

full-stack development





JAVA FULL STACK 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

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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)
 - o Common Interface
 - o Functional Interface
 - o 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

HttpServlet Request & HttpServlet 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

Frame work - React JS



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.

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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.







scan the QR code for more details