

## :CORE JAVA SYLLABUS:

- Object Oriented Programming
- Introduction to Java
- Java Fundamentals & Architectures
- JDK Installation & Setting Environment
- Variable
- Demo of Java first Program
- Data Types, Variables and Operators
- Control Statements and Looping Structure
- Classes and Objects
- Exploring Methods and Inheritance
- Packages and Interface
- String, StringBuilder,
- StringTokenizer & Regular Expression
- Array and Vector
- Java Language Support and Utility
- Package
- Exception Handling
- Multi-Threading
- File Handling
- Applet
- AWT and Event Handling
- Networking
- Swing
- Introduction to RMI
- Introduction JDBC
- Introduction JavaBeans

## Advance JAVA

### Introduction to J2EE

- J2EE Overview
- Why J2EE?
- J2EE Architecture

### Module 1: JSP

#### 1. Introduction

- Web-Tech Intro
- http protocol
- Apache tomcat web server
- Introduction of JSP as Middleware Technology
- JSP Architecture  
Demo: execution of JSP program

#### 2. Client –Side Programming

- HTML
- CSS
- Java SCRIPT  
Demo in  
Deamweaver  
for designing part  
Demo on NetBean

### 3. Installation , features and programs

- Installation of jdk 1.6
- Apache-tomcat 6.2
- Netbean 7.0
- Setting Environmental variable.
- Installation of DreamWeaver
  
- Installation of Oracle 10g.  
Demos:

### 5. JSP Directive

- Page
- Include
- Taglib

### 7. JSP Implicit Object

- request
- response
- out
- session
- application
- pagecontext

### 9. JSP Session Handling

- Http Session
- JSP Cookie
- URL Rewriting

### 4. Components of JSP

- Form processing in JSP
- JSP Directive
- JSP Scripting
- JSP Implicit objects
- Standard Actions

### 6. JSP Scripting

- Scriptlet
- Declaration
- Expression

### 8. JSP Action Element

- <jsp:include>
- <jsp:forward>
- <jsp:plugin>
- <jsp:param>
- <jsp:useBean>
- <jsp:setAttribute>
- <jsp:getAttribute>

### 10. JSP Custom Tag

- Creating own custom Tag.
- JSTL(java Standard Tag Library)

## Module 2: JDBC

### Introduction of JDBC

- API
- Type of JDBC Driver
- Introduction of Oracle Database
- PL/SQL Command Intro

### JDBC - SQL Syntax:

- JDBC - Connections
- JDBC - Statements
- JDBC - Result Sets
- JDBC - Data Types
- JDBC - Transactions
- JDBC - Exceptions
- JDBC - Batch Processing
- JDBC - Stored Procedure
- JDBC - Streaming Data

### JDBC Programming:

- Connection Pooling
- JDBC Programming with ORACLE, MYSQL, SQL Server etc.

### JDBC Examples

- JDBC - Create Database
- JDBC - Select Database
- JDBC - Drop Database
- JDBC - Create Tables
- JDBC - Drop Tables
- JDBC - Insert Records
- JDBC - Select Records
- JDBC - Update Records
- JDBC - Delete Records
- JDBC - WHERE Clause
- JDBC - Like Clause
- JDBC - Sorting Data

## Module 3: Servlet

Introduction to servlet  
Servlet life cycle  
Developing and Deploying Servlets  
Exploring Deployment Descriptor (web.xml).  
Servlets - Examples  
Servlets - Form Data

Servlets - Client Request  
Servlets - Server Response  
Servlets - Http Codes  
Servlets - Writing Filters  
Servlets - Exceptions

Servlets - Cookies Handling  
Servlets - Session Tracking  
Servlets - Database Access  
Servlets - File Uploading  
Servlets - Handling Date  
Servlets - Page Redirect

Servlets - Hits Counter  
Servlets - Auto Refresh  
Servlets - Sending Email  
Servlets - Packaging  
Servlets - Debugging

## Module 4: EJB

- Introduction to Distributed Applications and Components
- Introduction to J2EE architecture.
- Enterprise Java Beans (EJB) - An Introduction
- Why Enterprise Java Beans (EJB)?
- Application Servers Available in the market.
- Downloading and Installing the WebLogic 6.0 server.
- Introduction to Enterprise Java Beans and developing you first web component.
- Developing Hello World Session Bean
- Writing Deployment Descriptor and Client Code for Stateless Session Bean

- Deploying Hello World Session Bean on WebLogic Server
- Writing Calculator Session Bean and Testing on WebLogic Server
- Understanding Stateful and Stateless Session Beans Life cycle
- Writing Stateless Session Bean
- Introduction to the Entity Beans
- Writing your first Entity Bean
- Writing Entity Bean with Container Managed Persistence
- Writing Entity Bean with Bean Managed Persistence
- Deploying Entity Bean

## Module 5: Apache Ant

- Introduction
- Environment Setup
- Build Files
- Property Task
- Property Files
- Data Types
- Building Projects
- Build Documentation
- Creating JAR files
- Creating WAR files
- Packaging Applications
- Deploying Applications
- Executing Java code
- Eclipse Integraton
- Junit Integration
- Extending Ant

## Module 6:J2EE Security

### LOG4J

- log4j - Overview
- log4j - Installation
- log4j - Architecture
- log4j - Configuration
- log4j - Sample Program
- log4j - Logging Methods
- log4j - Logging Levels
- log4j - Log Formatting
- log4j - Logging in Files

### JASS

shortcomings of code-based authentication  
Overview of JAAS  
Developing authentication and authorizations services  
Provides sample code that you can adapt for your own applications  
Working with JAAS

- log4j - Logging in Database

## Module 7:JSF

- Quick overview of JSF
- JSF life cycle
- Struts v/s JSF
- What is new JSF.
- Features in JSF
- JSF tag library
- JSF html tag library
- JSF core tag library
- JSF validations
- Database handling using JSF & MySql
- JSF internationalization example

## Module 8:Struts

- What is Struts?
- Struts Architecture
- Struts classes - Action Forward, Action Form, ActionServlet, Action classes
- Understanding struts-config.xml
- Understanding Action Mappings
- Struts flow with an example application
- Struts Tiles Framework.
- Struts Validation Framework
- Internationalizing Struts Application
- Struts with Message Resources

## Module 9:AJAX

- What is AJAX ?
- AJAX Technologies
- AJAX Examples
- Browser Support
- AJAX in Action
- AJAX XMLHttpRequest
- AJAX Database
- AJAX Security
- Issues with AJAX
- JSP & Ajax
- JSF & Ajax

## Module 10:WebServices

- What are Web Services?
- Why Web Services?
- WS Characteristics
- WS Architecture
- WS Components
- WS Examples
- WS Security
- WS Standards

## Module 11:JNDI

- JNDI Layered Architecture
- Naming and Directory Services
- LDAP
- Exploring JNDI Functionality
- Integrating RMI-IIOP & JNDI
- Working Examples

## Module 12:CORBA

- CORBA Introduction
- CORBA Architecture & Working

Working Examples

## Module 13

- Object Persistence.
- Hibernate Architecture .
- Persistent Classes.
- Working with Persistent Objects.
  
- Components.
- Associations.
- Other Associations.
- Value Type Collections.
- Inheritance.

- Transitive Persistence.
- Custom Mapping.
- HQL.
- Criteria.
- Transactions and Concurrency.
- Fetching Strategies.
- Cache.
- Annotations.

## Module 14: Project Deployment

