

Live Session: Multithreading and Data I/O(Total length: 2 hours)

Welcome to the live session on 'Java-Fundamentals'. The live session length will be 2 hours.

In this session,

the SME will be covering some of the basic concepts of Java.

This session will be mixed of Java and hands-on coding session and will be covering the following topics

in the agenda

- JDK, JRE, and JVM
- IDE setup with above embedded along with Git

Note for the SME:

- Code by sharing the screen and asking learners to code alongside. Throughout the session please do constantly follow up with the learner's progress and make sure everyone is following.
- Before running the code on a sample test case, ask the learners about their outputs. The code demos will be within IDE on a local machine.
- Please make sure to test run your codes/queries prior to the session to avoid any hick-up during the session.
- For each coding question practice using multiple approaches to help student reach to optimal solution through each approach.

Part 1:Data I/O(40 minutes)

- What is data I/O
- What are data input and output streams in java
- How to read data from console using input streams
- Reading and writing data from JSON file
- Reading and writing data from XML file

Break: 5 minutes

Part 2: Multithreading(1 hour 15 minutes)

- Threads vs processes
- Thread class with example
- Runnable interface with example
- Lifecycle of a thread
- Sleep ,Join, yield ,setPriority and ge Priority methods with examples
- Synchronisation
- Deadlocks with example