



COVERAGE

- Introduction to Advanced Java
- HTML
- CSS
- JavaScript
- SQL
- JDBC
- Servlet
- JSP
- Web Application Security
- Report Generation
- Collection Framework
- MVC
- Basics of Spring
- Basics of Hibernate
- Basics of Web Service
- Project

SYLLABUS IN DETAILS

1. Introduction to Advanced Java

- Java Editions and Overview
- Need of Advanced Java
- Website and Webpage
- Web Terminologies
- Web Application Architecture
- Prerequisite of Core Java

2. HTML

- Introduction to HTML
- Tags and Attributes
- Adding Image
- Hyperlink
- Table
- Form
- List
- Scrolling Text and Image
- Playing Audio and Video
- Tooltip, datalist

3. CSS

- Introduction to CSS
- Advantages and Disadvantages of CSS
- Types of CSS
 - Inline CSS
 - Internal CSS
 - External CSS
- Different Types of Selector
 - Element Selector
 - Class Selector
 - Id Selector
- Creating Template using CSS

4. JavaScript

- Introduction to JavaScript
- Advantages of JavaScript
- Types of JavaScript
 - Internal JavaScript

5. SQL

- Introduction to SQL
- SQL Sublanguages (DDL, DML, DRL, TCL and DCL)
- Constraints
- Join and Sub Query
- Indexes, Views, Sequences and Synonyms
- Cursors
- Stored Procedures and Functions
- Triggers

6. JDBC

- Introduction to JDBC
- Types of Drivers
- Steps required to develop and Execute JDBC Application
- JDBC Statement Object
 - Statement
 - PreparedStatement
 - CallableStatement
- Result Set
 - Read Only ResultSet
 - Updatable ResultSet
 - Forward Only ResultSet
 - Scrollable ResultSet
- Database Metadata and ResultSet Metadata
- Batch Updation
- Transaction Management
- Adding and Retrieving BLOB and CLOB Objects

7. Servlet

- Introduction to Servlet
- Different ways to develop servlet program
- Develop and Access First Servlet Application in Tomcat Web Server
- Servlet Life Cycle
- Reading HTML Form Data in Servlet

- External JavaScript
 - Working with User defined and Built-in Function
 - Reading HTML Element in JavaScript
 - Form Validation
 - Servlet Chaining
 - Forward Model
 - Include Model
 - Cross Context and Cross Server Communication
 - Session Tracking Mechanisms
 - URL-Rewriting
 - Hidden Form Fields
 - Cookies
 - HttpSession
 - Filters
 - Listeners
 - Annotation
- 8. JSP**
 - Introduction to JSP
 - Advantages of JSP over Servlet
 - JSP Life Cycle
 - JSP Implicit Objects and Explicit Objects
 - JSP Directives
 - page
 - include
 - taglib
 - JSP Scripting Elements
 - Scriptlets
 - Declaration
 - Expression
 - JSP Chaining
 - Java Bean and JSP Communication
 - Develop Java Code less JSP using Action tag, EL, JSTL and Custom tag
- 9. Web Application Security**
 - Cross Site Scripting
 - Security Misconfiguration
 - SQL Injection
 - Salt Hashing

- File Uploading and File Downloading
- ServletConfig and ServletContext

10. Report Generation

- PDF File
- Excel File
- CSV File

11. MVC

- Introduction to MVC
- Different Types of Logic in Java based Web Application
- Advantages and Disadvantages of MVC Architecture
- MVC pattern Layer: Model, View and Controller
- Create Login and Registration Module in MVC

12. Basics of Spring

- Introduction to Spring
- Spring Modules
- Inversion of Control
- Dependency Injection
- Develop and Execute Spring Application in Eclipse IDE

13. Basics of Hibernate

- Introduction to Hibernate
- Understanding First Hibernate Application
- Develop and Execute Hibernate Application in Eclipse IDE

14. Basics of Web Service

- Introduction to Web Service
- Types of Web Service
 - SOAP Web Service
 - RESTful Web Service
- Develop and Execute SOAP and RESTful Web Service based Application

15. Project