Java Basics Learning Summary

This document summarizes all the Java basics topics covered as part of my foundational learning journey.

☑ Topics Covered

- Java setup, JDK, JVM, and Hello World program
- Java syntax and structure
- Printing text, numbers, and variables
- Comments (single-line and multi-line)
- Variables and identifiers (including multiple variables)
- Primitive and non-primitive data types
- Type casting (implicit and explicit)
- Operators (arithmetic, logical, comparison, assignment)
- String operations (concatenation, special characters, immutability)
- Math class functions (Math.max(), Math.min(), Math.random())
- Boolean values and logic
- Conditional statements: if-else, switch-case
- Loops: while, do-while, for loop, for-each loop
- Break and continue statements
- Arrays: 1D, 2D, and multi-dimensional
- Wrapper classes and autoboxing/unboxing
- StringBuilder and StringBuffer usage
- Java Memory Model (Heap, Stack, Garbage Collection basics)
- Access Modifiers: public, private, protected, default
- Compiling and running Java programs using terminal (javac & java)
- Compile-time vs Runtime errors
- Bitwise operators (&, |, ^, <<, >>)
- Enums: declaration and usage
- Varargs (variable-length arguments) in methods
- Java coding standards and naming conventions