

## Java Programming

### Core Java:

Product Code: ST-SD-10012

Duration: 80 hrs

#### Prerequisite

- C Programming
- Knowledge of Object-oriented programming would be an advantage

#### Take Aways

- Apply OOAD concepts to build Java applications.
- Develop console based programs using Java.
- Develop GUI applications using Java.
- Develop database applications using Java.

#### Course Contents

- Object-oriented Concepts
- Introduction to Java
- Writing Java classes
- Language fundamentals
- Inheritance & Polymorphism
- Java API Support
- Exception Handling
- Collection Framework & Generics
- Annotations
- GUI with Java Swing controls
- Event Delegation Model
- Swing MVC
- Multithreading
- Synchronization
- Socket programming
- Applets
- Input-Output (File I/O)
- JDBC

## Recommended Next Course

- OCJP Preparation
- Java Web Component Developer
- Spring Framework
- SQL, PL/SQL

## Advanced Java:

Product Code: ST-SD-10023

Duration: 80 hrs

### Prerequisite

- Java Programming

### Take Aways

- Develop a web-based application using Servlets & JSPs.
- Process XML using Java APIs.
- Develop web applications using Struts 2.x framework.
- Skill to use a pre-built framework for rapid application development.
- Strong foundation for applying design patterns like MVC.

## Java Web Component Developer (WCD)

### Course Contents

- JDBC
- Advanced JDBC
- Introduction to J2EE Framework
- HTML
- Java Script
- XML basics
- JAXP- XML Parsing
- Servlet API
- Servlet Collaboration
- Session Management

- Servlet 3.0 features
- JSP elements & directive
- Custom tag libraries
- JSTL & EL

## Struts Framework

### Course Contents

- Introduction to Struts
- MVC design pattern
- AOP : DI & IC
- Struts Configuration
- Action and subclasses
- Action classes & UI
- Validator Framework
- Built-in Interceptors
- Custom Interceptors
- Struts Tag Libraries
- OGNL
- Using data tags

### Recommended Next Course

- Business Component Development
- Hibernate Framework
- Spring Framework
- Project Readiness Programme
- Android