**Java Introduction**

**Java Features**

1. **Platform Independent**
2. **Secure**
3. **Portable**
4. **High Performance**
5. **Robust**

**Java Edition**

**JDK vs JRE vs JVM**

**JDK**

* Compiler
* Debugger
* Profiler

**JRE**

Java API

**JVM**

Garbage Collection

Memory Management

Execution

JRE

JDK

JVM

Final keyword is used to keep the value unchanged

Docker Desktop

Task Day 1: Take one more argument as operator then perform operation accordingly…If any other option other than

If operator is Add/sub/mul/div then report error

Create a Git Hub Repository [5:43 PM] Saravana (Guest)

lowes\_javabootcamp-dih-batch3

**Day 2**

**Memory**

-Stack Memory – Local Variable, Parameters passed,

-heap Memory – Object/Reference Variable like String

- Metaspace – Static member will be stored, caching the byte code or class …before it was Permgen

Public class Calculator

{

Public static void main (String args[])

{

Int a = 20;

Int b =10;

Long out = a+b

String name = new String (“Lowes”);

}

}

a, b, out will be Stack Memory – so total it will take 4B – a, 4B - b

Name will be in Heap – 2 bytes will be allocated to pointer/reference

Java Source ->compile->Byte Code->Interpreted->Machine Instruction->JVM do this…

JNI

* Native Method Interface…convert all at a time…

Interpreter – Compile and convert line by line code…

Control Structures

IF ELSE

If(expr){

}

If(expr)

{

}else if (expr)

{

}

If()

{

}

Else

{

}

SWITCH CASE

LOOP

While

For

Do..while

Foreach

Naming Convention

Variable name – start letter should be small - empId

Method name – start letter of first word is small subsequent word should start wit capital - createEmp

Class name – every word should start with caps -EmployeeLocation

Package name all small. Logical words can be separated by .

Short cut key fr multipline – ctrl +shift+/

Single line – cotrl +/

JVM entry point is main method and if we use exit then JVM will stop the execution…Return will give back the calling method…

To get updated git clone

Go inside the folder C:\DIH Cohart 3 Tech \_Ashwini Bhat\Training\lowes\_javafullstack-dih-batch3

Use **git pull** command

2 types of repository

* Local
* Centralized

Git status to show what are the modification done after last commit

Git add filename is used to add file to the git…The file will be moved to staging means moving file to local repository..

Git commit for moving files from staging to the local repository

Git commit -m “message”

Git push – local to central repo

If SSL certificate issue then

git -c http.sslVerify=false pull

After adding to restore

Git restore –staged filename/folder name

**ASSIGNMENT 01: Create a simple prime number program - PrimeNumberCheck**

**ASSIGNMENT 02: Create a simple odd even number program - OddEvenCheck**

**ASSIGNMENT 03: Create a swap of two numbers program – SwapNumbers**

**ASSIGNMENT 04: Sort given N nos - SortNumbers**