**Java Training Notes**

1. Intermediate code is OS dependent.
2. C lang is faster than java (native language)
3. Tool “linker” obj +exec.

Take a byte code and convert into native code.

Java ---🡪 .class – (byte code)🡪 interpreter (part of Jvm) (native code)🡪 OS

.class as dll/sll file (in term of C Lang) ---class loader

Import is eliminated at compile time - java.lang.String (fully classified class name) s =

Java loaded at dynamically runtime.

Reference count - 2 ---- p1, p2 p1 =new person() , p1=p2.

Int v =10 or v=10 ; primitive (basic data type) var store value in that , reference (for not data type)var point to object.

Jvm – 32 bit architecture, Java encoding scheme is Unicode. C is ascii.

all data types in java are signed except Short in unsigned (-xyz to +yzx).b+=1

Language fundamental.

new B(); -create object without reference compiler create anonymous reference.

Chaining constructer.

Object graph In framework (e.g ORM).

Breakpoint. Text cursor – caret

Help – key assist (eclipse)

Ctrl+shft+b – brake

F11 –debug

F5 – step into

F2 – to terminate

Class name is not keyword ,is in different package

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Impl is non abstract method

Specification is abstract method

Abstract class is protocol (it has to follow)/specification

Classified –

DDD –Deadly diamond death

Java support Single implementation inheritance. (class level)

Interface does/should not belong to any hierarchy.(behaviors) interface should not tied with hierarchy.

Comparable /comparable interface can compare any object.

Noun –class

Pet – adjective to interface.

Only Constant is there in interface, static final = compile time constant, replace value directly by compiler, No constructor.

Checked & unchecked exception, not known as compile and runtime exception.

Exception u have to handle. Throwable hierarchy to identified exception.

Which category is checked and unchecked.sub class of error and runtime exception is unchecked exception.

Bug in code is unchecked exception/logical issues, runtime exception can be avoid using validation code (code should be robust).

Unchecked – error & runtime exception

Checked exception – file not found ,sql exception,ioexception – exception occurred due to environment issue. Use try catch in case of checked exception

Flag a risky code in case of checked exception.forced by compiler

Pipeline: – dev 🡪 test 🡪 stage 🡪 prod

User story – Jira – test cases

Groovy test case, cucumber, Junit, uniting testing.

Java unit - class

TDD :– red (static code analysis )🡪green 🡪 refractor

Fail test case (method) - coding test case become green - design patter /good practice (refractor)

Mocking dependency (Mockito)

Ci – does not include integration and functional testing

SRT – system regression testing –CD

------------------------------------------------------------------------------------------------------------------------------------------Assertion – assert static method – assert Keyword in java – false (assertion error) abruptly termination

e.g – assert (distance > 0); , abs func.

Assertion error is failure, all exception is exception (junit runner).