Topics

* Core Java
* JDBC, Servlets & JSP
* HTML, CSS, Typescript, Javascript
* Git
* UML
* Junit
* Spring Framework
* Spring Boot & Microservices
* Python
* Cloud & Containers
* Design Patterns
* React.js

Java

It is a platform independent & object oriented programming language.

Platform Independent: You can run java programs on various platforms without re-compiling

Object Oriented Language: You create real world entities in the application and define the properties & behaviors of these real world entities, these real world entities are called as objects.

Two things are must in object oriented language which are also called as building blocks of an object oriented language

1. class: blueprint or template of an object
2. object: an instance created from the class

run -> entry point -> C/C++/Java -> main method

Java: public static void main(String[] args) { }

class Hello {   
 public static void main(String[] args) {   
 System.out.println(….);  
 }  
}

String[] - it is a command line argument which accepts the input from the user before launching the main

static - you can access static members without creating the object

public - visible outside the class

Softwares required

1. JDK - javac, java commands
2. Editor - notepad, vscode or IDE like Eclipse

Eclipse -> File -> Other -> Java Project

Fundamentals

1. Variables - these are the memory to store the data
2. Datatypes - byte, short, int, long, float, double, char, boolean, arrays & complex types
3. Operators - \*, -, +, /, ++, --, <=, >=, ==, >, <, %, !=, &&, ||
4. Conditional statements - if else .. if else if .. else, switch
5. Loops - for, while, do while
6. Jump statements - break, continue, return

Java Naming conventions

avoid using variable names like a, b, c, i, j, k, x, y, z as they don’t explain themselves what they are instead use variable names like name, age, phoneNumber, gender and so on

Similarly for methods / functions you must use the names which are having meanings like

display(), update(), getDetails(), searchEmployee(), searchCustomer() and so on, avoid using test(), demo(), abc() and so on.