

CORE JAVA LANGUAGE (CODING SYLLABUS)

Course Overview

Core Java is the part of Java programming language that is used for creating or developing a general-purpose application. To develop general purpose applications. To develop online application and mobile application.

Duration: 45 Days

Job Prospects

The opportunities for Java career are abundant worldwide. There are different chances and an expansive degree in the wake of learning java. You can go for web improvement, you can go for Android, you can go for testing, you can go for mix level advancement.

Job Profiles

- Junior Developer
- Senior Developer
- Java Web Developer
- Java Android Developer
- Software Engineer
- Java EE developer
- Data Scientist

Course Content

Introduction to Java

- What is Language & History of Java
- Feature of Java

Java Fundamentals & Software's

- JAVA SE
- JDK
- JRE
- Set Path
- JVM

Structure of Java

- Documentation Section
- Import or Package Section
- Class Section
- main () method section
- Creating First Java Program

OOPS Implementations

- Features
- Class and Object
- Encapsulation
- Polymorphism
- Abstraction
- Inheritance

Object Oriented Programming

- Class and Object Declaration
- Methods & Types of Methods
- Passing Object as Method Argument

Constructors

- What is Constructor?
- Type of Constructor
- Constructor Overloading
- This keyword

Relationship Between Objects

- By Using Reference Inner Class Concept

Inheritance

- Single Inheritance
- Hierarchical Inheritance
- Multi-Level Inheritance

Polymorphism

- Method Overloading
- Method Overriding
- Super Keyword
- Final Keyword

Abstraction

- Abstract Class
- Abstract Method

Interfaces Lambda

- What is Interface?
- Declaration Multiple Inheritance

Basic Programs

- Basic Programs
- Operators & Types

Packages

- What is Package?
- Steps to implement Package
- Access Protection
- CLASSPATH

Nested Types

- If, ifelse, nested if, else if
- While, do-while, For
- Switch, Break, Continue

Arrays

- Array Definition
- Single Dimensional Array
- Multi-Dimensional Array

Command Line Arguments

Wrapper Classes

- Classes used as wrappers

Exception Handling

- Definition Types
- Build in Exception
- User Defined Exception

Working with String

- String Handling Methods
- String Buffer
- String Tokenizer

Swing (GUI)

- Window Panes
- JFrame, JLabel JText JField, JButton
- JCheckBox JRadioButton, JTable
- Adding Image to JFrame, etc.

Multithreading

- Thread Lifecycle
- Thread Class Runnable Interface
- Synchronization

I/O Streams

- File Class I/O Stream
- Hierarchy File Input Stream
- File Output Stream

Socket Programming

Reflection

Extended and Utility Concepts

Collection Framework

- Examples on Generics HashSet
- LinkedHashSet, Array List, Stack
- Linked List Vector, Hash Map, Queue
- Dequeue Arrays, Date, Calendar
- Date & Time API

Event Handling & Listeners

- Key Event, Mouse Event
- Listener Key Listeners, Mouse Listeners, Adaptor Listeners

System Properties and Internationalization(I18N)

Introduction to MYSQL (Project Based)

Database programming using JDBC

- Connection
- Statement
- ResultSet
- Prepared Statement