

JAVA FULL STACK DEVELOPER



Full Stack Java Developer

Core JAVA

Introduction

Why Java

Diff B/W Java & Other (C, C++)

Variables

Java Data Types

- Primitive data types
- Reference data types

Control statements

- If
- If else
- Nested if
- Nested if else
- Switch case

Operators

- Unary operator
- Arithmetic operator
- Relational operator
- Bitwise operator
- Logical operator
- Ternary operator
- Assignment operator

Loops

- For loop
- While loop
- Do while loop
- Enhanced for loop

Class

Arrays

- Single dimensional
- Multi-Dimensional
- Jagged Arrays

String

- String literal
- String Non literal
- String Buffer
- String Builder

Inheritance

- Single
- Multilevel
- Hierarchical
- Multiple
- Hybrid
- Why not java support multiple inheritance and Hybrid

Polymorphism

- Compile Time Polymorphism
- Run time Polymorphism

Encapsulation

Constructor

- Default constructor
- Parameterized Constructor
- Constructor Chaining

Abstraction

- Partial Abstraction
- Fully Abstraction (Interface)
 - Common Interface
 - Functional Interface
 - Marker Interface
- Anonyms class

Exception Handling

- Checked exception
- Unchecked exception
- User defined exception
- Throw & throws difference

Access Modifier

- Private
- Default
- Protected
- Public

Non-Access Modifier

- Abstract
- Static
- Final

Multi-threading

- Lifecycle
- Naming
- Priority
- Default functional interface
- Synchronization

Collection API

- List
- Queue
- Set
- Map
- Hashing and internal working
- Difference between hash code and equals

method

Java Debugger

Wrapper Class

Recursion

Enum

Garbage Collector, Finalize

Inner class

Regex

File handling

ADVANCE JAVA

MySQL Queries

- Installation and Configuration
- Select
- Insert
- Update
- Delete
- Joins
- Primary key
- Foreign key
- Order by
- Group by

JDBC

- Class loader
- Connection process
- SQL Queries handling in java
- Prepared statements
- Result set

SERVLET and JSP

Introduction to Servlet

Eclipse Setup & Configure Tomcat

Creating Web Project, Create Servlet & Web.xml

GET & POST Method

HttpServletRequest Request & HttpServletResponse Response

Request Dispatcher & sendRedirect

HttpSession & Cookie

ServletConfig & ServletContext

Servlet Annotation Configuration

JSP Introduction

JSP to Servlet Conversion

JSP Tags

- Scriptlet
- Declaration
- Directive
- Expression

Implicit Object in JSP

Exception Handling in JSP

JDBC in JSP

JSTL Introduction

- JSTL Core Tags
- JSTL Tutorial SQL Tags
- JSTL Tutorial Function Tags

Back Button Configuration

File Upload in Java Servlet

Mini project

Java 8 Features

- Functional interface
- Lambda expression
- Streams API
- Collection vs Java 8
- Map vs Flat map in Java 8
- IO stream Vs Stream API
- String Joiner
- Date formats updates

JAVA FRAMEWORKS

Java Spring

- Introduction to Spring
- Spring Core
- Spring IOC introduction and its configuration
- Introduction dependency injection
- Introduction to Maven and its configuration
- Application context
- Xml configuration
- Annotation based configuration
- Autowired annotation

Spring MVC

- Introduction to Spring MVC and its configuration
- Front controller or DispatcherServlet
- Controller and RequestMapping

Spring JDBC

Hibernate

- Introduction to Hibernate and its configuration.
- How to get data using Hibernate?
- Hibernate Mapping relations.
- Hibernate Caching
- Hibernate Query Languages.
- Hibernate uses in Project
- JPA ORM Implementation.

Rest API

Spring Security

Postman Application

JAVA SPRING BOOT FRAMEWORK

- Introduction to Spring Boot
- Spring Tool Suite (STS) IDE Configuration
- Creating web application using spring boot
- Application properties file
- Model and View
- Model object
- Spring Boot Data JPA
- Spring Boot MVC
- Spring Boot Data Rest

HTML and CSS

Introduction to HTML

- Text
- List
- Links
- Images
- Tables
- Forms
- Audio and Video

Introduction to CSS

- Colors
- Text
- Boxes
- Position
- Float
- Gradient
- Flex Box
- CSS grids
- Transition
- Animation
- Mini Project

JAVA SCRIPT

Introduction to JavaScript Variables and Data Types

Data Types

- Primitive values
- Reference values
- Types
- Type conversion

Expressions and Operators

- Arithmetic,
- Relational,
- Logical,
- Assignment and others

Control structures

- Loops and iteration.

Error handling

- Throwing errors,
- Error handling.

Strings

- String literals,
- String object,
- String methods,
- Working with Strings.

Arrays

- Array methods,
- Working with Arrays

Functions

- Creating functions,
- Calling functions,
- Functions as values,
- Arguments and parameters,
- Function scope.

Collections

- Set object type
- Map object type

Iterators and generators

- Working with Iterators
- Working with Generators

Regular Expressions

- Creating regular expressions,
- RegExp object and its methods.

Objects

- Creating object,
- Properties,
- Methods.

Prototype based Object Oriented Programming

- Defining Constructors,
- Prototypes,
- Inheritance.

Classes

Interview Preparation.