Jaipur Engineers
Your One-Stop IT & Staffing Ecosystem

JAVA

Core Java / Java Programming

Java • OOP • Collections • Streams



COURSE FEE

₹6,500

JAIPUR, RAJASTHAN

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Core Java / Java Programming

Syllabus at a glance

01

Java foundations

02

Arrays, strings & packages

03

Object-oriented Java

04

Exceptions & collections

05

Files, lambdas & streams

06

Testing & debugging

PORTFOLIO PROJECT

Bank Account Simulator

Build a Java console application that records transactions and tests invalid operations.

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Core concepts

01

Java foundations

Use the JDK and JVM. Practise types, operators, conditions, loops and methods.

02

Arrays, strings & packages

Process collections of values and organise source files into packages.

03

Object-oriented Java

Use classes, constructors, access modifiers, interfaces, inheritance and polymorphism.

TOOLS & TOPICS

Java • OOP • Collections • Streams

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Applied skills

04

Exceptions & collections

Handle predictable failures and choose lists, sets or maps for different data needs.

05

Files, lambdas & streams

Persist records, then filter and summarise transactions.

06

Testing & debugging

Trace program behaviour, reproduce errors and test the core rules.

TOOLS & TOPICS

Java • OOP • Collections • Streams

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Portfolio project

Bank Account Simulator

Build a Java console application that records transactions and tests invalid operations.



Model the domain

Identify data, actions and boundaries before writing the first class.

Check a failure

Write a test for a rejected operation and confirm the data stays consistent.

A runnable Java project, test results and notes on design and error handling.

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Project checklist

Use these checks to prepare your project demo or portfolio handoff.

01

Model accounts

Create reusable account and transaction types and define how balances are calculated.

02

Test business rules

Reject invalid amounts and check the balance remains accurate after each operation.

03

Explain the implementation

Walk through the data model, a test case and how to run the application.

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Course fees

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Contact admissions for current batches, class timings and enrolment details.

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SCAN FOR MAP

View course details online

Core Java / Java Programming

Course content

MODULES 01–02

01 Java foundations

Lessons & practice

- JDK, JVM and compilation
- Primitive types and expressions
- Conditions, loops and methods

HANDS-ON Compile and run a menu with valid, invalid and exit inputs.

02 Arrays, strings & packages

Lessons & practice

- Arrays and strings
- StringBuilder
- Packages and access control

HANDS-ON Format a sample array of transaction descriptions.

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MODULES 03–04

03 Object-oriented Java

Lessons & practice

- Classes and constructors
- Encapsulation and interfaces
- Inheritance and polymorphism

HANDS-ON Make an account change its balance only through defined methods.

04 Exceptions & collections

Lessons & practice

- Exceptions and control flow
- Lists, sets and maps
- Basic generics

HANDS-ON Reject a duplicate transaction reference without changing the balance.

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MODULES 05–06

05 Files, lambdas & streams

Lessons & practice

- File input and output
- Lambda expressions
- Filtering and reducing with streams

HANDS-ON Read a transaction file and calculate deposit and withdrawal totals.

06 Testing & debugging

Lessons & practice

- Breakpoints and debugging
- Unit-test assertions
- Project structure

HANDS-ON Test a rejected withdrawal and check the balance and transaction count.