

Java | J2EE

Full Stack Java (Core Java & Advance Java)

JDK 1.8 New Features

Java 8 Interface default method

Java 8 Interface static Method

Java 8 Functional Interface

Java 8 Functional Interface Examples

Java 8 Lambda Expression

Java 8 for Each () Method

Java 8 Stream API

Java 8 Collection

Important Features of Java

History of Java

Important Features of Java

JVM Architecture

JDK 1.8, JRE and JVM

Java Keywords

Simple Hello World Program

Java Flow Control

Source File

Class and Objects

Data Types

Primitive Data Types

Non – Primitive Data Types

Constructor

Packages

Instance & Static Variable

Static Block

Has-A Relation (secondary Reference)

Setter and Getter

Method return type (primitive type and class type)

Object Oriented Programming (OOPS)

Inheritance (IS-A)

Constructor and Inheritance

Inheritance with parent reference and Child constructor

Covariant Return Types

This/Super Keyword

Polymorphism

Method Overloading

Constructor Overloading

Compile time Polymorphism

Method Overriding

@override Annotation

Abstraction

Abstract class

Interface

Marker Interface

Interface and Multiple Inheritance

Difference of Interface and Abstract class

Encapsulation

Access Modifier

Data Hiding

Protected Access Modifier Implementation

Project on OPP'S Concept

Exception Handling

Exception Handling

What and Why? (Try, Catch, Finally, Throw, Throws, Try with Resources)

Try and catch block

Multiple catch blocks

Nested try

Finally block

Throw keyword

Exception Propagation

Throws keyword with Method Overriding

Throws keyword with Constructor

Custom Exception

Throw keyword and Custom Exception

JDK 1.7 Feature Auto-Closeable Interface

JDK 1.7 Feature try with Resources

String Handling

String: What and Why?

Immutable String

Methods of String class

Creating Immutable class

Collection Framework

Java Collection

Java List

Array List

Vector

Linked List

List and Sorting

List and Duplicate

Java Set

HashSet

Tree Set
Linked HashSet
Nested Set
Nested Set
HashMap
Linked Hash Map
Weak Hash Map
Weak Hash Map

Iterator

List Iterator

Enumeration

Comparable & Comparator

Costume Sorting

Difference in Comparable and Comparator

Collection and Generics

Project on Collection Framework

Multi Threading-

Introduction

Extends Thread Class

Implementing Runnable interface and Callable interface

Demon Thread & Non-Demon Thread

Inter Thread Communication (Producer-Consumer)

Thread Methods (sleep, join, yield etc.)

Synchronization

Synchronization: What and Why?

Synchronized method

Synchronized block

Static synchronization

Input and Output

File

File Writer & File Reader

Buffered Writer

Buffered Reader

Input from keyboard by Console

Input from keyboard by Scanner Class

Print Writer class

Reading and Writing data simultaneously

JDBC API

What is JDBC DBC Drivers

Steps to connect to the database

Connectivity with MySQL

Driver Manager

Connection Interface

Statement Interface

Prepared Statement

Statement

Prepared Statement

Callable Statement

CRUD Operations

Project on JDBC

Hibernate 5.X

Introduction

ORM (Object Relational Mapping)

Advantage of ORM

ORM Tools List

Hibernate architecture

Hibernate with JPA

Installation and Directory Structure

Hibernate and Annotation

Hibernate Configuration File

Hibernate with Java Based (Zero XML file)

Hibernate Utility file

Load and get method difference

save, server Update, persist method

Inheritance in Hibernate (IS-A)

Hibernate Mapping (Has-A)

One-To-One

One-To-Many

Many-To-One

Many-To-Many

Hibernate Query Language (HQL)

Hibernate Annotations

Caching in Hibernate

First Level Cache

Second Level Cache

Scalar queries

Native SQL

Criteria Builder

Name Queries

Procedures

Criteria Builder

Hibernate Transaction Management

CRUD Operations

Project on Hibernate

Spring IOC-

What is Spring

Spring Modules

What is IOC

Spring IOC Container

Bean Factory/Core Container

Application Context/Advance /J2EE Container

Spring Bean life Cycle

Bean Scope

Singleton Scope

Prototype Scope

Lazy and Eager Loading Concept

Scope Combination

Dependency Injection

Setter Based

Constructor Based

Spring IOC Container

Setter Based XML & Java Based

Primitive and Secondary

Constructor Based XML & Java Based: -

Primitive and Secondary

Autowiring

By Name

By Type

Constructor

Autodetect

None

Spring Web MVC:

Spring MVC

Features Of Web MVC

Life Cycle of Web MVC

Execution Flow of MVC

Create the Request and view Pages

Create Controller

Configure Dispatcher Servlet

Configure view Resolver

Stereotype Annotation in MVC

o @ Component

o @ Controller

- o @ Service
- o @ Repository

Spring MVC

- o @ Request Mapping
- o @ Request Param
- o @ Path Variable Handler Mapping Controller Class

View Resolvers

Spring Hibernate Integration (XML and Java Based)

Project on Spring MVC

Spring Boot

Spring Boot Introduction

Spring Boot Features

Advantages Over Spring Web MVC

Creating Spring Boot Application Using Maven

Using Spring Initializer (<http://start.spring.io/>)

Using Spring STS IDE

Removal of XML Files

Simple Application Using Spring Boot

Spring Boot Starters

Spring Boot Application Annotation

Spring Application Class

Spring Boot Actuator

Embaded Servlet containers

Spring Boot Profiles

DEV

PROD

UAT

Spring Boot with Data JPA (CRUD Repository)

Spring Boot JPA

What is Spring Boot JPA?

JPA Annotations

Curd Repository

JPA Repository

Custom Queries

Using Method Name

Using Method NameJPA Named Queries