Jaipur Engineers
Your One-Stop IT & Staffing Ecosystem

JAVA

Java Multithreading

SAMPLE PROJECT

Concurrent Job Queue



COURSE FEE

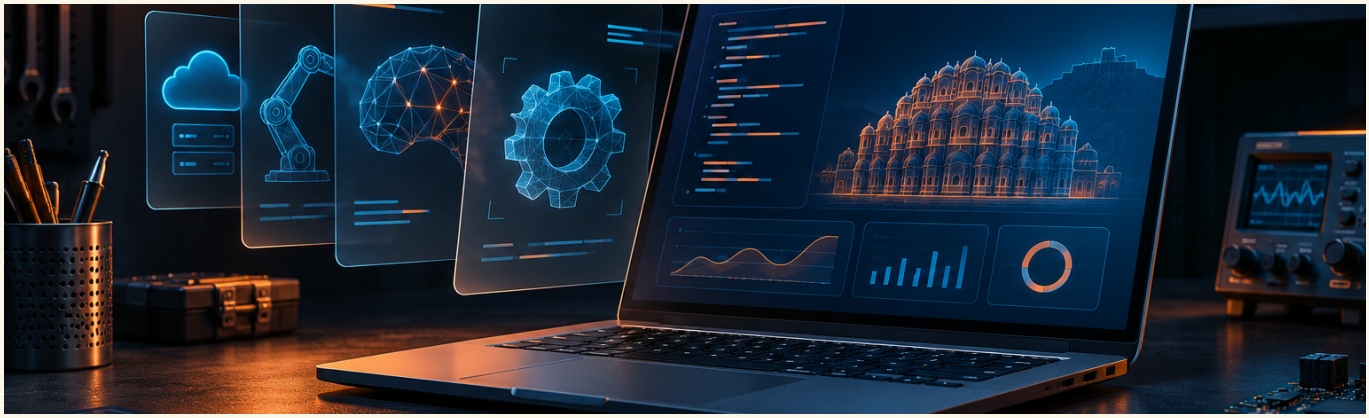
Fee on enquiry

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Java Multithreading

Core concepts



01 Threads, task lifecycles and interruption

02 Race conditions, synchronization and visibility

03 Locks, atomics and concurrent collections

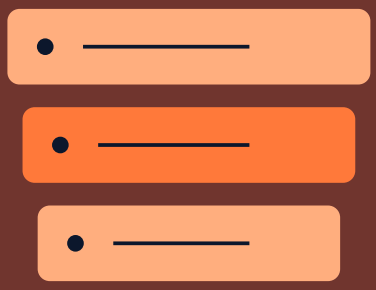
Model the domain

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

Java Multithreading

Applied skills

- **Model**
- **Execute**
- **Verify result**



04 Executors, Futures and CompletableFuture

05 Deadlock prevention, timeouts and cancellation

06 Reproducible tests and thread diagnostics

PROJECT DELIVERABLES

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

Java Multithreading

Portfolio project

Concurrent Job Queue

Process jobs with an executor, record results and test stopping and timeout behaviour.



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.

Java Multithreading

Course fees

COURSE FEE

Fee on enquiry

Ask admissions for the course fee, available batches and enrolment details.

ADMISSIONS

+91 70146 92039

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122/228, Indra Path, Thadi Market

Mansarovar, Jaipur, Rajasthan 302020

SCAN FOR MAP

Check course details

Java Multithreading

Course content

MODULES 01–02

01

Lessons & practice

- Threads
- Task lifecycles
- Interruption

HANDS-ON — Start and stop a worker safely and handle interruption during a test.

02

Lessons & practice

- Race conditions
- Synchronization
- Visibility

HANDS-ON — Reproduce an inconsistent counter and protect the shared update.

Java Multithreading

Course content

MODULES 03–04

03

Lessons & practice

- Locks
- Atomics
- Concurrent collections

HANDS-ON

Compare atomic counters and lock-protected collections for a shared task queue.

04

Lessons & practice

- Executors
- Futures
- CompletableFuture

HANDS-ON

Run independent jobs through an executor and combine their results.

Java Multithreading

Course content

MODULES 05–06

05

Lessons & practice

- Deadlock prevention
- Timeouts
- Cancellation

HANDS-ON

Add timeouts and cancellation and verify tasks stop without holding resources.

06

Lessons & practice

- Reproducible tests
- Thread diagnostics

HANDS-ON

Capture a thread dump from a practice run and explain how the tests reproduce the issue.