

# ADV. JAVA LANGUAGE (CODING SYLLABUS)

## Course Overview

Adv. Java is the part of Java programming language that is used for creating or developing a general-purpose application. To develop general purpose applications. To develop online application and mobile application.

**Duration:** 45 Days

## Job Prospects

The opportunities for Java career are abundant worldwide. There are different chances and an expansive degree in the wake of learning java. You can go for web improvement, you can go for Android, you can go for testing, you can go for mix level advancement.

## Job Profiles

- Junior Developer
- Senior Developer
- Java Web Developer
- Java Android Developer
- Software Engineer
- Java EE developer
- Data Scientist

## Course Content

### Introduction to Java

- What is Language & History of Java
- Feature of Java

### Basics of a Web application

- What is a web application?
- What is a web client and web server?
- How do client and server communicate?
- HTTP protocol basics
- HTML language basics
- What is a TCP/IP port, URL?
- Need for a Web Container

### Web Container and Web Application Project Set up

- To set up Tomcat Container on a machine
- To set up a Servlets JSP project in Eclipse
- To configure dependency of Servlet JSP APIs
- Web application project structure

### Servlets

- What are Servlets?
- What can they do? Why are they needed?
- How do Servlets look in code?
- HTTP Methods; GET, POST, PUT, DELETE, TRACE, OPTIONS
- GET/POST request; differences between the two
- Servlet Lifecycle
- Servlet Context and Servlet Config
- Forwarding and Redirection of requests

## Session Management

- What is a session?
- Why is it required?
- How to get a session?
- Session information passing between client and server
- Session information passing mechanisms - Cookies, Rewriting
- How to destroy a session

## JSPs

- Scriptlets
- Expressions
- Declarations
- Significance of above elements and fitment into the JSP Lifecycle
- What are Directives in JSP?
- Page Directive
- Include Directives
- Taglib Directive

## JSP Tag library

- JSP Standard Actions
- Expression Language
- JSTL basics and it's usage
- Need for Custom Tag Library
- Custom Tag Library implementation