

JAVA Syllabus

PRE-REQUISITE

- C&C++ Programming,
- PL/SQL,
- Basics of Designing

MODULE 1 [Fundamentals]

- OOPS
- Software Engineering
- SQL Queries
- Basics of Designing
- Web Programming

MODULE 2 [Learning Core Java]

- Java Language Fundamentals
- Java Virtual Machine
- Java Run Time Environment
- Java Classes and OOPS implementation
- Attributes
- Methods
- Accessing Object Members
- Constructors and Destructors
- Package
- Data Type, Identifiers, Keywords
- Identifiers
- Variables, Declarations, and Assignments
- Java Reference Types
- Constructing and Initializing Objects
- Memory Allocation and Layout
- Executing the Constructor
- Assigning References
- Language Coding Conventions
- Expressions and Flow control
- Variables and Scope
- Variables Initialization
- Logical Operators
- Casting
- Switch Statements
- Looping Statements
- Break Statement

- Continue Statement
- Expressions and Flow Controls
- Array

- ❖ Class Design
- ❖ Overloading and Overriding
- ❖ I/O Stream
- ❖ Packages and Interfaces
- ❖ Exceptional Handling
- ❖ Java GUI
 - AWT
 - Layout
 - Swing Reference Class
 - Threading
- ❖ Garbage Collection
- ❖ JDBC API

MODULE 3 [Advanced Java (J2ee)]

- J2EE Architecture
- Java Servlet
- JSP
- JSTL and Custom Tag
- Developing Dynamic Forms
- Sharing Application Resources Using the Servlet Context

MODULE 4 [Database Programming]

- USING JDBC
- Database Connection
- MySQL

MODULE 5 [Applicability to Industry]

- Collection Framework
- Generics
- Event Handling

❖ Components

- Types of View Components
- Hypertext Transfer Protocol
- HTTP Get Method
- HTTP Request
- HTTP Request Headers
- HTTP Response
- Web container Architecture
- Request and Response Process
- HTTP Servlet API
- Web Application Structure
- Configuring a Servlet Definition
- Configuring a servlet Mapping
- Tomcat Deployment
- WAR Files for Deployment
- Designing a Controller Component
- Creating an HTML Form
- Controller Servlet
- Dispatching
- Containers
- Developing Applications Using Session Management
- J2EE Design Patterns
- Java Filter

MODULE 6 [Applicability to Industrial Projects]

- Project Scope
- Database Dictionary
- Flow Chart
- High Level Requirements
- MVC
- Implementing Web Services
- Deployment

MODULE 7 [Frameworks]

Client Side Server Side

- Javascript Spring
- Jquery Hibernate
- Angular JS