

JAVA-6Weeks

Project Based Training

Core Topics

1. J2SE
2. J2EE
3. 1 Project



J2SE(JAVA 2 STANDARD EDITION)

- ❖ **Introduction about J2SE**
 - History Of Java
 - Why Java Is Used
 - Features of Java
 - Java on LINUX and Window Platform
- ❖ **Software Specification Of Java**
 - About JDK(Java Development Kit)
 - Java Virtual Machine
 - Just In Time Compiler(JIT)
 - Execution Engine
 - Path Setting
 - Execution Life Cycle or Process
- ❖ **Fundamentals Of Java**
 - Structure Of Java Program
 - Naming Scheme
 - Output Statement with Lang Package
 - Variable
 - Operators
 - Data Type
- ❖ **Command Line Argument**
- ❖ **Run time Input**
 - Using DataInputStream class
 - Using Scanner class
 - Using BufferedReader and InputStreamReader class
- ❖ **Control Statement**
 - Conditional Statement
 - If Statement

- If-else Statement
- Ladder If Statement
- Nested If Statement
- Switch Case Statement

- Iterative Statement
 - While loop statement
 - For loop statement
 - Do while loop statement
 - For-each statement

- Break And Continue Statement

- ❖ **Array**
 - Single Dimension Array
 - Multi Dimension Array
 - Ragged Array

- ❖ **Vector**
- ❖ **String Class and String Handling Method**
- ❖ **String Buffer Class**

- ❖ **OOP concept and its features**
 - Encapsulation
 - Polymorphism
 - Dynamic Binding
 - Message Communication
 - Data Abstraction

- ❖ **Class And Object**
 - Creation of Class
 - Object Creation
 - Instantiate using New Keyword
 - Access the class member using Object.

- ❖ **Methods in java**
 - User define Method
 - Pre define Method

- ❖ **Constructor**
 - Features of constructor
 - Rules for create a constructor
 - Types of constructor

- ❖ **Polymorphism**
 - Compile time polymorphism
 - Run time polymorphism
- ❖ **Method overloading**
- ❖ **Constructor overloading**
- ❖ **Inheritance**
 - Single inheritance
 - Multilevel inheritance
 - Hierarchical inheritance

- ❖ **Interface and implementation of Multiple inheritance**
- ❖ **Abstract Method and class**
- ❖ **Wrapper Class**
- ❖ **Public, private, protected derivation**

- ❖ **Packages**

- User define package
- Predefine package

- ❖ **Final, Static Keywords**

- ❖ **Exceptional Handling in Java**

- Types of Exception
- Exception Handling classes
- Try and catch block
- Throws, throw and finally
- Assertion

- ❖ **Annotations**

- ❖ **Generics**

- ❖ **Reflection**

- ❖ **Windows Programming**

- AWT components
- Swing Components
- Event Handling

- ❖ **Applet**

- Difference between Applet and Application
- How to create an Applet
- How to execute an Applet
- Life Cycle of an Applet

- ❖ **File Handling**

- Binary Stream
- Character Stream
- Data Encryption and Decryption

- ❖ **Network Programming**

- ❖ **JDBC(Java Data base Connectivity)**

- ❖ **JAR file Creation**

- ❖ **Reporting using Crystal report**

J2EE (JAVA 2 ENTERPRISE EDITION)

- ❖ **Introduction to J2EE server**

- ❖ **Why use J2EE**

❖ **Tier Architecture**

- Single Tier
- Two Tier
- N-Tier

❖ **J2EE Components**

❖ **J2EE Containers**

❖ **J2EE Services**

❖ **Collection Framework**

- Collection Interfaces(ArrayList,Set, Sorted List)
- Link List, Hash Table, Tree Set
- Stack and Vector
- Date and time handling

❖ **Remote Method Invocation(RMI)**

- Distributed Applications
- RMI Architecture
- Implementation

❖ **Introduction To XML and its API**

- Document Type Definition (DTD)
- Simple XML Concept
- XML Designing tools
- XML Parser
- Document Object Module(DOM)

❖ **SERVLET**

- Introduction about web programming through Servlet
- Introduction about SERVLET
- How to Create Servlet
- How To execute a Servlet
- Servlet Life Cycle
- Attributes in Servlet
- Listener Of the servlet
- Session Management
 - Create or Initialize a session Object
 - Navigate through Session
 - Session Invalidate
 - Session Time Out
- Cookies in Servlet
 - Pre define cookies
 - Create own cookies
 - Read the data from cookies variable
- Filters
- DoGet and DoPost method

❖ **JSP(Java Server Pages)**

- Introduction about JSp
- Objective of JSP
- JSP Architecture
- JSP tags

- JSP life cycle
- Attributes of JSP
- Listener used in JSP
- Deploy a First JSP program
- Output statement of JSP and servlet
- JSP elements
- Expression Language
- Exception handling using jsp
- Data base connectivity
- Mail System
 - Sending A mail
 - Receiving the mail
 - Send mail with attachments

