Java Programming with Frameworks

(Duration : 84 Hrs)

Introduction

- Introduction to Java
- Features of Java
- History Of Java
- JDK,JRE,JVM
- Variables, Data types, Operators
- Control Statements- Conditional & Looping statements
- Strings, Arrays
- OOPS Concepts

HTML

- Introduction to HTML, XHTML, HTML5
- HTML Basics
- HTML Tags
- Attributes
- List , Table , Iframe
- Form , Form Inputs , Form Attributes
- Media – Audio & Video

Servlet

- Introduction to Servlet
- CGI v/s Servlet
- Servlet Life Cycle
- Initializing a servlet
- HttpServlet and Generic Servlet
- Getting Information from Request
- Constructing Responses
- ServletConfig & ServletContext
- Session Tracking Techniques
- Servlet with Annotations
- Servlet Database Connectivity
- Servlet CRUD operation

JSP

- Introduction to JSP
- Advantages of JSP over Servlet
- JSP Architecture/Life Cycle of JSP
- JSP scripting Tags, JSP Declaratives, JSP Scriptlets, JSP Expression Tags
- JSP implicit Objects

- JSP Directive Elements
- Exception
- JSP Action Tags
- JSP Database Connectivity
- MVC in JSP
- JSTL and Expression Language
- JSP CRUD

Hibernate Framework

- Introduction
- Advantage of Hibernate framework
- Hibernate Architecture
- Example to create Hibernate Application in IDE
- HB using Annotation
- Generate classes and Dialects
- Inheritance Mapping
- Hibernate Mapping
- One to Many and One to One Mapping
- Working with HQL
- Working with HCQL
- Named Query
- Hibernate CRUD operation

Spring Boot

- Introduction to Spring Framework
- Advantages of Spring Framework
- IOC Container
- Spring Application in IDE
- Dependency Injection
- Spring jdbc Template
- Spring MVC and CRUD
- Introduction to Spring Boot Framework
- Comparison between Spring, Spring MVC, Spring Boot
- Architecture of Spring Boot
- Spring Boot Starter
- Spring Boot Annotations
- Spring Boot Actuator
- Spring Boot DevTools
- Configure ,Create a Simple Web application
- Web Application with GET and POST Urls
- Spring Boot with Database:JDBC,H2
- Working with Spring Data Repository and Service
- Spring Boot CRUD with Hibernate using MVC

Application Development & Evaluation