

ASPIRE TECHSOFT PVT. LTD.

ISO 9001: 2015 Certified Training Institute

Core JAVA

Duration: 60 hours

Object Oriented Programming (OOPS) concepts

Advantages of OOPS
OOPS concepts and terminology
Fundamentals of OOPS

Core Java Programming Introduction of Java

What is Java?
How to Get Java
A First Java Program
Compiling and Interpreting Applications
The JDK Directory Structure
Using Eclipse

Data types and Variables

Primitive Datatypes, Declaration s
Variable Names
Numeric Literals, Character Literals
String formatting and parsing,
String Literals,
Arrays, Non-Primitive Datatypes,
The Dot Operator

Methods

Methods
Calling Methods
Defining Methods
Method Parameters
Scope
Method Parameters
So, Why All the static?

Operators and Expressions

Expressions

Batches: Regular/ Weekend

Assignment Operator
Arithmetic Operators
Relational Operators
Logical Operators
Increment and Decrement Operators
Operate-Assign Operators (+, etc.)
The Conditional Operator
Operator Precedence
Implicit Type Conversions
The Cast Operator

Control Flow Statements

Conditional (if) Statements
Data types and Variables
Adding an else if
Conditional (switch) Statements
while and do-while Loops
for Loops
A for Loop Diagram
Enhanced for Loop
The continue Statement
The break Statement

Object-Oriented Programming

Introduction to Object-Oriented Programming
Classes and Objects
Fields and Methods
Encapsulation
Access Control
Inheritance
Polymorphism

Objects and Classes

Defining a Class Creating
an Object
Instance Data and Class Data
Methods Constructors
Access Modifiers
Encapsulation

Using Java Objects

Object class
Strings, StringBuilder and
StringBuffer Methods
Parameter Passing
Destroying Objects

Inheritance in Java

Inheritance
Method Overriding
Polymorphism
super

Packages

The import Statement
Creating packages
Static Imports
Packages Package Scope

Exception Handling

Exceptions Overview
Catching Exceptions
The finally Block
Exception Methods
Declaring Exceptions
Defining and Throwing Exceptions

Introduction to Threads

Non-Threaded
Applications Threaded
Applications Creating
Threads
Thread States
Runnable Threads
Thread Methods
Runnable Interface

Input/Output Streams

Overview of Streams
Bytes vs. Characters
Converting Byte Streams to Character
Streams
File Object
Binary Input and Output
PrintWriter Class
Reading and Writing Objects
Basic and Filtered Streams

Collection Framework

The Collections Framework
The Set Interface
Set Implementation Classes
The List Interface
List Implementation Classes

Interfaces and Abstract Classes

Separating Interface and Implementation
Defining Interfaces
Implementing and Extending
Interfaces
Abstract Classes

Applet

Life Cycle of an Applet
A "Hello, World" Applet