Core Java

Basic Programming Course

JAVA Training Course

About Course

The course is basically designed for developers, learners to familiarize with Java Development Kit using Java through Console Application. The training period allows the developer to understand different features of Java used for coding, debugging, tuning and deploying applications of Web

Syllabus Overview

Fundamentals of Object Oriented Programming

- ❖ Introduction
- ❖ Basic Concepts Of Object Oriented Programming
- ❖ Benefits of OOPS

Java Evolution

- ❖ Java History
- ❖ Java Features
- ❖ Difference from C and C++

Overview of Java Language

- ❖ Sample Java Program
- ❖ Application with Classes
- ❖ Java Program Structure
- ❖ Java Tokens
- ❖ Installing Java (JDK)
- ❖ Java Virtual Machine & Java Runtime Environment

Constants, Variables & Data Types

- ❖ Constant
- ❖ Variable
- ❖ Data Type
- ❖ Declaration of Variables
- ❖ Scope Variables
- ❖ Type Casting

Operators & Expressions

- ❖ Arithmetic Operators
- ❖ Relational Operators
- ❖ Logical Operators
- ❖ Assignments Operators
- ❖ Arithmetic Expression
- ❖ Evaluation of Expression
- ❖ Type conversion in expression

Decision Making & Branching

- ❖ If Statement
- ❖ If...else statement
- ❖ Nested if...else statement
- ❖ Switch statement
- ❖ The ? : operator

Decision Making & Looping

- ❖ While statement
- ❖ Do statement
- ❖ For statement
- ❖ Jump in loops
- ❖ Labelled Loops

Classes, Objects & Methods

- ❖ Defining Class
- ❖ Field Declaration
- ❖ Method Declaration
- ❖ Creating Objects
- ❖ Accessing class members
- ❖ Constructors
- ❖ Methods Overloading
- ❖ Static Members
- ❖ Nesting of Methods
- ❖ Inheritance: Extending a class
- ❖ Method Overriding
- ❖ Final Variable & Methods
- ❖ Final Classes
- ❖ Finalizer Methods
- ❖ Abstract methods and classes

Arrays and Strings

- ❖ One dimensional array
- ❖ Creating an array
- ❖ Two-dimensional array
- ❖ Strings
- ❖ Wrapper Classes

Interfaces

- ❖ Defining Interface
- ❖ Extending Interface
- ❖ Implementing Interface
- ❖ Accessing Interface Variables

Packages

- ❖ Java API Packages
- ❖ Using System Packages
- ❖ Naming Conventions
- ❖ Creating Packages
- ❖ Accessing a package
- ❖ Using a package
- ❖ Adding a class to a package
- ❖ Hiding classes

Multithreading Programming

- ❖ Creating Thread
- ❖ Extending Thread Class
- ❖ Stopping & Blocking Thread
- ❖ Life Cycle of a thread
- ❖ Thread methods
- ❖ Synchronizations
- ❖ Implementing runnable interface

Managing Errors & Exception

- ❖ Types of Errors
- ❖ Exceptions
- ❖ Syntax of Exception handling code
- ❖ Multiple catch statement
- ❖ Using Finally Statement
- ❖ Throwing own exception

Applet and Swing Introduction

- ❖ Introduction to Applet
- ❖ Applet Life Cycle
- ❖ Sample Applet Code