Introduction to J2EE : 6 Hours

JDBC : 25 Hours (23.5 + 1.5 Buffer Hours)

Servlets : 46 Hours (44.5 + 1.5 Buffer Hours)

JSP : 12 Hours (10.25 + 1.75 Buffer Hours)

Grand Total : 89 Hours

No. of Hours / day : 2 Hours

No. of Classes for J2EE : 90/2 Hours = 45 Classes

No. of Weeks for J2EE : 45/5 Days = 9 Weeks

45/6 Days = 7.5 Weeks

**Introduction to J2EE….……………………………………….…6 Hrs**

# Introducing Myself…………………………………………………………….…2.0 Hrs

1. **Introduction to Web Applications………………………………………..2.0 Hrs**
2. **About J2EE & It’s API’s…..……………………………………………………..1.0 Hrs**
3. **J2EE 3-Tier Architecture.……………………………………………………..1.0 Hrs**

**JDBC…………………………………………………………………23.5 Hrs**

# Introduction…………………………………………………4.0 Hrs

* About JDBC……………………………………………....0.5 Hrs
* Advantages of JDBC…………………………………..0.5 Hrs
* JDBC Prerequisites……………………………………0.5 Hrs
* Installing MySQL DB Server………………………0.5 Hrs
* First JDBC Program………..…………………………2.0 Hrs

# Drivers………………………………………………………….3.0 Hrs

* Introduction……………………………………………..1.0 Hrs
* How to Load the Driver Class into Program1.0 Hrs
* About 2-Teir Architecture Applications……0.5 Hrs
* Driver Types..……………………………………………0.5 Hrs

# DB URL………………………………………………………….1.0 Hrs

# Connection Interface…………………………………….3.0 Hrs

* DriverManager Class…………………………………1.0 Hrs
* getConnection() method…………………………...1.0 Hrs
* Connection Object…………………………………….1.0 Hrs

# JDBC Statements……………………………………..…….8.5 Hrs

* Introduction……………………………….…………….1.0 Hrs
* Static & Dynamic SQL Queries…………………..0.5 Hrs
* Statement…..……………………………………………..1.0 Hrs
* executeQuery(), executeUpdate() & execute() Methods……………………………………………………1.0 Hrs
* PreparedStatement…………..………………………2.0 Hrs
* About Stored Procedures………………………….1.0 Hrs
* CallableStatement…………..………………………..1.0 Hrs
* Performance of PreparedStatement & CallableStatement…………..………………………..1.0 Hrs

# ResultSet………………………………………………………2.0 Hrs

# Transactions…………………………………………………3.0 Hrs

**Servlets……………………………………………………………44.5 Hrs**

# Introduction………………………………………...……….4.0 Hrs

* About Web Browser…………………………..……0.25 Hrs
* About Web Resources………………………….……1.0 Hrs
* About Web Application…………………………..…1.0 Hrs
* About Web Sever……………………………………...1.0 Hrs
* Installation of Tomcat Webserver………….…0.5 Hrs

# About Servlets………………………………………………2.0 Hrs

* Why Servlets…………………………………………….0.5 Hrs
* Creating the First Servlet…………………………1.5 Hrs
* WAR File…………………………………………………..0.5 Hrs

# Web URL……………………………………………………….7.0 Hrs

* About Web URL & Its Structure…………………1.0 Hrs
* Query String……………………………………………..0.5 Hrs
* HTTP & HTTPS Protocols………………………….0.5 Hrs
* Key Elements of HTTP Request &

HTTP Response…………………………………………..2 Hrs

* HTTP Methods…………………………………………..1.0 Hrs
* Difference between GET & POST…………..…..2.0 Hrs

# Servlet Container…………………………………………5.5 Hrs

* About Servlet Container& its advantages…1.0 Hrs
* Request & Response Objects…………………….1.0 Hrs
* getParameter() & getParameterValues()

Methods……………………………………………………1.0 Hrs

* About XML………………………………………………..0.5 Hrs
* About Deployment Descriptor (web.xml)….2.0 Hrs

# Servlet Hierarchy…………………………………………7.0 Hrs

* GenericServlet………………………………………….2.0 Hrs
* HttpServlet……………………………………………….2.0 Hrs
* Difference between GenericServlet

& HttpServlet…………………………………………..0.5 Hrs

* Servlet Lifecycle………………………………………2.5 Hrs
* SingleThreadModel Servlets……………………0.5 Hrs

# ServletContext & ServletConfig……………………2.0 Hrs

# Redirect, Forward & Include………………………...3.0 Hrs

# Attributes……………………………………………………2.0 Hrs

# Cookies………………………………………………………...3.0 Hrs

* Introduction……………………………………………..2.0 Hrs
* Persistent & Non-Persistent Cookies………..1.0 Hrs

# Session……………………………….………………….3.0 Hrs

* Introduction……………………………………………..1.0 Hrs
* Advantages of Session…………...………………….0.5 Hrs
* Steps to work with session…………….…………1.0 Hrs
* URL Rewriting…………………………………………..0.5 Hrs

# “StudentsApp” Web Application Development

# Exercise………………………………………………...7.0 Hrs

**JSP Table of Contents……………………………………10.25 Hrs**

# Introduction………………………………………………....2.0 Hrs

* About JSP…………………………………………….……1.5 Hrs
* Difference between Servlets & JSP……………0.5 Hrs

# JSP Lifecycle………………………………………………….3.0 Hrs

# JSP Objects……………………………………………………1.5 Hrs

* Objects Scope in JSP………………………………….0.5 Hrs
* Implicit Objects…………………………………………1.0 Hrs

# JSP Tags………………………………………………………3.0 Hrs

* Declaration Tag………………………………...……0.25 Hrs
* Expression Tag…………………………………….…0.25 Hrs
* Scriptlet Tag……………………………………………..0.5 Hrs
* Action Tag………………………………………………...1.0 Hrs

1. Forward Action
2. Include Action
3. UseBean Action

* Directive Tag……………………………………….……1.0 Hrs
  1. Include Directive
  2. TagLib Directive
  3. Page Directive

**5. Error Handling in JSP……………………………………..0.25 Hrs**

**6. Implementing the Single Thread Model in JSP.0.25 Hrs**

**7. Redirect in JSP……………………………………………….0.25 Hrs**