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Day 4 Core Java Revisit

JAVA programming Lang

WWH

What is Java – It’s a Platform-independent, Object Oriented Multi(General) purpose programming Lang.

James Gosling & Team – Father of Java –

Problems with C

1. Not Object Oriented
2. Middle level lang (Complex concepts – pointer, manual memory mgmt.)
3. Platform dependent
4. Security Concerns

Platform independent – WORA (Write Once Run Anywhere) –

JDK, JRE & JVM are platform dependent

Security

Java is not a pure OOP lang. (Bcos of usage of primitives – Wrapper Class)

1. Boolean (1 bit)
2. Byte (8 bits/1 Byte)
3. Character (16 bits/2 Bytes)
4. Short (16 bits/2 Bytes)
5. Integer (32 bits/4 Bytes)
6. Float (32 bits/4 Bytes)
7. Long (64 bits/8 Bytes)
8. Double (64 bits/8 Bytes)

Boxing – Auto Boxing (When we use primitive data in any collection)

Boxing – Converting primitive to it’s corresponding object representation

Un-boxing – reverse of boxing

Type casting [ Converting from one primitive to another primitive data type]

1. Implicit Type casting (Automatic ) Widening (Small to Big)
2. Explicit Type casting (Manual)

Diff betn JDK, JRE & JVM

JDK – Java Development Kit

JRE – Java Runtime Environment

JVM – Java Virtual Machine

<https://docs.oracle.com/javase/8/docs/api/> - Java SE8 API documentation URL

java.lang is the default package in Java (System, String) – This package will be imported automatically by JVM.

Flavors (Editions) of Java

1. J2SE – Core Java (Java 2 Standard Edition) – Stand -alone application
2. J2EE – Adv Java (Java 2 Enterprise Edition) – Web-based or app-based
3. J2ME – Micro/Mobile Java (Java 2 Micro/Mobile Edition) – app-based (mobile-based)