

# WHAT YOU WILL LEARN IN THIS JAVA TRAINING COURSE?

## Introduction to Java

Introduction to Java

Introduction of Students Career in IT

Working on Project and Assignment Using Lab

## Fundamentals of Java

Conditional Statements (If, If Else, Nested If Else If) (Switch Case)

Loops (While, Do While, For)

Break and Continue

SDLC Process

- Project Analysis
- Analysis In Details
- DFD(with practical)
- Introduction of DFD
- Rules for Drawing DFD
- Context Level
- First Level
- Second Level
- Data Dictionary
- Flow Chart
- Data Dictionary
- Flow Chart

## Learning Core Java

Introduction of Core Java

Eclipse IDE

JVM,JDK,JRE

Class, Object, Method

- Constructor
- Garbage Collection
- Finalize
- Source File Layout
- Package Management

- Import Statement
- Data types
- Primitive Types
- Reference Types
- Modifiers- Public, Private, Protected, Default
- Conditional Statements and Looping Statements

## Array Introduction

- Why Array? Advantages
- Types of Array
- Resizing Array
- Copying Array
- Primitive types and Reference type Arrays
- Encapsulations
- Inheritance – Introduction
- Advantages of Inheritance
- Types of Inheritance
- Practical of Inheritance
- Practical of Inheritance with Constructor
- Polymorphism
- Types of Polymorphism
- Method Overloading and Method Overriding

## Abstract and Interface – Introduction and Difference

- Keywords – This, Static, Final, Super

## Classes

- Object Class(only Important Methods)
- String Class (Only Important Methods)
- String Buffer & String Builder
- Wrapper Classes

## Exceptions

### Introduction – Why Exceptions

- Types of Exceptions
- Try catch and Finally Block
- Multi-catch Exceptions

- Throw and Throws keywords
- Method Overriding with Exceptions
- Custom Exceptions

## FILE I/O

- What is Stream and Types of Stream
- File Input Output Streams and Its Methods
- File class
- Command Line Arguments

## Thread-Introduction

- Thread Life Cycle
- Creating Threads
- Thread Class Methods (Only Important Methods)
- Runnable Interface
- Synchronized block and Synchronized Methods

## Collection Framework – Introduction

- Collection API
- Hierarchy of Collections
- List and Set and Map Collections
- ArrayList, vector, and Other Classes
- Generics
- Comparator and Comparables

## JAVA GUI

- AWT (Introduction only) & Swing (in Details)
- Components, Containers, Frame, Window, Panel, Layout
- All Components
- Events, Event Handling

## RDBMS & Java Database Programming

### Database

### DDMS and RDBMS

### Introduction

### MYSQL

- MYSQL IDE
- Query Types

- DDL,DML,DQL, DCL
- Constraints
- Primary Key
- Foreign Key
- Unique Key

## Normalizations

- 1NF
- 2NF
- 3NF
- Joins
- All Joins Types
- Advance Database
- Indexers
- Views
- Procedures
- Functions
- Cursor
- Triggers

## JDBC (Insert, Update, Select, Delete)

### Introduction of JDBC

- Driver Types
- Steps for Creating Connections
- Types of Statements (Statements, prepared Statements and Callable Statements)
- Result Set Interface
- Database Metadata
- Result Set Metadata

## Web Technologies in Java

### HTML

- UL Tag
- LI Tag
- a Tag
- IMG tag
- Table, TR, TD tag

## Form tags with Attributes

- All input tags
- CSS
- Types of CSS
- Pseudo- Classes
- Margins and Puddings
- CSS background
- CSS using ID and Class
- JavaScript
- Events
- Validations
- Validations with Regular Expressions
- Firebug
- Template Integration

## Introduction of Client-Server Architecture

- HTTP Protocol overview with Request and Response header explanation
- J2EE Architecture Overview

## Web Component Development In Java

- CGI Programming Process Advantage and Disadvantage
- Servlet Programming Introductions
- Advantage and Disadvantage
- Servlet Versions
- Types of Servlets
- Difference between HTTP Servlet a Generic Servlet
- Servlet Life Cycle
- Creating Servlets
- Servlet Entry in web.xml
- Logical URL
- Servlet Config Interface
- Request Dispatcher Interface
- Forward and Include Methods
- Servlet Context Interface
- Web Application Listener
- Scope of Objects, Request, and Response

## **Application (Context) , Config Java Filters – Introduction**

- What are the needs
- Filter Life Cycle
- Process of Execution Filter
- Applying Filter
- Entry in web.xml
- URL Pattern with Filter

## **JSP Introduction**

- JSP Translation
- JSP Life Cycle
- Comments
- Directives
- Scriptlets
- Expression
- Declaration
- Implicit Objects
- Action
- JSTL
- Custom Tags

## **Java Industry Real Time Project Implementation**

### **Session Management – Introduction**

- What are the needs?
- Session Tracking Technique
- Hidden Form Fields
- URL Rewriting
- Cookies
- Session

### **Design Pattern**

- MVC Design Pattern with Example

### **AJAX Programming With Example**

### **Introduction to Distributed Technologies**

### **RMI, EJB and WEB Services Introduction**

## Hibernate In Java

### Hibernate Introduction

- Hibernate Architecture
- Hibernate Configuration
- All Core Interface

### Query and Criteria

### Named Query

### All Relationships

- One to One
- One to Many
- Many to One
- Many to Many

### All Database Operations with hibernate

## Spring Framework In Java

### Overview Of Spring Framework

### Introduction of Spring Framework Architecture

### Core Container

### AOP (Aspect Oriented Programming)

### Spring DAO (Data Integration)

### Web

### Spring Using IDE

- Using Library

### Spring Hello World Example

### Spring IOC Container

- Bean Factory
- Application Context

### Spring Bean Definition

- Configuration
- Life Cycle
- Inheritance
- Scopes

## Spring Dependency Injection

- Constructor-based
- Setter Getter based
- Inner Beans, Aliases, and ID-ref
- Collections and References
- Auto Wiring

## Spring AOP

- AOP Term
- Write the Aspects
- Configure Where the Aspects

## Spring ORM

## Spring MVC Web Forms

- Spring Form Handling
- Spring Form Tags
- Spring Controller XML and Annotation Based

## Spring MVC with Session Management

## Spring CRUD Operation using Hibernate ORM

Java Live Project

Cloud Computing – Introduction

Types

Hosting

