



PROGRAMMES

15

IT, AI & SOFTWARE DEVELOPMENT

COMPLETE PROGRAMME GUIDE • 2026

# IT, AI & Software Development

Course Details & Career Growth Guide

Every IT, AI & Software Development programme at IPCS Global Coimbatore in one place — full syllabus, module-by-module topics, tools, projects, certification, job roles, salary progression and next steps.

15 Programmes

1 to 6 Months

Syllabus + Career Growth

Placement Support

# What's Inside

## INTRODUCTION

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| Industry Outlook & Where You Can Work                        | 4 |
| All Programmes at a Glance                                   | 5 |

## PROGRAMMES — COURSE DETAILS & CAREER GROWTH

|                                                                           |    |
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| 01. Certified Artificial Intelligence Professional · 3 Months · 300 hrs   | 7  |
| 02. Professional Diploma in Artificial Intelligence · 6 Months · 480 hrs  | 12 |
| 03. Professional Diploma in Python with Data Science · 6 Months · 480 hrs | 18 |
| 04. Professional Data Analytics · 6 Months · 480 hrs                      | 24 |
| 05. Advanced Python Full Stack Developer · 6 Months · 480 hrs             | 30 |
| 06. Python Full Stack Developer · 3 Months · 240 hrs                      | 36 |
| 07. MERN Stack Developer · 6 Months · 480 hrs                             | 42 |
| 08. MEAN Stack Developer · 6 Months · 480 hrs                             | 48 |
| 09. Java Full Stack Developer · 3 Months · 240 hrs                        | 54 |
| 10. Certified Java Programmer · 2 Months · 180 hrs                        | 59 |
| 11. Full Stack PHP Developer · 3 Months · 240 hrs                         | 64 |
| 12. Certified Power BI Developer · 1 Month · 90 hrs                       | 69 |
| 13. Business Analytics Certification · 2 Months · 180 hrs                 | 75 |
| 14. Advanced QA Automation Testing · 4 Months · 360 hrs                   | 80 |
| 15. Software Testing (Basics) · 2 Months · 180 hrs                        | 86 |

## TRAINING, CERTIFICATION & PLACEMENT

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# IPCS Global — Since 2008

IPCS Global began in 2008 as a specialised industrial automation training and services provider and has grown into one of India's leading technical and digital skills institutes, with 50+ branches across India and the GCC. Our Coimbatore centre in Peelamedu combines classroom teaching with hands-on labs, and every learner is coached in communication, aptitude and interview readiness alongside technical skills.

18+

YEARS

15,000+

PROFESSIONALS TRAINED

50+

BRANCHES

100%

PLACEMENT ASSISTANCE

## About the IT, AI & Software Development Stream

From AI and data science to full stack development and QA automation, our IT programmes are built around real projects and portfolios — so you graduate able to show employers what you can build, not just what you studied.



### ISO 9001:2015 Certified

Audited, consistent training quality.



### TÜV SÜD Cooperation Partner

Partner of the German testing & certification body.



### NSDC Approved Partner

Approved training partner under Skill India.



Inside the IPCS Global Coimbatore training centre.

# Why IT, AI & Software Development, **Why Now**

The demand behind every programme in this guide — and the industries that hire our graduates.

- 1 Software runs every business**  
Banks, hospitals, retailers and startups all need web applications, data pipelines and quality assurance — creating steady demand for skilled developers and analysts.
- 2 AI and data are the new core**  
Companies are investing heavily in AI, analytics and automation. Candidates who can build with data and AI stand out immediately.
- 3 Skills beat degrees**  
IT hiring increasingly tests what you can build. A strong project portfolio and GitHub profile can open doors regardless of your academic background.

## Where You Can Work

- 1 IT services & consulting**
- 2 Product companies & SaaS**
- 3 Startups**
- 4 Banking, finance & insurance (BFSI)**
- 5 Healthcare & e-commerce**
- 6 Global capability centres (GCCs)**

## Three Ways to Build Your Career

### Full-Time Job

Join a company with placement support behind you — stability and structured growth.

### Job + Freelance

Hold a job while taking side projects to build income and a broader portfolio.

### Remote & Global

IT skills are the most globally portable: remote roles, freelance projects and overseas opportunities (GCC, Europe, US, Singapore) are all realistic with experience and a strong portfolio.

# All Programmes at a Glance

15 programmes to match every background and goal. Full course details and a career guide for each follow in this document.

| #  | PROGRAMME                                               | DURATION | HOURS | TYPE                 | BEST FOR                                                   | PAGE      |
|----|---------------------------------------------------------|----------|-------|----------------------|------------------------------------------------------------|-----------|
| 01 | <b>Certified Artificial Intelligence Professional</b>   | 3 Months | 300   | Career programme     | BE / B.Tech / BSc / BCA / MCA graduates                    | <b>7</b>  |
| 02 | <b>Professional Diploma in Artificial Intelligence</b>  | 6 Months | 480   | Career programme     | Engineering, science & computer application graduates      | <b>12</b> |
| 03 | <b>Professional Diploma in Python with Data Science</b> | 6 Months | 480   | Career programme     | Engineering, science, maths & commerce graduates           | <b>18</b> |
| 04 | <b>Professional Data Analytics</b>                      | 6 Months | 480   | Career programme     | Graduates from any stream (commerce, science, engineering) | <b>24</b> |
| 05 | <b>Advanced Python Full Stack Developer</b>             | 6 Months | 480   | Career programme     | BE / B.Tech / BSc / BCA / MCA students & graduates         | <b>30</b> |
| 06 | <b>Python Full Stack Developer</b>                      | 3 Months | 240   | Fast-track programme | Students & fresh graduates                                 | <b>36</b> |
| 07 | <b>MERN Stack Developer</b>                             | 6 Months | 480   | Career programme     | BE / B.Tech / BSc / BCA / MCA students & graduates         | <b>42</b> |
| 08 | <b>MEAN Stack Developer</b>                             | 6 Months | 480   | Career programme     | BE / B.Tech / BSc / BCA / MCA students & graduates         | <b>48</b> |
| 09 | <b>Java Full Stack Developer</b>                        | 3 Months | 240   | Career programme     | BE / B.Tech / MCA / BCA graduates                          | <b>54</b> |
| 10 | <b>Certified Java Programmer</b>                        | 2 Months | 180   | Fast-track programme | Engineering & computer applications students               | <b>59</b> |
| 11 | <b>Full Stack PHP Developer</b>                         | 3 Months | 240   | Career programme     | Students & fresh graduates                                 | <b>64</b> |
| 12 | <b>Certified Power BI Developer</b>                     | 1 Month  | 90    | Short course         | Excel users & MIS executives                               | <b>69</b> |
| 13 | <b>Business Analytics Certification</b>                 | 2 Months | 180   | Career programme     | Commerce, BBA & MBA students                               | <b>75</b> |
| 14 | <b>Advanced QA Automation Testing</b>                   | 4 Months | 360   | Career programme     | BE / B.Tech / BSc / BCA / MCA graduates                    | <b>80</b> |
| 15 | <b>Software Testing (Basics)</b>                        | 2 Months | 180   | Entry-level course   | Any graduates entering IT                                  | <b>86</b> |

## Recommended Pathways

1

**Certified Artificial Intelligence Professional → Professional Diploma in Artificial Intelligence (6 months)**

- 
- 2 Professional Diploma in Artificial Intelligence → Cloud ML certifications
  - 3 Professional Diploma in Python with Data Science → Professional Diploma in AI
  - 4 Professional Data Analytics → Professional Diploma in Python with Data Science
  - 5 Advanced Python Full Stack Developer → Certified AI Professional (add AI to your apps)
  - 6 Python Full Stack Developer → Advanced Python Full Stack Developer (6 months)
  - 7 MERN Stack Developer → Certified AI Professional
  - 8 MEAN Stack Developer → Certified AI Professional
  - 9 Java Full Stack Developer → Spring Boot & microservices
  - 10 Certified Java Programmer → Java Full Stack Developer (3 months)
  - 11 Full Stack PHP Developer → MERN Stack Developer
  - 12 Certified Power BI Developer → Business Analytics Certification
  - 13 Business Analytics Certification → Professional Data Analytics (6 months)
  - 14 Advanced QA Automation Testing → ISTQB Foundation / Advanced certification
  - 15 Software Testing (Basics) → Advanced QA Automation Testing (4 months)

# Certified Artificial Intelligence Professional

An intensive AI programme — from advanced Python to deep learning, NLP, computer vision and generative AI.

3 Months

300 Hours

6 Modules

5 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A fast-paced, project-heavy programme for learners who can commit to intensive study. You build a strong Python base, then cover machine learning, deep learning, NLP, computer vision and generative AI, and finish by deploying a capstone AI application.

**DURATION****3 Months****TRAINING HOURS****300 Hours****MODULES****6 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ BE / B.Tech / BSc / BCA / MCA graduates
- ✓ Software developers moving into AI
- ✓ Data analysts levelling up
- ✓ Final-year students with programming basics

**Eligibility:** Degree in engineering, science or computer applications. Basic programming and maths comfort recommended.

#### What You'll Be Able To Do

- ✓ Build ML models end-to-end
- ✓ Train deep neural networks
- ✓ Build NLP and LLM-powered applications
- ✓ Apply computer vision and generative AI
- ✓ Deploy AI models to production

# The Full Syllabus

6 modules, 300 hours.

|    |                                              |        |
|----|----------------------------------------------|--------|
| 01 | Foundations of AI & Advanced Python          | 40 Hrs |
| 02 | Machine Learning Algorithms                  | 50 Hrs |
| 03 | Deep Learning with Neural Networks           | 50 Hrs |
| 04 | Natural Language Processing (NLP)            | 45 Hrs |
| 05 | Computer Vision & Generative AI              | 50 Hrs |
| 06 | AI in Production, Research Trends & Capstone | 65 Hrs |

Total Training Duration

300 Hours

## Module-by-Module Topics

|                                                                                                                                                                                                                                                                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><div>MODULE 01</div><div>40 Hrs</div><div><b>Foundations of AI &amp; Advanced Python</b><ul style="list-style-type: none"><li>AI landscape &amp; use cases</li><li>OOP: classes, inheritance, polymorphism</li><li>File handling &amp; exceptions</li><li>NumPy &amp; Pandas</li></ul></div></div>                           | <div><div>MODULE 02</div><div>50 Hrs</div><div><b>Machine Learning Algorithms</b><ul style="list-style-type: none"><li>Supervised learning: regression &amp; classification</li><li>Unsupervised learning: clustering &amp; PCA</li><li>Decision trees, random forests &amp; boosting</li><li>Model evaluation &amp; cross-validation</li><li>Feature engineering &amp; pipelines (scikit-learn)</li></ul></div></div> |
| <div><div>MODULE 03</div><div>50 Hrs</div><div><b>Deep Learning with Neural Networks</b><ul style="list-style-type: none"><li>Neural network fundamentals</li><li>TensorFlow / Keras &amp; PyTorch</li><li>CNNs for images</li><li>RNNs, LSTMs &amp; sequence models</li><li>Transfer learning &amp; tuning</li></ul></div></div> | <div><div>MODULE 04</div><div>45 Hrs</div><div><b>Natural Language Processing (NLP)</b><ul style="list-style-type: none"><li>Text preprocessing &amp; embeddings</li><li>Sentiment analysis &amp; classification</li><li>Transformers &amp; BERT</li><li>Large language models &amp; prompting</li><li>Retrieval-augmented generation (RAG) basics</li></ul></div></div>                                               |

#### MODULE 05

50 Hrs

### Computer Vision & Generative AI

- Image processing with OpenCV
- Object detection (YOLO)
- Image segmentation
- Diffusion models & image generation
- Building GenAI apps with APIs

#### MODULE 06

65 Hrs

### AI in Production, Research Trends & Capstone

- Model deployment with FastAPI & Docker
- MLOps basics
- Current research trends
- Capstone AI project

Certified Artificial Intelligence Professional - Part A

## Tools, Projects & Assessment

### Tools & Technologies You'll Use

Python

Jupyter / Colab

NumPy & Pandas

scikit-learn

TensorFlow / Keras

PyTorch

Hugging Face

OpenCV

LangChain

Streamlit / FastAPI

Docker

Git & GitHub

### Projects You'll Build

1 House-price prediction model

2 Image classifier with CNNs

3 Sentiment analysis with transformers

4 RAG chatbot over documents

5 Deployed capstone AI app

### How You'll Be Assessed

1

#### Module Assessments

Practical and theory checks at the end of each module.

2

#### Project Reviews

Trainer review of your mini projects and final project.

3

#### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Certified Artificial Intelligence Professional Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### AI / ML Engineer

Builds and deploys machine learning models.

2

#### Data Scientist

Solves business problems with data and ML.

3

#### NLP / LLM Engineer

Builds language and GenAI applications.

4

#### Computer Vision Engineer

Builds image and video intelligence.

5

#### MLOps Engineer

Deploys and monitors models in production.

6

#### AI Product Developer

Builds AI features into applications.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior ML / AI Engineer

Build, train and evaluate models.

₹4 – 7 LPA

STAGE

02

2-5 YRS

#### ML / AI Engineer

Own models and AI features in production.

₹7 – 14 LPA

STAGE

03

5-8 YRS

#### Senior ML Engineer / Lead

Architect AI systems and mentor teams.

₹14 – 28 LPA

STAGE

04

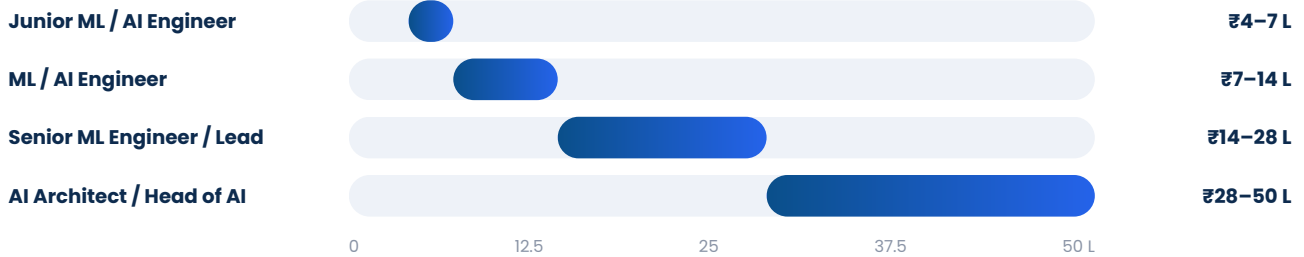
8+ YRS

#### AI Architect / Head of AI

Set AI strategy and lead organisations.

₹28 – 50 LPA

## ■ Annual Salary Range (CTC) – ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ LLM engineering: RAG, agents, fine-tuning
- ✓ Cloud ML (AWS SageMaker, Azure ML, Vertex AI)
- ✓ Big data (Spark)
- ✓ Advanced MLOps
- ✓ Research paper reading & implementation

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ AWS Certified Machine Learning – Specialty / ML Engineer
- ✓ Microsoft Azure AI Engineer
- ✓ Google Professional ML Engineer

## ■ Upgrade Path at IPCS Global

1 Professional Diploma in Artificial Intelligence (6 months)

2 Cloud AI certifications (AWS / Azure / Google)

## ■ Your First 12 Months After the Course

1

### Month 0–1 • Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 • First Role

Join as a Junior ML / AI Engineer.

3

### Month 3–6 • Get Certified

Earn one certification from the list above.

4

### Month 6–12 • Specialise

Pick a specialisation and own a project, system or channel.

# Professional Diploma in Artificial Intelligence

The complete AI diploma — maths, ML, deep learning, NLP, CV, reinforcement learning, MLOps and responsible AI.

6 Months

480 Hours

10 Modules

5 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

Our most in-depth AI programme. With the maths behind AI, extensive machine learning and deep learning, NLP, computer vision, reinforcement learning, MLOps and responsible AI, you graduate able to build, deploy and explain real AI systems — with a 60-hour capstone to prove it.

#### DURATION

**6 Months**

#### TRAINING HOURS

**480 Hours**

#### MODULES

**10 Structured Modules**

#### MODE

**Classroom / Online / Hybrid**

#### BATCHES

**Weekday · Weekend · Fast-track**

#### CERTIFICATION

**TÜV SÜD + IPCS Global**

### Who Should Join

- ✓ Engineering, science & computer application graduates
- ✓ Developers & analysts moving into AI
- ✓ Final-year students
- ✓ Professionals building AI products

**Eligibility:** Degree in engineering, science or computer applications (final-year students welcome).

### What You'll Be Able To Do

- ✓ Apply linear algebra, calculus and statistics to ML
- ✓ Build and evaluate ML and deep learning models
- ✓ Build NLP, LLM and computer vision solutions
- ✓ Train reinforcement learning agents
- ✓ Deploy and monitor models with MLOps
- ✓ Apply responsible, ethical AI practices

## The Full Syllabus

10 modules, 480 hours, delivered in three phases that each build on the last.

### 01 · FOUNDATION

**Modules 1–2 · 80 Hours**

Python and the maths behind AI.

### 02 · CORE AI

**Modules 3–7 · 290 Hours**

ML, deep learning, NLP, computer vision and reinforcement learning.

### 03 · PRODUCTION

**Modules 8–10 · 110 Hours**

MLOps, responsible AI and a full capstone.

|    |                                   |        |
|----|-----------------------------------|--------|
| 01 | Introduction to AI & Python       | 40 Hrs |
| 02 | Mathematics for AI                | 40 Hrs |
| 03 | Machine Learning                  | 80 Hrs |
| 04 | Deep Learning                     | 80 Hrs |
| 05 | Natural Language Processing (NLP) | 60 Hrs |
| 06 | Computer Vision (CV)              | 40 Hrs |
| 07 | Reinforcement Learning            | 30 Hrs |
| 08 | MLOps & Deployment                | 30 Hrs |
| 09 | Responsible AI                    | 20 Hrs |
| 10 | AI Capstone Project               | 60 Hrs |

**Total Training Duration**

**480 Hours**

## Module-by-Module Topics

### MODULE 01

40 Hrs

#### Introduction to AI & Python

- AI history, types & applications
- Python syntax, data types & operators
- Control flow, functions & modules
- Lists, tuples, dictionaries & sets
- OOP: classes, inheritance, polymorphism

### MODULE 02

40 Hrs

#### Mathematics for AI

- Linear algebra: vectors & matrices
- Calculus & gradient descent
- Probability & statistics
- Optimisation basics

**MODULE 03**

80 Hrs

**Machine Learning**

- Supervised learning: regression & classification
- Unsupervised learning: clustering & PCA
- Decision trees, random forests & boosting
- Model evaluation & cross-validation
- Feature engineering & pipelines (scikit-learn)

**MODULE 04**

80 Hrs

**Deep Learning**

- Neural network fundamentals
- TensorFlow / Keras & PyTorch
- CNNs for images
- RNNs, LSTMs & sequence models
- Transfer learning & tuning

**MODULE 05**

60 Hrs

**Natural Language Processing (NLP)**

- Text preprocessing & embeddings
- Sentiment analysis & classification
- Transformers & BERT
- Large language models & prompting
- Retrieval-augmented generation (RAG) basics

**MODULE 06**

40 Hrs

**Computer Vision (CV)**

- Image processing with OpenCV
- Object detection (YOLO)
- Image segmentation
- Face & pose recognition

**MODULE 07**

30 Hrs

**Reinforcement Learning**

- MDPs & rewards
- Q-learning
- Deep Q-Networks
- Policy gradients

**MODULE 08**

30 Hrs

**MLOps & Deployment**

- FastAPI & Docker
- MLflow & experiment tracking
- CI/CD for ML
- Cloud deployment

**MODULE 09**

20 Hrs

**Responsible AI**

- Bias & fairness
- Explainability (SHAP, LIME)
- Privacy & AI regulation

**MODULE 10**

60 Hrs

**AI Capstone Project**

- Problem framing
- Data to deployment
- Presentation & review

**Professional Diploma in Artificial Intelligence · Part A****Tools, Projects & Assessment****Tools & Technologies You'll Use**

Python

Jupyter / Colab

NumPy &amp; Pandas

scikit-learn

TensorFlow / Keras

PyTorch

Hugging Face

OpenCV

LangChain

Streamlit / FastAPI

Docker

Git &amp; GitHub

MLflow

OpenAI Gym / Gymnasium

## ■ Projects You'll Build

- 1 Customer churn prediction
- 2 Object detection system
- 3 LLM-powered assistant with RAG
- 4 RL game agent
- 5 End-to-end deployed capstone

## ■ How You'll Be Assessed

1

### Module Assessments

Practical and theory checks at the end of each module.

2

### Project Reviews

Trainer review of your mini projects and final project.

3

### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Professional Diploma in Artificial Intelligence Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### AI / ML Engineer

Builds and deploys machine learning models.

2

#### Data Scientist

Solves business problems with data and ML.

3

#### NLP / LLM Engineer

Builds language and GenAI applications.

4

#### Computer Vision Engineer

Builds image and video intelligence.

5

#### MLOps Engineer

Deploys and monitors models in production.

6

#### AI Product Developer

Builds AI features into applications.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior ML / AI Engineer

Build, train and evaluate models.

₹4 – 7 LPA

STAGE

02

2-5 YRS

#### ML / AI Engineer

Own models and AI features in production.

₹7 – 14 LPA

STAGE

03

5-8 YRS

#### Senior ML Engineer / Lead

Architect AI systems and mentor teams.

₹14 – 28 LPA

STAGE

04

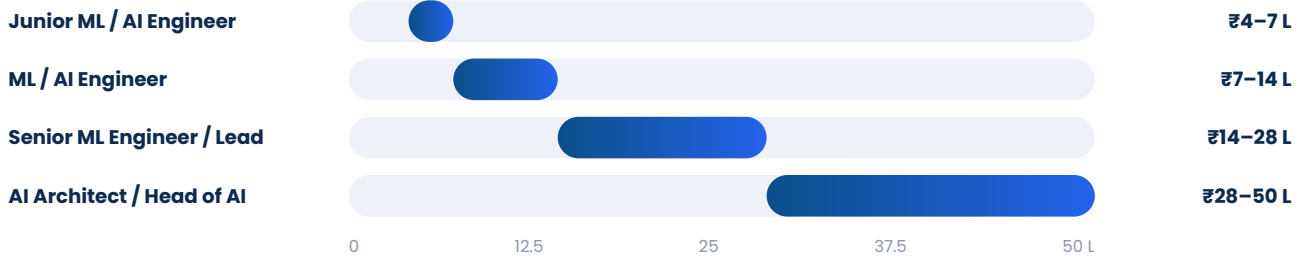
8+ YRS

#### AI Architect / Head of AI

Set AI strategy and lead organisations.

₹28 – 50 LPA

## ■ Annual Salary Range (CTC) – ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ LLM engineering: RAG, agents, fine-tuning
- ✓ Cloud ML (AWS SageMaker, Azure ML, Vertex AI)
- ✓ Big data (Spark)
- ✓ Advanced MLOps
- ✓ Research paper reading & implementation

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ AWS Certified Machine Learning – Specialty / ML Engineer
- ✓ Microsoft Azure AI Engineer
- ✓ Google Professional ML Engineer

## ■ Upgrade Path at IPCS Global

- 1 Cloud ML certifications
- 2 Specialisation in GenAI / LLM engineering

## ■ Your First 12 Months After the Course

**1**  
**Month 0-1 · Get Visible**  
Polish your resume and portfolio; apply through the IPCS placement cell's drives.

**2**  
**Month 1-3 · First Role**  
Join as a Junior ML / AI Engineer.

**3**  
**Month 3-6 · Get Certified**  
Earn one certification from the list above.

**4**  
**Month 6-12 · Specialise**  
Pick a specialisation and own a project, system or channel.

# Professional Diploma in Python with Data Science

Python, statistics, machine learning, deep learning, NLP and SQL — the complete data science toolkit.

6 Months

480 Hours

11 Modules

5 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 6-month diploma that turns you into a working data scientist. You learn Python, statistics, data wrangling and visualisation, then spend 120 hours on machine learning before moving into deep learning, NLP and SQL, finishing with a 60-hour capstone.

**DURATION****6 Months****TRAINING HOURS****480 Hours****MODULES****11 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ Engineering, science, maths & commerce graduates
- ✓ Analysts moving into data science
- ✓ Software professionals
- ✓ Final-year students

**Eligibility:** Any degree with basic maths comfort (final-year students welcome).

#### What You'll Be Able To Do

- ✓ Clean, transform and explore real datasets
- ✓ Apply statistics to business questions
- ✓ Build and tune ML models
- ✓ Use deep learning and NLP
- ✓ Query databases with SQL
- ✓ Present insights to stakeholders

## The Full Syllabus

11 modules, 480 hours, delivered in three phases that each build on the last.

### 01 · FOUNDATION

#### Modules 1–5 · 168 Hours

Python, statistics, data wrangling and visualisation.

### 02 · MODELLING

#### Modules 6–8 · 205 Hours

Machine learning, deep learning and NLP.

### 03 · PROFESSIONAL

#### Modules 9–11 · 107 Hours

SQL, project management and capstone.

|    |                                           |         |
|----|-------------------------------------------|---------|
| 01 | Foundations of Data Science               | 3 Hrs   |
| 02 | Programming for Data Science – Python     | 60 Hrs  |
| 03 | Statistics & Probability for Data Science | 20 Hrs  |
| 04 | Data Wrangling & Preprocessing            | 45 Hrs  |
| 05 | Data Visualization                        | 40 Hrs  |
| 06 | Machine Learning                          | 120 Hrs |
| 07 | Deep Learning                             | 45 Hrs  |
| 08 | Natural Language Processing (NLP)         | 40 Hrs  |
| 09 | SQL for Data Science                      | 30 Hrs  |
| 10 | Data Science Project Management           | 17 Hrs  |
| 11 | Capstone Project                          | 60 Hrs  |

Total Training Duration

**480 Hours**

## Module-by-Module Topics

**MODULE 01****3 Hrs****Foundations of Data Science**

- Data science lifecycle & roles

**MODULE 02****60 Hrs****Programming for Data Science – Python**

- Python syntax, data types & operators
- Control flow, functions & modules
- Lists, tuples, dictionaries & sets
- OOP: classes, inheritance, polymorphism
- File handling & exceptions
- NumPy & Pandas

**MODULE 03****20 Hrs****Statistics & Probability for Data Science**

- Descriptive statistics
- Probability distributions
- Hypothesis testing
- Correlation & regression

**MODULE 04****45 Hrs****Data Wrangling & Preprocessing**

- Missing values & outliers
- Merging & reshaping data
- Feature engineering
- Scaling & encoding

**MODULE 05****40 Hrs****Data Visualization**

- Matplotlib & Seaborn
- Storytelling with data
- Dashboards & KPIs
- Plotly interactive charts

**MODULE 06****120 Hrs****Machine Learning**

- Supervised learning: regression & classification
- Unsupervised learning: clustering & PCA
- Decision trees, random forests & boosting
- Model evaluation & cross-validation
- Feature engineering & pipelines (scikit-learn)
- Time-series forecasting
- Model deployment basics

**MODULE 07****45 Hrs****Deep Learning**

- Neural network fundamentals
- TensorFlow / Keras & PyTorch
- CNNs for images
- RNNs, LSTMs & sequence models

**MODULE 08****40 Hrs****Natural Language Processing (NLP)**

- Text preprocessing & embeddings
- Sentiment analysis & classification
- Transformers & BERT
- Large language models & prompting

**MODULE 09****30 Hrs****SQL for Data Science**

- Relational databases & normalisation
- SELECT, JOINS & aggregations
- Subqueries, CTEs & window functions
- Indexes & query optimisation

**MODULE 10****17 Hrs****Data Science Project Management**

- CRISP-DM
- Agile for data teams
- Communicating results

## MODULE 11

60 Hrs

### Capstone Project

- Real dataset
- End-to-end pipeline
- Presentation

Professional Diploma in Python with Data Science · Part A

## Tools, Projects & Assessment

### Tools & Technologies You'll Use

Python

Jupyter

NumPy

Pandas

Matplotlib

Seaborn

Plotly

scikit-learn

TensorFlow / Keras

NLTK / spaCy

MySQL

Git

### Projects You'll Build

1 Exploratory analysis of sales data

2 Loan default prediction

3 Sales forecasting

4 Review sentiment classifier

5 Capstone data science project

### How You'll Be Assessed

1

#### Module Assessments

Practical and theory checks at the end of each module.

2

#### Project Reviews

Trainer review of your mini projects and final project.

3

#### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Professional Diploma in Python with Data Science Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### Data Scientist

Builds predictive models for business decisions.

2

#### Data Analyst

Analyses data and builds reports.

3

#### Machine Learning Engineer

Productionises ML models.

4

#### Business Intelligence Analyst

Builds dashboards and KPIs.

5

#### NLP Analyst

Analyses text data at scale.

6

#### Research / Analytics Associate

Supports data-driven research.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior Data Scientist / Analyst

Clean data, analyse and build models.

₹3.5 – 6 LPA

STAGE

02

2-5 YRS

#### Data Scientist

Own models and insights for business teams.

₹6 – 12 LPA

STAGE

03

5-8 YRS

#### Senior Data Scientist / Lead

Lead data science projects.

₹12 – 24 LPA

STAGE

04

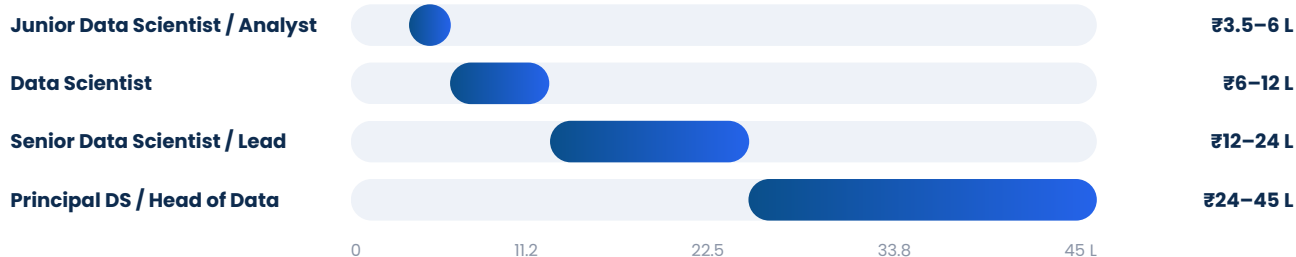
8+ YRS

#### Principal DS / Head of Data

Set data strategy and lead teams.

₹24 – 45 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Cloud data platforms
- ✓ Spark & big data
- ✓ MLOps
- ✓ Advanced statistics & experimentation
- ✓ GenAI & LLM applications

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Microsoft Azure Data Scientist
- ✓ Google Professional Data Engineer
- ✓ AWS ML certifications

## ■ Upgrade Path at IPCS Global

1 Professional Diploma in AI

2 Cloud data certifications

## ■ Your First 12 Months After the Course

1

### Month 0–1 · Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 · First Role

Join as a Junior Data Scientist / Analyst.

3

### Month 3–6 · Get Certified

Earn one certification from the list above.

4

### Month 6–12 · Specialise

Pick a specialisation and own a project, system or channel.

# Professional Data Analytics

Excel, SQL, Python, Power BI & Tableau-style visualisation and predictive analytics – analyst-ready in six months.

6 Months

480 Hours

12 Modules

5 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A job-focused analytics programme with heavy emphasis on visualisation (150 hours), advanced Excel, SQL and Python. You learn to collect, clean and explore data, build dashboards, run predictive analysis and translate numbers into business decisions.

#### DURATION

**6 Months**

#### TRAINING HOURS

**480 Hours**

#### MODULES

**12 Structured Modules**

#### MODE

**Classroom / Online / Hybrid**

#### BATCHES

**Weekday · Weekend · Fast-track**

#### CERTIFICATION

**TÜV SÜD + IPCS Global**

### Who Should Join

- ✓ Graduates from any stream (commerce, science, engineering)
- ✓ MBA & management students
- ✓ Working professionals handling data
- ✓ Career switchers

**Eligibility:** Any degree. No coding experience required.

### What You'll Be Able To Do

- ✓ Master advanced Excel for analysis
- ✓ Write SQL queries confidently
- ✓ Analyse data with Python
- ✓ Build interactive Power BI dashboards
- ✓ Apply predictive analytics
- ✓ Communicate insights to business teams

# The Full Syllabus

12 modules, 480 hours.

|    |                                            |         |
|----|--------------------------------------------|---------|
| 01 | Introduction to Data Analytics             | 4 Hrs   |
| 02 | Programming for Data Analytics             | 60 Hrs  |
| 03 | Statistical Foundations for Data Analytics | 20 Hrs  |
| 04 | Data Visualization                         | 150 Hrs |
| 05 | Data Collection & Preparation              | 15 Hrs  |
| 06 | Exploratory Data Analysis (EDA)            | 15 Hrs  |
| 07 | Predictive Analytics                       | 45 Hrs  |
| 08 | Advanced Excel for Data Analytics          | 45 Hrs  |
| 09 | Business Analytics & Intelligence          | 20 Hrs  |
| 10 | Databases & SQL                            | 42 Hrs  |
| 11 | Data Ethics & Privacy                      | 4 Hrs   |
| 12 | Capstone Project                           | 60 Hrs  |

Total Training Duration

480 Hours

# Module-by-Module Topics

|                                                                                                                                                                     |                                                                                                                                                                                                                                                                                                                        |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <div><b>MODULE 01</b></div> <div><b>Introduction to Data Analytics</b></div> <div><ul style="list-style-type: none"><li>Analytics types &amp; roles</li></ul></div> | <div><b>MODULE 02</b></div> <div><b>Programming for Data Analytics</b></div> <div><ul style="list-style-type: none"><li>Python syntax, data types &amp; operators</li><li>Control flow, functions &amp; modules</li><li>Lists, tuples, dictionaries &amp; sets</li><li>Pandas &amp; NumPy for analysis</li></ul></div> |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

**MODULE 03**

20 Hrs

**Statistical Foundations for Data Analytics**

- Descriptive & inferential statistics
- Hypothesis testing

**MODULE 04**

150 Hrs

**Data Visualization**

- Matplotlib & Seaborn
- Storytelling with data
- Dashboards & KPIs
- Power BI: modelling, DAX & dashboards
- Tableau fundamentals
- Excel charts & dashboards

**MODULE 05**

15 Hrs

**Data Collection & Preparation**

- Sources & data cleaning

**MODULE 06**

15 Hrs

**Exploratory Data Analysis (EDA)**

- Patterns, trends & outliers

**MODULE 07**

45 Hrs

**Predictive Analytics**

- Regression & classification
- Forecasting
- Model evaluation

**MODULE 08**

45 Hrs

**Advanced Excel for Data Analytics**

- Lookups, pivots & Power Query
- What-if analysis
- Dashboard design

**MODULE 09**

20 Hrs

**Business Analytics & Intelligence**

- KPIs & business metrics
- BI strategy

**MODULE 10**

42 Hrs

**Databases & SQL**

- Relational databases & normalisation
- SELECT, JOINS & aggregations
- Subqueries, CTEs & window functions
- Indexes & query optimisation

**MODULE 11**

4 Hrs

**Data Ethics & Privacy**

- Data protection & ethics

**MODULE 12**

60 Hrs

**Capstone Project**

- Business case
- Dashboard & report
- Presentation

**Professional Data Analytics · Part A****Tools, Projects & Assessment****■ Tools & Technologies You'll Use**

Microsoft Excel

Power Query

Power BI

Tableau

MySQL

Python

Pandas

Jupyter

## ■ Projects You'll Build

- 1 Sales performance Excel dashboard
- 2 SQL analysis of an e-commerce database
- 3 Power BI executive dashboard
- 4 Predictive sales model
- 5 Capstone business analytics report

## ■ How You'll Be Assessed

1

### Module Assessments

Practical and theory checks at the end of each module.

2

### Project Reviews

Trainer review of your mini projects and final project.

3

### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Professional Data Analytics Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### Data Analyst

Turns data into reports and insights.

2

#### Business Analyst

Bridges business needs and data.

3

#### MIS / Reporting Analyst

Builds recurring business reports.

4

#### Power BI / Tableau Developer

Builds interactive dashboards.

5

#### Marketing / Sales Analyst

Analyses campaigns and sales.

6

#### Operations Analyst

Improves processes with data.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior Data Analyst

Clean data, build reports and dashboards.

₹3 – 5 LPA

STAGE

02

2-5 YRS

#### Data Analyst

Own analyses for business teams.

₹5 – 9 LPA

STAGE

03

5-8 YRS

#### Senior Analyst / Analytics Lead

Lead analytics projects and stakeholders.

₹9 – 16 LPA

STAGE

04

8+ YRS

#### Analytics Manager

Run analytics functions.

₹16 – 28 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Python for analytics
- ✓ Advanced SQL
- ✓ Statistics & A/B testing
- ✓ Cloud data warehouses
- ✓ Data storytelling

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Microsoft PL-300 (Power BI Data Analyst)
- ✓ Tableau Desktop Specialist
- ✓ Google Data Analytics Certificate

## ■ Upgrade Path at IPCS Global

1 Professional Diploma in Python with Data Science

2 Microsoft PL-300 (Power BI) certification

## ■ Your First 12 Months After the Course

1

### Month 0–1 • Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 • First Role

Join as a Junior Data Analyst.

3

### Month 3–6 • Get Certified

Earn one certification from the list above.

4

### Month 6–12 • Specialise

Pick a specialisation and own a project, system or channel.

# Advanced Python Full Stack Developer

Frontend, Python, Flask, Django, REST APIs, React and AWS deployment — full stack in six months.

6 Months

480 Hours

9 Modules

5 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A complete full stack programme built around Python. You master HTML, CSS, JavaScript and Bootstrap, Python fundamentals, Flask and FastAPI with databases, a deep 120-hour Django module, Django REST APIs, React JS, and cloud deployment on AWS — ending with a full stack project.

#### DURATION

**6 Months**

#### TRAINING HOURS

**480 Hours**

#### MODULES

**9 Structured Modules**

#### MODE

**Classroom / Online / Hybrid**

#### BATCHES

**Weekday · Weekend · Fast-track**

#### CERTIFICATION

**TÜV SÜD + IPCS Global**

### Who Should Join

- ✓ BE / B.Tech / BSc / BCA / MCA students & graduates
- ✓ Polytechnic students
- ✓ Career switchers into software
- ✓ Anyone interested in web development

**Eligibility:** 12th pass or above with basic computer knowledge. No prior coding required.

### What You'll Be Able To Do

- ✓ Build responsive web interfaces
- ✓ Develop backends with Flask, FastAPI and Django
- ✓ Design REST APIs with JWT authentication
- ✓ Work with MySQL and PostgreSQL
- ✓ Build React frontends
- ✓ Deploy on AWS with Nginx and HTTPS

## The Full Syllabus

9 modules, 480 hours, delivered in three phases that each build on the last.

### 01 · FRONTEND FOUNDATION

#### Modules 1–2 · 95 Hours

HTML, CSS, JavaScript, Bootstrap and Git.

### 02 · PYTHON BACKEND

#### Modules 3–6 · 265 Hours

Python, Flask, FastAPI, Django and REST APIs.

### 03 · SHIP IT

#### Modules 7–9 · 120 Hours

AWS deployment, React and a full stack project.

|    |                                              |         |
|----|----------------------------------------------|---------|
| 01 | Introduction to Internet & Website Designing | 60 Hrs  |
| 02 | Bootstrap & Version Control Systems          | 35 Hrs  |
| 03 | Python Fundamentals & Getting Started        | 40 Hrs  |
| 04 | Python Web Framework with Database           | 60 Hrs  |
| 05 | Django Framework & Basics                    | 120 Hrs |
| 06 | Django REST APIs                             | 45 Hrs  |
| 07 | Basics of Cloud & Deployment                 | 45 Hrs  |
| 08 | Basics of React JS                           | 45 Hrs  |
| 09 | Django Full Stack Project                    | 30 Hrs  |

Total Training Duration

**480 Hours**

## Module-by-Module Topics

### MODULE 01

60 Hrs

#### Introduction to Internet & Website Designing

- HTML5 semantic markup & forms
- CSS3, Flexbox, Grid & responsive design
- JavaScript & ES6 fundamentals
- DOM manipulation & jQuery basics
- Web standards & best practices

### MODULE 02

35 Hrs

#### Bootstrap & Version Control Systems

- Bootstrap 5 grid & components
- Git fundamentals: commit, branch, merge
- GitHub repositories & pull requests
- Team collaboration workflows

**MODULE 03**

40 Hrs

**Python Fundamentals & Getting Started**

- Python syntax, data types & operators
- Control flow, functions & modules
- Lists, tuples, dictionaries & sets
- OOP: classes, inheritance, polymorphism
- Async programming basics

**MODULE 04**

60 Hrs

**Python Web Framework with Database**

- Flask framework
- FastAPI basics
- MySQL & PostgreSQL
- ORMs & migrations

**MODULE 05**

120 Hrs

**Django Framework & Basics**

- Django architecture (MVT)
- Models, views & templates
- Forms & admin
- Authentication & security
- Testing, caching & performance

**MODULE 06**

45 Hrs

**Django REST APIs**

- Django REST Framework
- CRUD APIs & serializers
- JWT authentication

**MODULE 07**

45 Hrs

**Basics of Cloud & Deployment**

- Linux basics
- AWS EC2 & S3
- Nginx, Gunicorn & HTTPS

**MODULE 08**

45 Hrs

**Basics of React JS**

- Components & props
- State management & hooks
- API integration

**MODULE 09**

30 Hrs

**Django Full Stack Project**

- Plan, build & deploy a full stack app

**Advanced Python Full Stack Developer · Part A****Tools, Projects & Assessment****● Tools & Technologies You'll Use**

VS Code

Python

Flask

FastAPI

Django

Django REST Framework

MySQL

PostgreSQL

React

Git &amp; GitHub

AWS

Nginx

Postman

## ■ Projects You'll Build

- 1 **Responsive portfolio website**
- 2 **Flask CRUD app**
- 3 **Django e-commerce site**
- 4 **REST API with JWT**
- 5 **Deployed React + Django full stack app**

## ■ How You'll Be Assessed

1

### **Module Assessments**

Practical and theory checks at the end of each module.

2

### **Project Reviews**

Trainer review of your mini projects and final project.

3

### **Certification**

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Advanced Python Full Stack Developer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### Python Full Stack Developer

Builds complete web applications.

2

#### Django Developer

Builds backends and APIs in Django.

3

#### Backend Developer

Designs APIs and databases.

4

#### React Frontend Developer

Builds modern user interfaces.

5

#### API Developer

Builds and integrates REST APIs.

6

#### Software Engineer

Develops and maintains software products.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior / Trainee Developer

Build features and fix bugs.

₹3 – 5 LPA

STAGE

02

2-5 YRS

#### Software Developer

Own modules and APIs.

₹5 – 10 LPA

STAGE

03

5-8 YRS

#### Senior Developer / Tech Lead

Design systems and lead teams.

₹10 – 18 LPA

STAGE

04

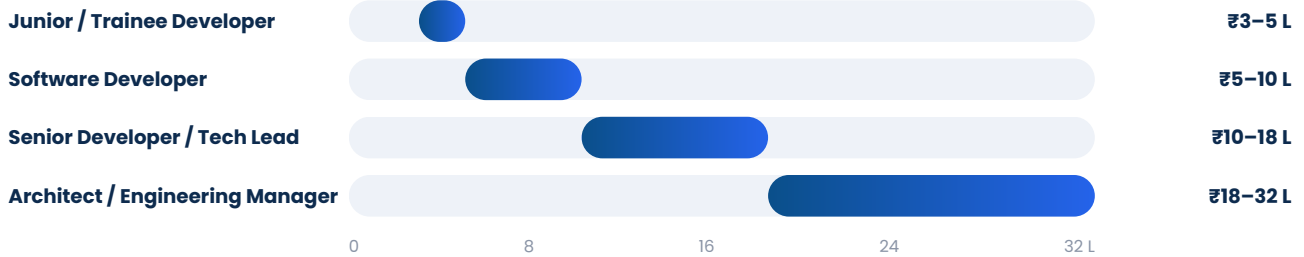
8+ YRS

#### Architect / Engineering Manager

Own architecture and delivery.

₹18 – 32 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Docker & Kubernetes
- ✓ System design
- ✓ Cloud (AWS) in depth
- ✓ AI integration in apps
- ✓ Testing & CI/CD

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ AWS Certified Developer – Associate
- ✓ PCEP / PCAP Python certifications
- ✓ Meta Front-End / Back-End certificates

## ■ Upgrade Path at IPCS Global

- 1 **Certified AI Professional (add AI to your apps)**
- 2 **AWS Cloud Practitioner / Developer certification**

## ■ Your First 12 Months After the Course

**1**  
**Month 0-1 · Get Visible**  
Polish your resume and portfolio; apply through the IPCS placement cell's drives.

**2**  
**Month 1-3 · First Role**  
Join as a Junior / Trainee Developer.

**3**  
**Month 3-6 · Get Certified**  
Earn one certification from the list above.

**4**  
**Month 6-12 · Specialise**  
Pick a specialisation and own a project, system or channel.

# Python Full Stack Developer

HTML, CSS, JavaScript, MySQL, Python and Django — build and deploy real web apps in three months.

3 Months

240 Hours

9 Modules

3 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 3-month fast track into Python web development. You learn frontend basics and MySQL, Python fundamentals, then go deep into Django — views, forms, templates, models, authentication, security and performance — before deploying and building a project.

**DURATION****3 Months****TRAINING HOURS****240 Hours****MODULES****9 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ Students & fresh graduates
- ✓ Career switchers
- ✓ Developers adding Python

**Eligibility:** 12th pass or above with basic computer knowledge.

#### What You'll Be Able To Do

- ✓ Build web pages with HTML, CSS & JavaScript
- ✓ Write Python programs
- ✓ Build Django applications
- ✓ Deploy a Django project

## The Full Syllabus

9 modules, 240 hours.

|    |                                            |        |
|----|--------------------------------------------|--------|
| 01 | HTML                                       | 10 Hrs |
| 02 | CSS                                        | 10 Hrs |
| 03 | JavaScript & jQuery                        | 10 Hrs |
| 04 | MySQL                                      | 10 Hrs |
| 05 | Python Fundamentals                        | 30 Hrs |
| 06 | Django Framework: Views, Forms & Templates | 55 Hrs |
| 07 | Django Models & Advanced Features          | 50 Hrs |
| 08 | Deploying Django                           | 25 Hrs |
| 09 | Project                                    | 40 Hrs |

Total Training Duration

**240 Hours**

## Module-by-Module Topics

|                                                                                                                                                                                                  |                                                                                                                                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>MODULE 01</b></p> <p><b>HTML</b></p> <ul style="list-style-type: none"><li>• HTML5 semantic markup &amp; forms</li></ul>                                                                   | <p><b>MODULE 02</b></p> <p><b>CSS</b></p> <ul style="list-style-type: none"><li>• CSS3, Flexbox, Grid &amp; responsive design</li></ul>                                           |
| <p><b>MODULE 03</b></p> <p><b>JavaScript &amp; jQuery</b></p> <ul style="list-style-type: none"><li>• JavaScript &amp; ES6 fundamentals</li><li>• DOM manipulation &amp; jQuery basics</li></ul> | <p><b>MODULE 04</b></p> <p><b>MySQL</b></p> <ul style="list-style-type: none"><li>• Relational databases &amp; normalisation</li><li>• SELECT, JOINS &amp; aggregations</li></ul> |

**MODULE 05**

30 Hrs

**Python Fundamentals**

- Getting started
- Data handling & strings
- Lists, tuples & dictionaries
- Operators & control flow
- Functions

**MODULE 06**

55 Hrs

**Django Framework: Views, Forms & Templates**

- Django admin
- Handling HTTP requests
- Forms & templates
- Function & class-based views

**MODULE 07**

50 Hrs

**Django Models & Advanced Features**

- Models & migrations
- Authentication & security
- Caching, pagination & logging
- Signals, i18n & async support
- Testing & performance

**MODULE 08**

25 Hrs

**Deploying Django**

- Server setup
- Static files & databases
- Production settings

**MODULE 09**

40 Hrs

**Project**

- Full Django application

**Python Full Stack Developer · Part A****Tools, Projects & Assessment****Tools & Technologies You'll Use**

VS Code

Python

Django

MySQL

Git &amp; GitHub

Postman

**Projects You'll Build**

1

Personal website

2

Django blog with authentication

3

Deployed project

## ■ How You'll Be Assessed

1

### Module Assessments

Practical and theory checks at the end of each module.

2

### Project Reviews

Trainer review of your mini projects and final project.

3

### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## PART B · CAREER GROWTH

### Where Python Full Stack Developer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

## ■ Roles You'll Be Ready For

1

### Python Full Stack Developer

Builds complete web applications.

2

### Django Developer

Builds backends and APIs in Django.

3

### Backend Developer

Designs APIs and databases.

4

### React Frontend Developer

Builds modern user interfaces.

5

### API Developer

Builds and integrates REST APIs.

6

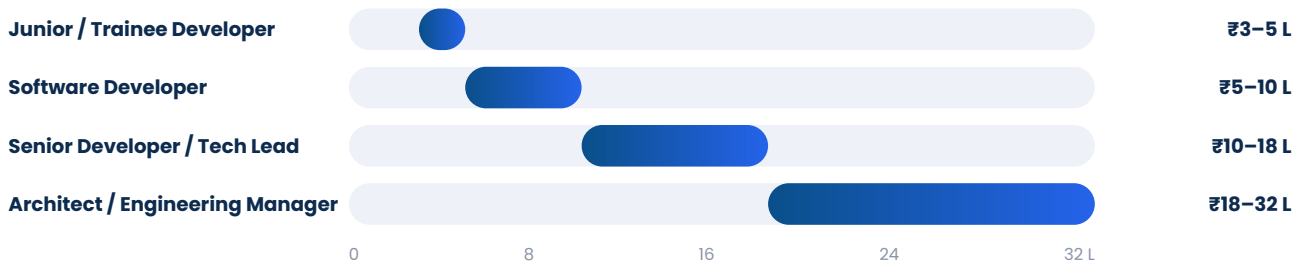
### Software Engineer

Develops and maintains software products.

## ■ Your Growth Ladder

|                               |                                                                          |                     |
|-------------------------------|--------------------------------------------------------------------------|---------------------|
| STAGE<br><b>01</b><br>0-2 YRS | <b>Junior / Trainee Developer</b><br>Build features and fix bugs.        | <b>₹3 – 5 LPA</b>   |
| STAGE<br><b>02</b><br>2-5 YRS | <b>Software Developer</b><br>Own modules and APIs.                       | <b>₹5 – 10 LPA</b>  |
| STAGE<br><b>03</b><br>5-8 YRS | <b>Senior Developer / Tech Lead</b><br>Design systems and lead teams.    | <b>₹10 – 18 LPA</b> |
| STAGE<br><b>04</b><br>8+ YRS  | <b>Architect / Engineering Manager</b><br>Own architecture and delivery. | <b>₹18 – 32 LPA</b> |

### ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Docker & Kubernetes
- ✓ System design
- ✓ Cloud (AWS) in depth
- ✓ AI integration in apps
- ✓ Testing & CI/CD

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ AWS Certified Developer – Associate
- ✓ PCEP / PCAP Python certifications
- ✓ Meta Front-End / Back-End certificates

## ■ Upgrade Path at IPCS Global

1 **Advanced Python Full Stack Developer (6 months)**

2 **Certified AI Professional**

## ■ Your First 12 Months After the Course

1

### **Month 0–1 · Get Visible**

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### **Month 1–3 · First Role**

Join as a Junior / Trainee Developer.

3

### **Month 3–6 · Get Certified**

Earn one certification from the list above.

4

### **Month 6–12 · Specialise**

Pick a specialisation and own a project, system or channel.

# MERN Stack Developer

MongoDB, Express, React and Node.js — plus Next.js, TypeScript and deployment.

6 Months

480 Hours

9 Modules

5 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A complete JavaScript full stack programme. You learn web fundamentals, Bootstrap and Git, MongoDB and SQL basics, modern JavaScript and Node.js, REST APIs with Express, then 130 hours of React including Next.js with server-side rendering, TypeScript and deployment — ending with a deployed MERN project.

#### DURATION

**6 Months**

#### TRAINING HOURS

**480 Hours**

#### MODULES

**9 Structured Modules**

#### MODE

**Classroom / Online / Hybrid**

#### BATCHES

**Weekday · Weekend · Fast-track**

#### CERTIFICATION

**TÜV SÜD + IPCS Global**

### Who Should Join

- ✓ BE / B.Tech / BSc / BCA / MCA students & graduates
- ✓ Frontend developers going full stack
- ✓ Career switchers into software

**Eligibility:** 12th pass or above with basic computer knowledge.

### What You'll Be Able To Do

- ✓ Build responsive UIs
- ✓ Write modern asynchronous JavaScript
- ✓ Build REST APIs with Node & Express
- ✓ Model data in MongoDB
- ✓ Build React & Next.js apps
- ✓ Deploy with CI/CD basics

## The Full Syllabus

9 modules, 480 hours, delivered in three phases that each build on the last.

### 01 · FOUNDATION

#### Modules 1–2 · 90 Hours

HTML, CSS, JavaScript, Bootstrap and Git.

### 02 · BACKEND

#### Modules 3–5 · 155 Hours

MongoDB, Node.js and Express REST APIs.

### 03 · FRONTEND & SHIP

#### Modules 6–9 · 235 Hours

React, Next.js, TypeScript and a deployed project.

|    |                                              |        |
|----|----------------------------------------------|--------|
| 01 | Introduction to Internet & Website Designing | 60 Hrs |
| 02 | Bootstrap & Version Control Systems          | 30 Hrs |
| 03 | SQL & NoSQL Databases – MongoDB              | 45 Hrs |
| 04 | Modern JavaScript & Introduction to Node.js  | 45 Hrs |
| 05 | REST API Creation using Express              | 65 Hrs |
| 06 | React JS Basics & Project Setup              | 65 Hrs |
| 07 | Advanced React & Next.js with SSR            | 65 Hrs |
| 08 | TypeScript & Deployment                      | 60 Hrs |
| 09 | MERN Stack Project & Deployment              | 45 Hrs |

Total Training Duration

**480 Hours**

## Module-by-Module Topics

### MODULE 01

60 Hrs

#### Introduction to Internet & Website Designing

- HTML5 semantic markup & forms
- CSS3, Flexbox, Grid & responsive design
- JavaScript & ES6 fundamentals
- DOM manipulation & jQuery basics
- Web standards & best practices

### MODULE 02

30 Hrs

#### Bootstrap & Version Control Systems

- Bootstrap 5 grid & components
- Git fundamentals: commit, branch, merge
- GitHub repositories & pull requests
- Team collaboration workflows

**MODULE 03**

45 Hrs

**SQL & NoSQL Databases – MongoDB**

- SQL vs NoSQL
- MongoDB CRUD & schema design
- Aggregation pipeline
- Mongoose ODM

**MODULE 04**

45 Hrs

**Modern JavaScript & Introduction to Node.js**

- ES6+ features
- Async/await & promises
- Node.js runtime & modules
- npm ecosystem

**MODULE 05**

65 Hrs

**REST API Creation using Express**

- Express routing & middleware
- CRUD APIs
- JWT authentication
- Validation & error handling

**MODULE 06**

65 Hrs

**React JS Basics & Project Setup**

- Components, props & state
- Hooks
- Routing
- API integration

**MODULE 07**

65 Hrs

**Advanced React & Next.js with SSR**

- State management (Context / Redux)
- Performance optimisation
- Next.js routing & SSR
- Full stack with Next.js

**MODULE 08**

60 Hrs

**TypeScript & Deployment**

- TypeScript fundamentals
- TypeScript with React & Node
- Deployment & CI/CD basics

**MODULE 09**

45 Hrs

**MERN Stack Project & Deployment**

- Build & deploy a production MERN app

**MERN Stack Developer · Part A****Tools, Projects & Assessment****Tools & Technologies You'll Use**

VS Code

Node.js

Express

MongoDB

React

Next.js

TypeScript

Git &amp; GitHub

Postman

Vercel / Render

## ■ Projects You'll Build

- 1 Responsive landing page
- 2 Express REST API with JWT
- 3 React dashboard
- 4 Next.js SSR blog
- 5 Deployed MERN e-commerce app

## ■ How You'll Be Assessed

1

### Module Assessments

Practical and theory checks at the end of each module.

2

### Project Reviews

Trainer review of your mini projects and final project.

3

### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where MERN Stack Developer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### MERN Stack Developer

Builds full stack JavaScript apps.

2

#### React Developer

Builds modern frontends.

3

#### Node.js Developer

Builds backends and APIs.

4

#### Next.js Developer

Builds SSR web apps.

5

#### Full Stack Developer

Owns features across the stack.

6

#### Frontend Engineer

Specialises in UI performance and UX.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior MERN Developer

Build features across frontend and backend.

₹3 – 5.5 LPA

STAGE

02

2-5 YRS

#### Full Stack Developer

Own features and APIs.

₹5.5 – 11 LPA

STAGE

03

5-8 YRS

#### Senior Developer / Tech Lead

Architect apps and lead teams.

₹11 – 20 LPA

STAGE

04

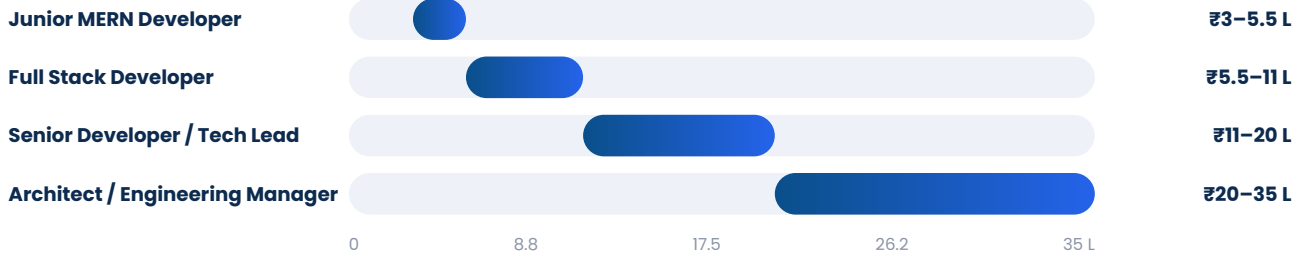
8+ YRS

#### Architect / Engineering Manager

Own platforms and teams.

₹20 – 35 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ System design
- ✓ Docker & cloud deployment
- ✓ GraphQL
- ✓ Testing (Jest, Cypress)
- ✓ AI features in web apps

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ AWS Certified Developer
- ✓ MongoDB Associate Developer
- ✓ Meta Front-End Developer

## ■ Upgrade Path at IPCS Global

1 Certified AI Professional

2 Cloud developer certification

## ■ Your First 12 Months After the Course

1

### Month 0–1 · Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 · First Role

Join as a Junior MERN Developer.

3

### Month 3–6 · Get Certified

Earn one certification from the list above.

4

### Month 6–12 · Specialise

Pick a specialisation and own a project, system or channel.

# MEAN Stack Developer

MongoDB, Express, Angular and Node.js — enterprise-grade full stack with TypeScript and SSR.

6 Months

480 Hours

9 Modules

4 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A complete full stack programme built on Angular, the framework favoured by many enterprises. You cover web fundamentals, MongoDB, Node.js and Express APIs, then 195 hours of Angular — TypeScript, reactive forms, RxJS, route guards, Angular Universal SSR and deployment.

**DURATION****6 Months****TRAINING HOURS****480 Hours****MODULES****9 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ BE / B.Tech / BSc / BCA / MCA students & graduates
- ✓ Developers targeting enterprise roles
- ✓ Career switchers

**Eligibility:** 12th pass or above with basic computer knowledge.

#### What You'll Be Able To Do

- ✓ Build REST APIs with Node & Express
- ✓ Model data in MongoDB
- ✓ Build Angular apps in TypeScript
- ✓ Use RxJS and reactive forms
- ✓ Deploy with SSR and CI/CD

## The Full Syllabus

9 modules, 480 hours.

|    |                                              |        |
|----|----------------------------------------------|--------|
| 01 | Introduction to Internet & Website Designing | 60 Hrs |
| 02 | Bootstrap & Version Control Systems          | 30 Hrs |
| 03 | SQL & NoSQL Databases – MongoDB              | 45 Hrs |
| 04 | Modern JavaScript & Introduction to Node.js  | 45 Hrs |
| 05 | REST API Creation using Express              | 65 Hrs |
| 06 | Angular Basics, Project Setup & TypeScript   | 65 Hrs |
| 07 | Advanced Concepts in Angular                 | 65 Hrs |
| 08 | Angular Deployment & SSR                     | 60 Hrs |
| 09 | MEAN Stack Project & Deployment              | 45 Hrs |

Total Training Duration

**480 Hours**

## Module-by-Module Topics

### MODULE 01

60 Hrs

#### Introduction to Internet & Website Designing

- HTML5 semantic markup & forms
- CSS3, Flexbox, Grid & responsive design
- JavaScript & ES6 fundamentals
- DOM manipulation & jQuery basics
- Web standards & best practices

### MODULE 02

30 Hrs

#### Bootstrap & Version Control Systems

- Bootstrap 5 grid & components
- Git fundamentals: commit, branch, merge
- GitHub repositories & pull requests
- Team collaboration workflows

### MODULE 03

45 Hrs

#### SQL & NoSQL Databases – MongoDB

- SQL vs NoSQL
- MongoDB basics
- Aggregation pipeline

### MODULE 04

45 Hrs

#### Modern JavaScript & Introduction to Node.js

- ES6 features
- Async JavaScript
- Node.js fundamentals

**MODULE 05**

65 Hrs

**REST API Creation using Express**

- Express framework
- CRUD APIs
- JWT authentication

**MODULE 06**

65 Hrs

**Angular Basics, Project Setup & TypeScript**

- TypeScript
- Components & modules
- Routing & navigation

**MODULE 07**

65 Hrs

**Advanced Concepts in Angular**

- Reactive forms
- RxJS & HTTP client
- Route guards
- State management

**MODULE 08**

60 Hrs

**Angular Deployment & SSR**

- Angular Universal
- Production deployment
- CI/CD basics

**MODULE 09**

45 Hrs

**MEAN Stack Project & Deployment**

- Build & deploy a MEAN app

**MEAN Stack Developer · Part A****Tools, Projects & Assessment****Tools & Technologies You'll Use**

VS Code

Node.js

Express

MongoDB

Angular

TypeScript

RxJS

Git &amp; GitHub

Postman

**Projects You'll Build****1 Express REST API****2 Angular admin dashboard****3 SSR-enabled Angular app****4 Deployed MEAN application**

## ■ How You'll Be Assessed

1

### Module Assessments

Practical and theory checks at the end of each module.

2

### Project Reviews

Trainer review of your mini projects and final project.

3

### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## PART B · CAREER GROWTH

### Where MEAN Stack Developer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

## ■ Roles You'll Be Ready For

1

### MEAN Stack Developer

Builds full stack apps with Angular.

2

### Angular Developer

Builds enterprise frontends.

3

### Node.js Developer

Builds APIs and services.

4

### Full Stack Developer

Owns features end-to-end.

5

### UI Engineer

Builds reusable component libraries.

6

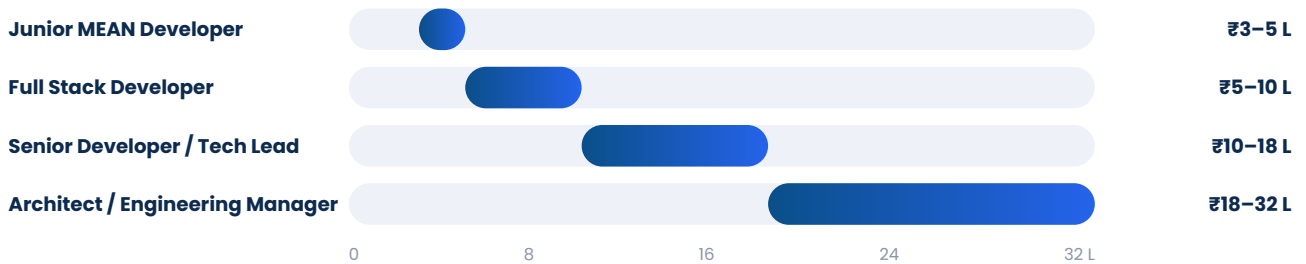
### Software Engineer

Develops enterprise applications.

## ■ Your Growth Ladder

|                               |                                                                     |                     |
|-------------------------------|---------------------------------------------------------------------|---------------------|
| STAGE<br><b>01</b><br>0-2 YRS | <b>Junior MEAN Developer</b><br>Build Angular and API features.     | <b>₹3 – 5 LPA</b>   |
| STAGE<br><b>02</b><br>2-5 YRS | <b>Full Stack Developer</b><br>Own modules end-to-end.              | <b>₹5 – 10 LPA</b>  |
| STAGE<br><b>03</b><br>5-8 YRS | <b>Senior Developer / Tech Lead</b><br>Lead architecture and teams. | <b>₹10 – 18 LPA</b> |
| STAGE<br><b>04</b><br>8+ YRS  | <b>Architect / Engineering Manager</b><br>Own enterprise platforms. | <b>₹18 – 32 LPA</b> |

### ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ NgRx state management
- ✓ Micro-frontends
- ✓ Cloud deployment
- ✓ Testing (Jasmine, Karma, Cypress)
- ✓ System design

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ MongoDB Associate Developer
- ✓ AWS Certified Developer
- ✓ Angular certification courses

## ■ Upgrade Path at IPCS Global

1

**Certified AI Professional**

2

**Cloud developer certification**

## ■ Your First 12 Months After the Course

1

### **Month 0–1 • Get Visible**

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### **Month 1–3 • First Role**

Join as a Junior MEAN Developer.

3

### **Month 3–6 • Get Certified**

Earn one certification from the list above.

4

### **Month 6–12 • Specialise**

Pick a specialisation and own a project, system or channel.

# Java Full Stack Developer

Core Java, web fundamentals and Spring MVC — the enterprise full stack.

3 Months

240 Hours

7 Modules

2 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 3-month programme covering core and advanced Java, HTML, CSS and JavaScript, and the Spring framework — dependency injection, validation, Spring MVC and customisation — to build enterprise web applications.

**DURATION****3 Months****TRAINING HOURS****240 Hours****MODULES****7 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ BE / B.Tech / MCA / BCA graduates
- ✓ Freshers targeting IT services companies
- ✓ Developers moving to Java

**Eligibility:** Degree or final-year student in engineering or computer applications.

#### What You'll Be Able To Do

- ✓ Write object-oriented Java
- ✓ Handle exceptions, files and threads
- ✓ Build web pages with HTML, CSS & JS
- ✓ Build web apps with Spring MVC

## The Full Syllabus

7 modules, 240 hours.

|    |                                          |        |
|----|------------------------------------------|--------|
| 01 | Java Fundamentals & Control Flow         | 30 Hrs |
| 02 | Object-Oriented Programming in Java      | 35 Hrs |
| 03 | Advanced Java                            | 40 Hrs |
| 04 | Web Fundamentals: HTML, CSS & JavaScript | 35 Hrs |
| 05 | Spring Overview & Core Techniques        | 35 Hrs |
| 06 | Spring Web MVC                           | 40 Hrs |
| 07 | Project                                  | 25 Hrs |

Total Training Duration

240 Hours

## Module-by-Module Topics

### MODULE 01

30 Hrs

#### Java Fundamentals & Control Flow

- Introduction to Java & JVM
- Building blocks & naming conventions
- Control flow statements
- Arrays & ArrayLists

### MODULE 02

35 Hrs

#### Object-Oriented Programming in Java

- Classes & objects
- Inheritance & polymorphism
- Abstraction & interfaces
- Packages

### MODULE 03

40 Hrs

#### Advanced Java

- Exception handling
- BufferedReader & BufferedWriter
- Multithreading
- Regular expressions

### MODULE 04

35 Hrs

#### Web Fundamentals: HTML, CSS & JavaScript

- HTML5 semantic markup & forms
- CSS3, Flexbox, Grid & responsive design
- JavaScript & ES6 fundamentals

#### MODULE 05

35 Hrs

### Spring Overview & Core Techniques

- Spring overview
- Core techniques
- Dependency injection
- Validation

#### MODULE 06

40 Hrs

### Spring Web MVC

- The web module
- Controllers & views
- Customising Spring MVC

#### MODULE 07

25 Hrs

### Project

- Spring web application

## Java Full Stack Developer · Part A

# Tools, Projects & Assessment

### Tools & Technologies You'll Use

JDK

IntelliJ IDEA / Eclipse

Spring Framework

Maven

MySQL

Git & GitHub

Tomcat

### Projects You'll Build

1

Console banking app

2

Spring MVC web application

### How You'll Be Assessed

1

#### Module Assessments

Practical and theory checks at the end of each module.

2

#### Project Reviews

Trainer review of your mini projects and final project.

3

#### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Java Full Stack Developer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### Java Developer

Builds applications in Java.

2

#### Java Full Stack Developer

Builds Spring backends and web frontends.

3

#### Backend Developer

Designs services and APIs.

4

#### Spring Developer

Builds enterprise Spring applications.

5

#### Software Engineer (IT Services)

Delivers client projects.

6

#### Application Support Engineer

Maintains production applications.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Trainee / Junior Java Developer

Build and test Java modules.

₹3 – 5.5 LPA

STAGE

02

2-5 YRS

#### Java Developer

Own services and features.

₹5.5 – 11 LPA

STAGE

03

5-8 YRS

#### Senior Developer / Tech Lead

Design systems and lead teams.

₹11 – 20 LPA

STAGE

04

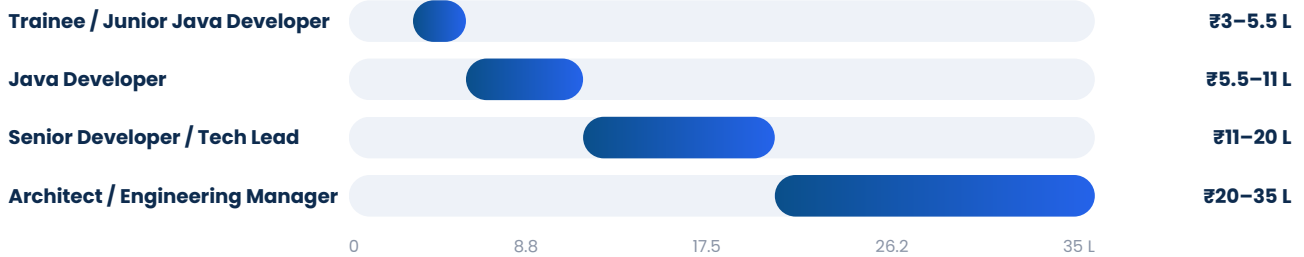
8+ YRS

#### Architect / Engineering Manager

Own enterprise architecture.

₹20 – 35 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Spring Boot & microservices
- ✓ Hibernate / JPA
- ✓ Docker & Kubernetes
- ✓ React or Angular frontend
- ✓ System design

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Oracle Certified Professional: Java SE Developer
- ✓ Spring Professional certification
- ✓ AWS Certified Developer

## ■ Upgrade Path at IPCS Global

1 Spring Boot & microservices

2 Oracle Java certification

## ■ Your First 12 Months After the Course

1

### Month 0–1 · Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 · First Role

Join as a Trainee / Junior Java Developer.

3

### Month 3–6 · Get Certified

Earn one certification from the list above.

4

### Month 6–12 · Specialise

Pick a specialisation and own a project, system or channel.

PROGRAMME 10 OF 15 · FAST-TRACK PROGRAMME

# Certified Java Programmer

Strong core Java — OOP, exceptions, I/O, arrays, threads and reflection.

2 Months

180 Hours

7 Modules

2 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 2-month course that builds rock-solid core Java skills, from basics and data types through classes, constructors and modifiers to OOP, exception handling, I/O streams, reflection, arrays and multithreading.

DURATION

**2 Months**

TRAINING HOURS

**180 Hours**

MODULES

**7 Structured Modules**

MODE

**Classroom / Online / Hybrid**

BATCHES

**Weekday · Weekend · Fast-track**

CERTIFICATION

**TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ Engineering & computer applications students
- ✓ Freshers preparing for IT interviews
- ✓ Beginners learning their first language

**Eligibility:** 12th pass or above; engineering or computer application students preferred.

#### What You'll Be Able To Do

- ✓ Write clean core Java
- ✓ Apply OOP principles
- ✓ Handle exceptions and I/O
- ✓ Use arrays and threads
- ✓ Clear Java technical interview rounds

## The Full Syllabus

7 modules, 180 hours.

|    |                                     |        |
|----|-------------------------------------|--------|
| 01 | Java Basics, Data Types & Variables | 25 Hrs |
| 02 | Classes, Objects & Packages         | 25 Hrs |
| 03 | Methods, Constructors & Modifiers   | 25 Hrs |
| 04 | OOP Concepts                        | 35 Hrs |
| 05 | I/O, Exceptions & Reflection        | 30 Hrs |
| 06 | Arrays & Multithreading             | 25 Hrs |
| 07 | Practice & Assessment               | 15 Hrs |

Total Training Duration

**180 Hours**

## Module-by-Module Topics

### MODULE 01

25 Hrs

#### Java Basics, Data Types & Variables

- Basics of Java
- Data types
- Variables, constants & literals

### MODULE 02

25 Hrs

#### Classes, Objects & Packages

- Class, object & types of classes
- Packages
- Inner classes

### MODULE 03

25 Hrs

#### Methods, Constructors & Modifiers

- Methods
- Constructors
- Access modifiers
- static, final, super & this

### MODULE 04

35 Hrs

#### OOP Concepts

- Encapsulation
- Inheritance
- Polymorphism
- Abstraction

### MODULE 05

30 Hrs

#### I/O, Exceptions & Reflection

- Input/output streams
- Exception handling
- Reflection

### MODULE 06

25 Hrs

#### Arrays & Multithreading

- Java arrays
- Threads & synchronisation

## MODULE 07

15 Hrs

### Practice & Assessment

- Coding exercises
- Mock interview questions

Certified Java Programmer · Part A

## Tools, Projects & Assessment

### Tools & Technologies You'll Use

JDK

Eclipse / IntelliJ IDEA

Git

### Projects You'll Build

1

Library management console app

2

Multithreaded file processor

### How You'll Be Assessed

1

#### Module Assessments

Practical and theory checks at the end of each module.

2

#### Project Reviews

Trainer review of your mini projects and final project.

3

#### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Certified Java Programmer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### Java Developer

Builds applications in Java.

2

#### Java Full Stack Developer

Builds Spring backends and web frontends.

3

#### Backend Developer

Designs services and APIs.

4

#### Spring Developer

Builds enterprise Spring applications.

5

#### Software Engineer (IT Services)

Delivers client projects.

6

#### Application Support Engineer

Maintains production applications.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Trainee / Junior Java Developer

Build and test Java modules.

₹3 – 5.5 LPA

STAGE

02

2-5 YRS

#### Java Developer

Own services and features.

₹5.5 – 11 LPA

STAGE

03

5-8 YRS

#### Senior Developer / Tech Lead

Design systems and lead teams.

₹11 – 20 LPA

STAGE

04

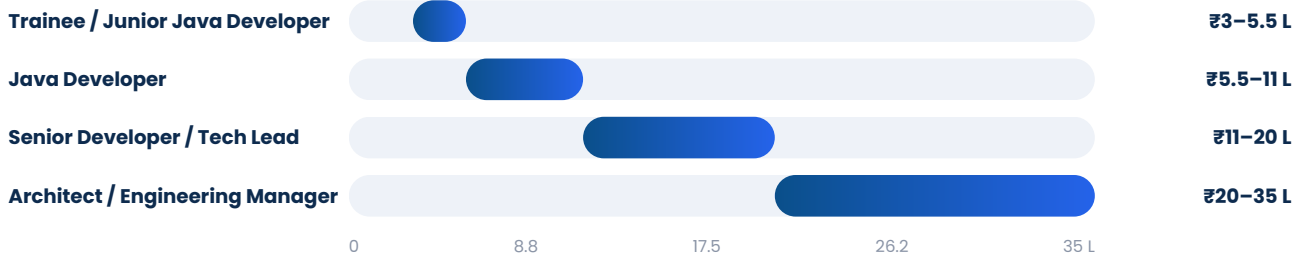
8+ YRS

#### Architect / Engineering Manager

Own enterprise architecture.

₹20 – 35 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Spring Boot & microservices
- ✓ Hibernate / JPA
- ✓ Docker & Kubernetes
- ✓ React or Angular frontend
- ✓ System design

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Oracle Certified Professional: Java SE Developer
- ✓ Spring Professional certification
- ✓ AWS Certified Developer

## ■ Upgrade Path at IPCS Global

1 **Java Full Stack Developer (3 months)**

2 **Advanced QA Automation Testing**

## ■ Your First 12 Months After the Course

1

### Month 0–1 • Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 • First Role

Join as a Trainee / Junior Java Developer.

3

### Month 3–6 • Get Certified

Earn one certification from the list above.

4

### Month 6–12 • Specialise

Pick a specialisation and own a project, system or channel.

# Full Stack PHP Developer

PHP, MySQL and Laravel — build dynamic, database-driven websites.

3 Months

240 Hours

10 Modules

2 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 3-month programme covering PHP from basics to Laravel — decisions, loops, functions, strings, arrays, files, sessions, regular expressions, forms and MySQL connectivity — to build dynamic web applications.

**DURATION****3 Months****TRAINING HOURS****240 Hours****MODULES****10 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ Students & fresh graduates
- ✓ Web designers going full stack
- ✓ Freelancers building client websites

**Eligibility:** 12th pass or above with basic computer knowledge.

#### What You'll Be Able To Do

- ✓ Write PHP applications
- ✓ Handle forms, sessions and files
- ✓ Connect PHP with MySQL
- ✓ Build Laravel applications

## The Full Syllabus

10 modules, 240 hours.

|    |                                  |        |
|----|----------------------------------|--------|
| 01 | Introduction to PHP              | 15 Hrs |
| 02 | Decisions, Loops & Functions     | 25 Hrs |
| 03 | Strings & Arrays                 | 25 Hrs |
| 04 | Files & Directories              | 15 Hrs |
| 05 | State Management                 | 15 Hrs |
| 06 | Regular Expressions              | 15 Hrs |
| 07 | HTML Forms with PHP              | 25 Hrs |
| 08 | Database Connectivity with MySQL | 35 Hrs |
| 09 | PHP with Laravel                 | 50 Hrs |
| 10 | Project                          | 20 Hrs |

Total Training Duration

**240 Hours**

## Module-by-Module Topics

### MODULE 01

15 Hrs

#### Introduction to PHP

- PHP setup & syntax
- Variables & data types

### MODULE 02

25 Hrs

#### Decisions, Loops & Functions

- Conditionals & loops
- User-defined functions

### MODULE 03

25 Hrs

#### Strings & Arrays

- String functions
- Indexed & associative arrays

### MODULE 04

15 Hrs

#### Files & Directories

- File handling

**MODULE 05**

15 Hrs

**State Management**

- Cookies & sessions

**MODULE 06**

15 Hrs

**Regular Expressions**

- Pattern matching

**MODULE 07**

25 Hrs

**HTML Forms with PHP**

- Form handling & validation

**MODULE 08**

35 Hrs

**Database Connectivity with MySQL**

- CRUD with MySQLi / PDO
- Security basics

**MODULE 09**

50 Hrs

**PHP with Laravel**

- MVC & routing
- Blade templates
- Eloquent ORM
- Authentication

**MODULE 10**

20 Hrs

**Project**

- Laravel web application

**Full Stack PHP Developer · Part A****Tools, Projects & Assessment****Tools & Technologies You'll Use**

PHP

XAMPP

MySQL

Laravel

Composer

VS Code

Git

**Projects You'll Build**

1

**Contact & feedback system**

2

**Laravel CRUD application****How You'll Be Assessed**

1

**Module Assessments**

Practical and theory checks at the end of each module.

2

**Project Reviews**

Trainer review of your mini projects and final project.

3

**Certification**

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Full Stack PHP Developer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### PHP Developer

Builds dynamic websites and apps.

2

#### Laravel Developer

Builds applications on Laravel.

3

#### WordPress Developer

Builds and customises WordPress sites.

4

#### Backend Web Developer

Builds APIs and databases.

5

#### Full Stack Web Developer

Owns sites end-to-end.

6

#### Freelance Web Developer

Builds sites for clients.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior PHP Developer

Build pages and features.

₹2.4 – 4 LPA

STAGE

02

2-5 YRS

#### PHP / Laravel Developer

Own projects and APIs.

₹4 – 7 LPA

STAGE

03

5-8 YRS

#### Senior Developer / Team Lead

Lead projects and teams.

₹7 – 12 LPA

STAGE

04

8+ YRS

#### Technical Manager / Agency Lead

Run delivery or an agency.

₹12 – 20 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Vue.js or React
- ✓ REST APIs & Laravel advanced
- ✓ WordPress plugin development
- ✓ Cloud hosting
- ✓ Testing

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Zend / PHP certifications
- ✓ Laravel certification
- ✓ AWS Cloud Practitioner

## ■ Upgrade Path at IPCS Global

1 MERN Stack Developer

2 Advanced Python Full Stack Developer

## ■ Your First 12 Months After the Course

1

### Month 0-1 · Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1-3 · First Role

Join as a Junior PHP Developer.

3

### Month 3-6 · Get Certified

Earn one certification from the list above.

4

### Month 6-12 · Specialise

Pick a specialisation and own a project, system or channel.

PROGRAMME 12 OF 15 · SHORT COURSE

# Certified Power BI Developer

Power Query, M, data modelling, DAX and dashboards — become a Power BI developer in one month.

1 Month

90 Hours

12 Modules

2 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A one-month course covering Power BI from data preparation in Power Query and M to data modelling, DAX, visualisation, Power BI Service and dashboard creation.

DURATION

**1 Month**

TRAINING HOURS

**90 Hours**

MODULES

**12 Structured Modules**

MODE

**Classroom / Online / Hybrid**

BATCHES

**Weekday · Weekend · Fast-track**

CERTIFICATION

**TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ Excel users & MIS executives
- ✓ Analysts & finance professionals
- ✓ Graduates entering analytics

**Eligibility:** Any degree. Basic Excel knowledge helpful.

#### What You'll Be Able To Do

- ✓ Clean data in Power Query
- ✓ Build star-schema data models
- ✓ Write DAX measures
- ✓ Publish and share dashboards

## The Full Syllabus

12 modules, 90 hours.

|    |                               |        |
|----|-------------------------------|--------|
| 01 | Introduction to Power BI      | 6 Hrs  |
| 02 | Power Query                   | 8 Hrs  |
| 03 | M Language                    | 8 Hrs  |
| 04 | Data Modelling                | 6 Hrs  |
| 05 | DAX Fundamentals              | 6 Hrs  |
| 06 | DAX Function Types            | 10 Hrs |
| 07 | Report View User Interface    | 4 Hrs  |
| 08 | Grouping & Binning Techniques | 8 Hrs  |
| 09 | Visualization                 | 12 Hrs |
| 10 | Power BI Service              | 8 Hrs  |
| 11 | Creating Dashboards           | 5 Hrs  |
| 12 | Mini Project & Review         | 9 Hrs  |

Total Training Duration

**90 Hours**

## Module-by-Module Topics

### MODULE 01

6 Hrs

#### Introduction to Power BI

- Power BI ecosystem

### MODULE 02

8 Hrs

#### Power Query

- Data import & transformation

### MODULE 03

8 Hrs

#### M Language

- M functions & custom columns

### MODULE 04

6 Hrs

#### Data Modelling

- Relationships & star schema

**MODULE 05**

6 Hrs

**DAX Fundamentals**

- Calculated columns vs measures

**MODULE 06**

10 Hrs

**DAX Function Types**

- Text, logical, math & statistical, filter functions

**MODULE 07**

4 Hrs

**Report View User Interface**

- Report canvas & panes

**MODULE 08**

8 Hrs

**Grouping & Binning Techniques**

- Groups, bins & hierarchies

**MODULE 09**

12 Hrs

**Visualization**

- Charts, maps, slicers & custom visuals

**MODULE 10**

8 Hrs

**Power BI Service**

- Publishing, workspaces & refresh

**MODULE 11**

5 Hrs

**Creating Dashboards**

- Dashboard design

**MODULE 12**

9 Hrs

**Mini Project & Review**

- End-to-end dashboard project

**Certified Power BI Developer · Part A****Tools, Projects & Assessment****Tools & Technologies You'll Use**

Power BI Desktop

Power BI Service

Power Query

DAX

Excel

**Projects You'll Build****1** Sales & profitability dashboard**2** HR analytics report**How You'll Be Assessed****1****Module Assessments**

Practical and theory checks at the end of each module.

**2****Project Reviews**

Trainer review of your mini projects and final project.

**3****Certification**

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Certified Power BI Developer Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### ■ Roles You'll Be Ready For

1

#### **Power BI Developer**

Builds data models and dashboards.

2

#### **BI Analyst**

Delivers business intelligence reports.

3

#### **MIS Executive**

Automates recurring reports.

4

#### **Reporting Analyst**

Maintains KPI reporting.

5

#### **Data Visualisation Specialist**

Designs clear, insightful visuals.

6

#### **Freelance Dashboard Developer**

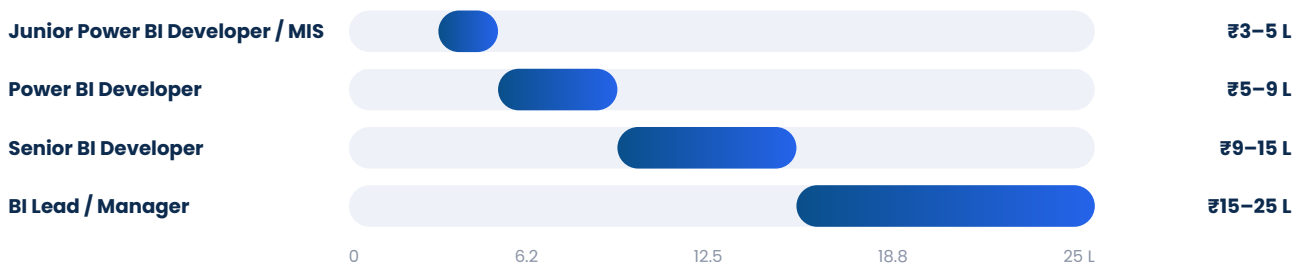
Builds dashboards for clients.

**Good to know:** Certified Power BI Developer is a focused short course and a strong starting point for these roles; most learners reach them fastest by continuing with **Business Analytics Certification**.

## ■ Your Growth Ladder

|                               |                                                                         |              |
|-------------------------------|-------------------------------------------------------------------------|--------------|
| STAGE<br><b>01</b><br>0–2 YRS | <b>Junior Power BI Developer / MIS</b><br>Build reports and dashboards. | ₹3 – 5 LPA   |
| STAGE<br><b>02</b><br>2–5 YRS | <b>Power BI Developer</b><br>Own data models and BI solutions.          | ₹5 – 9 LPA   |
| STAGE<br><b>03</b><br>5–8 YRS | <b>Senior BI Developer</b><br>Lead BI architecture.                     | ₹9 – 15 LPA  |
| STAGE<br><b>04</b><br>8+ YRS  | <b>BI Lead / Manager</b><br>Run BI teams and strategy.                  | ₹15 – 25 LPA |

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Advanced DAX
- ✓ SQL
- ✓ Microsoft Fabric
- ✓ Python for analytics
- ✓ Data warehousing

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Microsoft PL-300 Power BI Data Analyst
- ✓ Microsoft Fabric Analytics Engineer (DP-600)
- ✓ Excel expert (MO-201)

## ■ Upgrade Path at IPCS Global

1 Business Analytics Certification

2 Microsoft PL-300 certification

## ■ Your First 12 Months After the Course

1

### Month 0–1 • Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 • First Role

Join as a Junior Power BI Developer / MIS.

3

### Month 3–6 • Get Certified

Earn one certification from the list above.

4

### Month 6–12 • Specialise

Pick a specialisation and own a project, system or channel.

# Business Analytics Certification

Excel, Python & R visualisation and Power BI for data-driven business decisions.

2 Months

180 Hours

4 Modules

3 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 2-month certification that combines Excel for business analytics, Python and R for visualisation, and Power BI from basics to advanced, finished with a 45-hour capstone project.

**DURATION****2 Months****TRAINING HOURS****180 Hours****MODULES****4 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ Commerce, BBA & MBA students
- ✓ Working professionals in sales, finance or operations
- ✓ Graduates entering analytics

**Eligibility:** Any degree.

#### What You'll Be Able To Do

- ✓ Analyse business data in Excel
- ✓ Visualise data with Python and R
- ✓ Build Power BI dashboards
- ✓ Present insights to decision-makers

## The Full Syllabus

4 modules, 180 hours.

|    |                                               |        |
|----|-----------------------------------------------|--------|
| 01 | Microsoft Excel for Data & Business Analytics | 45 Hrs |
| 02 | Python & R Programming for Visualization      | 30 Hrs |
| 03 | Power BI – Basics to Advanced                 | 60 Hrs |
| 04 | Capstone Project                              | 45 Hrs |

Total Training Duration

180 Hours

## Module-by-Module Topics

### MODULE 01

45 Hrs

#### Microsoft Excel for Data & Business Analytics

- Formulas & lookups
- Pivot tables & Power Query
- Dashboards & what-if analysis

### MODULE 02

30 Hrs

#### Python & R Programming for Visualization

- Python: Pandas & Matplotlib
- R: ggplot2
- Choosing the right chart

### MODULE 03

60 Hrs

#### Power BI – Basics to Advanced

- Power Query & modelling
- DAX
- Dashboards & Power BI Service

### MODULE 04

45 Hrs

#### Capstone Project

- Business case analysis
- Dashboard & report
- Presentation

## Tools, Projects & Assessment

### Tools & Technologies You'll Use

Microsoft Excel

Python

R / RStudio

Power BI

## ■ Projects You'll Build

1

**Excel sales dashboard**

2

**Power BI management dashboard**

3

**Capstone business case**

## ■ How You'll Be Assessed

1

### **Module Assessments**

Practical and theory checks at the end of each module.

2

### **Project Reviews**

Trainer review of your mini projects and final project.

3

### **Certification**

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## PART B · CAREER GROWTH

### **Where Business Analytics Certification Can Take You**

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

## ■ Roles You'll Be Ready For

1

### **Business Analyst**

Translates business needs into insights.

2

### **Business Intelligence Analyst**

Builds dashboards for leadership.

3

### **MIS Analyst**

Manages reporting and data.

4

### **Sales / Finance Analyst**

Analyses revenue and costs.

5

### **Operations Analyst**

Improves processes with data.

6

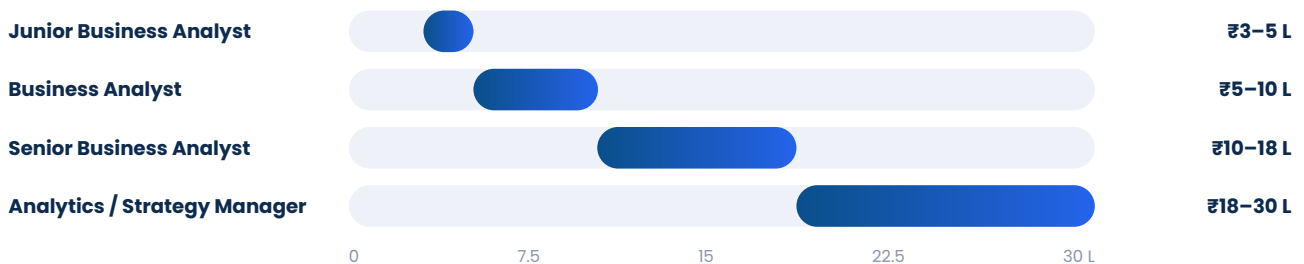
### **Junior Consultant**

Supports consulting projects.

## ■ Your Growth Ladder

|                               |                                                                     |              |
|-------------------------------|---------------------------------------------------------------------|--------------|
| STAGE<br><b>01</b><br>0–2 YRS | <b>Junior Business Analyst</b><br>Analyse data and prepare reports. | ₹3 – 5 LPA   |
| STAGE<br><b>02</b><br>2–5 YRS | <b>Business Analyst</b><br>Own analyses and stakeholder requests.   | ₹5 – 10 LPA  |
| STAGE<br><b>03</b><br>5–8 YRS | <b>Senior Business Analyst</b><br>Lead analytics and requirements.  | ₹10 – 18 LPA |
| STAGE<br><b>04</b><br>8+ YRS  | <b>Analytics / Strategy Manager</b><br>Drive data-led strategy.     | ₹18 – 30 LPA |

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ SQL
- ✓ Advanced Power BI
- ✓ Statistics
- ✓ Requirements gathering
- ✓ Presentation & storytelling

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ Microsoft PL-300
- ✓ IIBA ECBA
- ✓ Google Data Analytics

## ■ Upgrade Path at IPCS Global

1 Professional Data Analytics (6 months)

2 Microsoft PL-300 certification

## ■ Your First 12 Months After the Course

1

### Month 0–1 • Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 • First Role

Join as a Junior Business Analyst.

3

### Month 3–6 • Get Certified

Earn one certification from the list above.

4

### Month 6–12 • Specialise

Pick a specialisation and own a project, system or channel.

# Advanced QA Automation Testing

Manual testing, Selenium automation, API, performance and security testing, CI/CD and JIRA.

4 Months

360 Hours

12 Modules

4 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 4-month programme to become an automation test engineer. After a manual testing refresher, you build automation frameworks, test APIs, performance and security, manage defects, integrate tests into CI/CD pipelines and run sprints in JIRA — with real-world projects.

**DURATION****4 Months****TRAINING HOURS****360 Hours****MODULES****12 Structured Modules****MODE****Classroom / Online / Hybrid****BATCHES****Weekday · Weekend · Fast-track****CERTIFICATION****TÜV SÜD + IPCS Global**

### Who Should Join

- ✓ BE / B.Tech / BSc / BCA / MCA graduates
- ✓ Manual testers moving to automation
- ✓ Freshers targeting QA roles

**Eligibility:** Degree in engineering, science or computer applications.

### What You'll Be Able To Do

- ✓ Design test cases and plans
- ✓ Build Selenium automation frameworks
- ✓ Test REST APIs with Postman & RestAssured
- ✓ Run performance tests with JMeter
- ✓ Integrate tests into CI/CD
- ✓ Work in Agile sprints with JIRA

# The Full Syllabus

12 modules, 360 hours.

|    |                                        |        |
|----|----------------------------------------|--------|
| 01 | Introduction to Advanced QA Automation | 15 Hrs |
| 02 | Manual Testing Refresher               | 25 Hrs |
| 03 | Test Automation Tools                  | 90 Hrs |
| 04 | Advanced Automation Techniques         | 40 Hrs |
| 05 | Web Services & API Testing             | 35 Hrs |
| 06 | Performance Testing                    | 25 Hrs |
| 07 | Security Testing                       | 20 Hrs |
| 08 | Test Management & Defect Tracking      | 25 Hrs |
| 09 | Advanced CI/CD & DevOps for Testing    | 30 Hrs |
| 10 | JIRA Sprint Management                 | 15 Hrs |
| 11 | Career Development & Soft Skills       | 10 Hrs |
| 12 | Real-World Projects                    | 30 Hrs |

|                         |           |
|-------------------------|-----------|
| Total Training Duration | 360 Hours |
|-------------------------|-----------|

## Module-by-Module Topics

|                                                                                                                  |                                                                                                                                 |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <div>MODULE 01</div> <div>Introduction to Advanced QA Automation</div> <div>• QA roles &amp; testing types</div> | <div>MODULE 02</div> <div>Manual Testing Refresher</div> <div>• SDLC &amp; STLC</div> <div>• Test cases &amp; bug reports</div> |
|------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

**MODULE 03**

90 Hrs

**Test Automation Tools**

- Java / Python for testers
- Selenium WebDriver
- TestNG / PyTest
- Page Object Model

**MODULE 04**

40 Hrs

**Advanced Automation Techniques**

- Data-driven & hybrid frameworks
- BDD with Cucumber
- Parallel & cross-browser testing

**MODULE 05**

35 Hrs

**Web Services & API Testing**

- Postman
- RestAssured
- API automation

**MODULE 06**

25 Hrs

**Performance Testing**

- JMeter load & stress testing

**MODULE 07**

20 Hrs

**Security Testing**

- OWASP Top 10 basics
- Security testing tools

**MODULE 08**

25 Hrs

**Test Management & Defect Tracking**

- Test management tools
- Defect lifecycle

**MODULE 09**

30 Hrs

**Advanced CI/CD & DevOps for Testing**

- Jenkins pipelines
- Git & GitHub Actions
- Docker basics

**MODULE 10**

15 Hrs

**JIRA Sprint Management**

- Scrum, sprints & tickets

**MODULE 11**

10 Hrs

**Career Development & Soft Skills**

- Resume & interview prep

**MODULE 12**

30 Hrs

**Real-World Projects**

- End-to-end automation project

**Advanced QA Automation Testing · Part A****Tools, Projects & Assessment****● Tools & Technologies You'll Use**

Selenium WebDriver

TestNG / PyTest

Cucumber

Postman

RestAssured

JMeter

Jenkins

Git &amp; GitHub

JIRA

Docker

## ■ Projects You'll Build

1 Selenium framework for an e-commerce site

2 API test suite

3 JMeter load test

4 CI/CD pipeline with automated tests

## ■ How You'll Be Assessed

1

### Module Assessments

Practical and theory checks at the end of each module.

2

### Project Reviews

Trainer review of your mini projects and final project.

3

### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Advanced QA Automation Testing Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### Roles You'll Be Ready For

1

#### QA Automation Engineer

Builds automated test frameworks.

2

#### SDET

Writes code to test code.

3

#### API Test Engineer

Tests and automates APIs.

4

#### Performance Test Engineer

Load-tests applications.

5

#### QA Engineer

Owns quality for product features.

6

#### Test Lead

Plans and leads testing.

### Your Growth Ladder

STAGE

01

0-2 YRS

#### Junior QA / Automation Tester

Write and run automated tests.

₹3 – 5.5 LPA

STAGE

02

2-5 YRS

#### QA Automation Engineer

Own frameworks and pipelines.

₹5.5 – 10 LPA

STAGE

03

5-8 YRS

#### Senior SDET / Test Lead

Lead test strategy.

₹10 – 18 LPA

STAGE

04

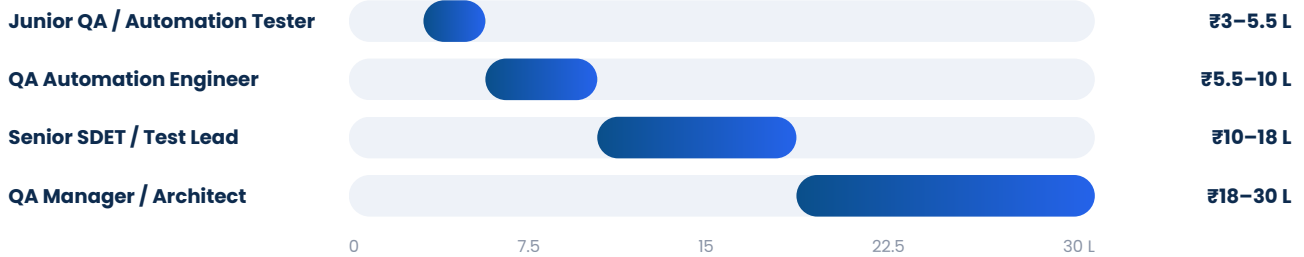
8+ YRS

#### QA Manager / Architect

Run quality engineering.

₹18 – 30 LPA

## ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Playwright & Cypress
- ✓ Mobile testing (Appium)
- ✓ Cloud testing
- ✓ Security testing
- ✓ AI-assisted testing

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ ISTQB Foundation (CTFL)
- ✓ ISTQB Advanced Test Automation Engineer
- ✓ Certified Selenium courses

## ■ Upgrade Path at IPCS Global

1 ISTQB Foundation / Advanced certification

2 SDET (developer in test) path

## ■ Your First 12 Months After the Course

1

### Month 0-1 · Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1-3 · First Role

Join as a Junior QA / Automation Tester.

3

### Month 3-6 · Get Certified

Earn one certification from the list above.

4

### Month 6-12 · Specialise

Pick a specialisation and own a project, system or channel.

PROGRAMME 15 OF 15 · ENTRY-LEVEL COURSE

# Software Testing (Basics)

Manual testing, basic programming and automation fundamentals – a fast entry into QA.

2 Months

180 Hours

7 Modules

2 Projects

Classroom / Online / Hybrid

## Part A · Course Details

### Program Overview

A 2-month course that introduces software testing and manual testing in depth, basic programming in Python or Java, automation testing and scripting fundamentals, and CI/CD concepts – with career development support.

DURATION

**2 Months**

TRAINING HOURS

**180 Hours**

MODULES

**7 Structured Modules**

MODE

**Classroom / Online / Hybrid**

BATCHES

**Weekday · Weekend · Fast-track**

CERTIFICATION

**TÜV SÜD + IPCS Global**

#### Who Should Join

- ✓ Any graduates entering IT
- ✓ Non-CS graduates wanting an IT job
- ✓ Career switchers

**Eligibility:** Any degree.

#### What You'll Be Able To Do

- ✓ Write test cases and bug reports
- ✓ Perform functional, regression and UAT testing
- ✓ Write basic automation scripts
- ✓ Understand CI/CD

## The Full Syllabus

7 modules, 180 hours.

|    |                                        |        |
|----|----------------------------------------|--------|
| 01 | Introduction to Software Testing       | 15 Hrs |
| 02 | Manual Testing                         | 45 Hrs |
| 03 | Basic Programming (Python / Java)      | 30 Hrs |
| 04 | Introduction to Automation Testing     | 30 Hrs |
| 05 | Automation Test Scripting              | 35 Hrs |
| 06 | Introduction to CI/CD                  | 15 Hrs |
| 07 | Career Development in Software Testing | 10 Hrs |

Total Training Duration

180 Hours

## Module-by-Module Topics

### MODULE 01

15 Hrs

#### Introduction to Software Testing

- SDLC, STLC & testing types

### MODULE 02

45 Hrs

#### Manual Testing

- Test scenarios & cases
- Defect lifecycle
- Functional & regression testing

### MODULE 03

30 Hrs

#### Basic Programming (Python / Java)

- Syntax & control flow
- Functions & OOP basics

### MODULE 04

30 Hrs

#### Introduction to Automation Testing

- Selenium basics
- Locators

### MODULE 05

35 Hrs

#### Automation Test Scripting

- Writing & running scripts
- Frameworks intro

### MODULE 06

15 Hrs

#### Introduction to CI/CD

- Jenkins & Git basics

## MODULE 07

10 Hrs

### Career Development in Software Testing

- Resume & interview prep

#### Software Testing (Basics) · Part A

## Tools, Projects & Assessment

### Tools & Technologies You'll Use

JIRA

Selenium

Python / Java

Git

Jenkins

### Projects You'll Build

1

Manual test suite for a web app

2

Basic Selenium automation

### How You'll Be Assessed

1

#### Module Assessments

Practical and theory checks at the end of each module.

2

#### Project Reviews

Trainer review of your mini projects and final project.

3

#### Certification

Issued on meeting assessment and attendance criteria.

**Certification:** TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

## Where Software Testing (Basics) Can Take You

Job roles, a realistic growth ladder with salary ranges, and the skills to keep growing.

### ■ Roles You'll Be Ready For

1

#### Manual Test Engineer

Designs and executes test cases.

2

#### QA Analyst

Ensures software meets requirements.

3

#### Junior Automation Tester

Writes basic automated scripts.

4

#### UAT Tester

Validates software with business users.

5

#### Test Support Engineer

Supports test environments.

6

#### Game / Mobile Tester

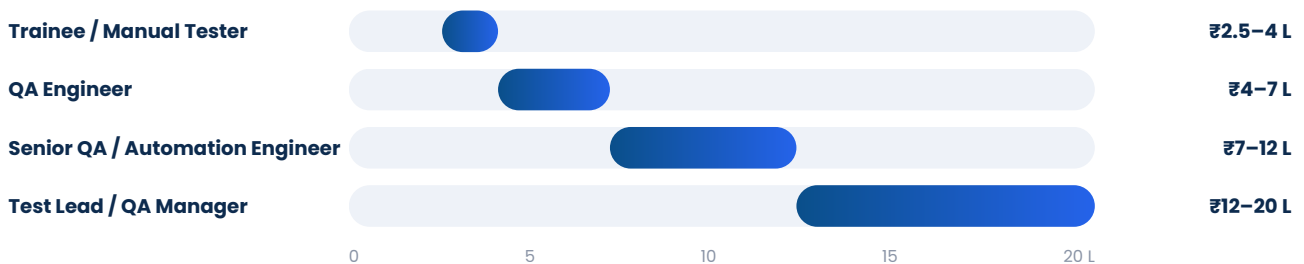
Tests apps and games.

**Good to know:** this course prepares you for entry-level roles. To move up faster, continue with **Advanced QA Automation Testing (4 months)**.

## ■ Your Growth Ladder

|                               |                                                                        |              |
|-------------------------------|------------------------------------------------------------------------|--------------|
| STAGE<br><b>01</b><br>0-2 YRS | <b>Trainee / Manual Tester</b><br>Execute test cases and log bugs.     | ₹2.5 – 4 LPA |
| STAGE<br><b>02</b><br>2-5 YRS | <b>QA Engineer</b><br>Own testing for features.                        | ₹4 – 7 LPA   |
| STAGE<br><b>03</b><br>5-8 YRS | <b>Senior QA / Automation Engineer</b><br>Lead testing and automation. | ₹7 – 12 LPA  |
| STAGE<br><b>04</b><br>8+ YRS  | <b>Test Lead / QA Manager</b><br>Run QA teams.                         | ₹12 – 20 LPA |

### ■ Annual Salary Range (CTC) — ₹ Lakh per annum



Indicative ranges for India in 2026. Lower end: Tier-2 cities such as Coimbatore and smaller firms; upper end: metros and larger companies. Guidance only, not a salary guarantee.

## ■ Skills to Add Next

- ✓ Selenium automation
- ✓ API testing
- ✓ SQL for testers
- ✓ Agile & JIRA
- ✓ Mobile testing

## ■ Certifications to Target

- ✓ TÜV SÜD certification
- ✓ ISTQB Foundation (CTFL)
- ✓ Agile tester certification
- ✓ Selenium certifications

## ■ Upgrade Path at IPCS Global

1 Advanced QA Automation Testing (4 months)

2 ISTQB Foundation certification

## ■ Your First 12 Months After the Course

1

### Month 0–1 · Get Visible

Polish your resume and portfolio; apply through the IPCS placement cell's drives.

2

### Month 1–3 · First Role

Join as a Trainee / Manual Tester.

3

### Month 3–6 · Get Certified

Earn one certification from the list above.

4

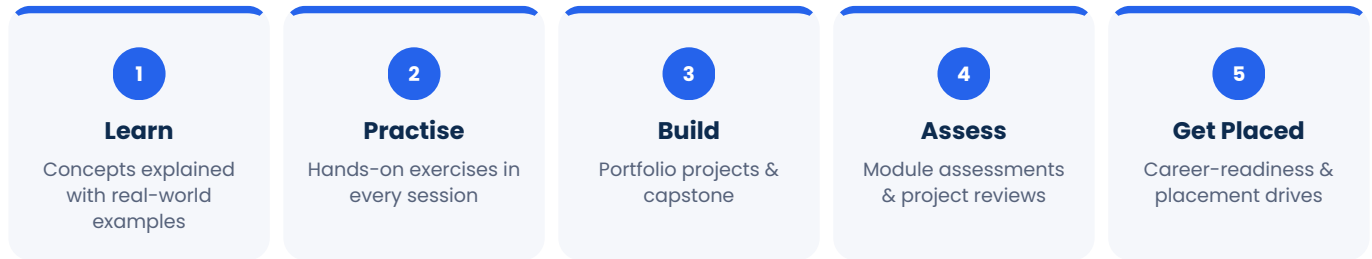
### Month 6–12 · Specialise

Pick a specialisation and own a project, system or channel.

# How We Train & Certify

Technical skill gets you noticed — presentation, confidence and communication get you hired. Career-readiness runs alongside the syllabus, not after it.

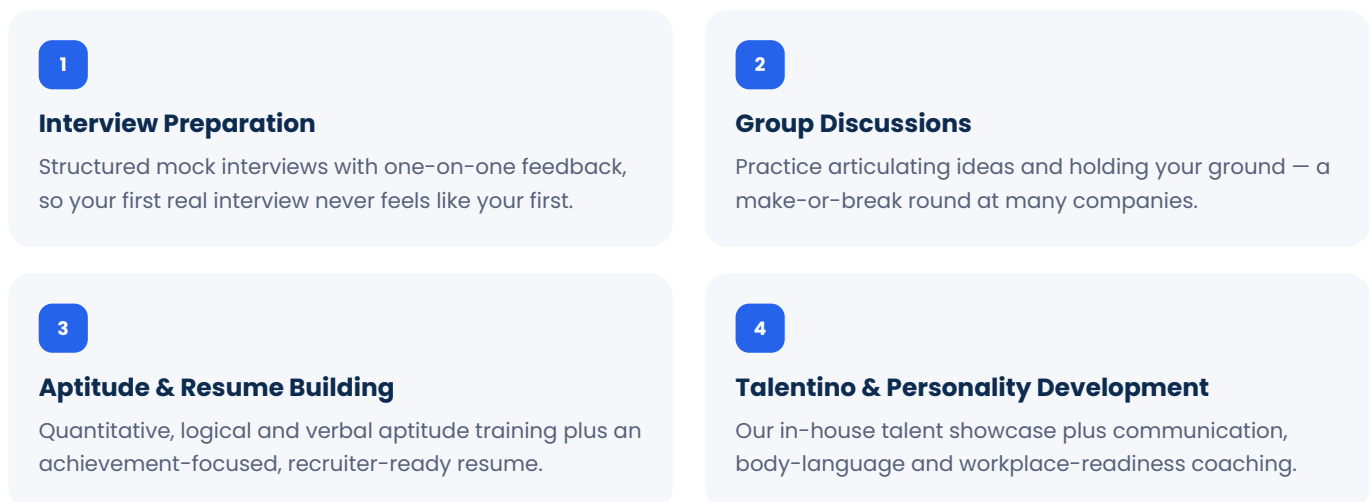
## Our Learning Method



## Your Certifications

- TÜV SÜD Certification**  
 IPCS Global is a cooperation partner of TÜV SÜD, the German testing and certification body. Eligible learners receive a TÜV SÜD certificate that adds independent, international credibility to their skills.
- IPCS Global Course Certificate**  
 IPCS Global is an ISO 9001:2015 certified institute and an NSDC approved training partner. Your certificate is issued on successful completion of assessments and projects.
- Internship Certification**  
 Documents your real-world projects and GitHub portfolio work — verifiable experience for your resume.

## Career-Readiness Track



# How IPCS Global Gets You Hired

Every learner goes through a structured career-readiness track alongside the course, supported by our dedicated placement cell.

1

## Dedicated Placement Cell

Interview drives, industry referrals and follow-up until you are placed – not just until the course ends.

2

## Resume & Portfolio

One-on-one sessions to build a recruiter-ready resume and a project portfolio that proves your skills.

3

## Aptitude & GD Training

Quantitative, logical and verbal aptitude plus group discussion practice.

4

## Mock Interviews

Simulated technical and HR panels so the first real interview never feels like the first.

## Recent IPCS Coimbatore Placements



A selection of recent placements across IPCS Global Coimbatore programmes.

**Global opportunity:** IT skills are the most globally portable: remote roles, freelance projects and overseas opportunities (GCC, Europe, US, Singapore) are all realistic with experience and a strong portfolio.

## Why IPCS Global



### 18+ Years of Training Excellence

A track record since 2008, refined across 15,000+ professionals trained.



### ISO 9001:2015 Certified

Audited, consistent training quality — every batch, every time.



### Recognised Partnerships

TÜV SÜD cooperation partner and NSDC approved training partner.



### Dedicated Placement Cell

Industry tie-ups, interview drives and follow-up until you are placed.



### Real Labs, Real Projects

Industry-grade equipment and live projects — proof of work, not just a certificate.



### 50+ Branches, One Standard

Across India and the GCC, with weekday, weekend and fast-track batches.

## Meet Our Coimbatore Team



Trainers, mentors, counsellors and placement coordinators at IPCS Global Coimbatore — working with every learner from the first class to final placement.

# Frequently Asked Questions

Quick answers to the questions learners and parents ask us most. For anything else, call or visit the Coimbatore branch.

---

## Q. Do I need prior experience to join?

Most programmes start from the fundamentals. Each programme lists its eligibility — our counsellors will confirm the right starting point for your background.

---

## Q. Are classes held online or in the classroom?

Classroom / Online / Hybrid. Talk to our counsellors about the best option for your programme.

---

## Q. What batch timings are available?

We run weekday, weekend and fast-track batches, so students and working professionals can both find a schedule that fits.

---

## Q. Is placement guaranteed?

We provide 100% placement assistance — resume building, aptitude and GD training, mock interviews and interview drives through our dedicated placement cell. Final selection depends on each learner's performance, attendance and interview results.

---

## Q. What certificate will I receive?

TÜV SÜD certification + IPCS Global course certificate + Internship Certification.

---

## Q. Can I attend a class before enrolling?

Yes. Book a free demo session to meet the trainers, see the labs and experience a live class before you decide.

---

## Q. What are the course fees?

Fees depend on the programme and batch type. Please contact the Coimbatore branch for the current fee structure and any available offers.

---

## Q. Can working professionals join?

Yes. Weekend and fast-track batches are designed for people who are working or studying alongside the course.

---

LET'S START THE CONVERSATION

# Your Career in IT, AI & Software Development Starts Here

Book a free demo class, meet the trainers and see the labs — our counsellors will help you pick the right programme and batch.

## Visit Us

**Address** #12, 2nd Floor, Swathi Towers,  
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GRG Matriculation School,  
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## Get In Touch

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**Web** [www.ipcsglobal.com](http://www.ipcsglobal.com)  
**Batches** Weekday · Weekend · Fast-track

## Book Your Free Demo Session Today

Walk in, call or write to us — meet the trainers, see the labs, and get counselling on the right course and batch before you enrol.

### How to Enrol

1

#### Contact Us

Call, WhatsApp or walk in to our Peelamedu centre.

2

#### Free Demo

Attend a live class and see the labs.

3

#### Choose a Batch

Weekday, weekend or fast-track.

4

#### Enrol & Start

Simple, guided enrolment.