

DAY 1

JULY 19_Core Java

Q1)What is platform independent and dependent among JDK,JRE,JVM?

ANS:-

Platform independent means that the application can run in different operating environments.

Platform dependent typically refers to applications that run under only one operating system in one series of computers (one operating environment); for example, Windows running on x86 hardware or Solaris running on SPARC hardware.

JVM, JRE and JDK are platform dependent because configuration of each OS differs.

But, Java is platform independent.

JDK –JDK is platform dependent i.e there is separate installers for Windows, Mac, and Unix systems.

JRE – The Java Runtime Environment (JRE) is part of the Java Development Kit (JDK). It contains set of libraries and tools for developing java application. And thus it is also platform dependent.

JVM – depends on the operating system – so if you are running Mac OS X you will have a different JVM than if you are running Windows or some other operating system.

Q2)Can we use/download JRE directly without downloading JDK?

ANS:-

You can't develop java programs only with JRE. You will need JDK for compiling your programs. JRE provides only runtime environment, but JDK is something you will need to compile your code to make them executable by your JRE . You will need javac for compiling your code which is present in JDK .

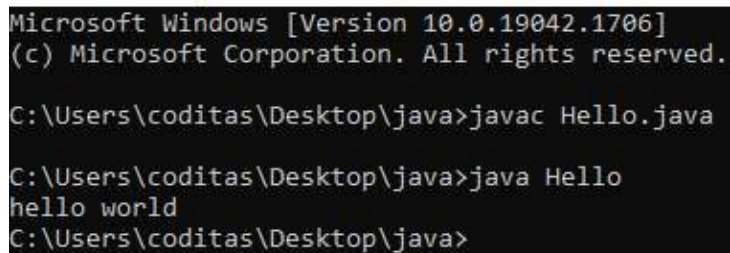
But we can use only jre if we have the compiled code ie. the byte code.

Jre is used to execute the code after compilation. And jdk is used to built the code and compile it.

Q3) Create a simple class "HelloWorld" and print "HelloWorld"?

ANS:-

```
class Hello{  
    public static void main(String args[]){  
        System.out.print("hello world");  
    }  
}
```

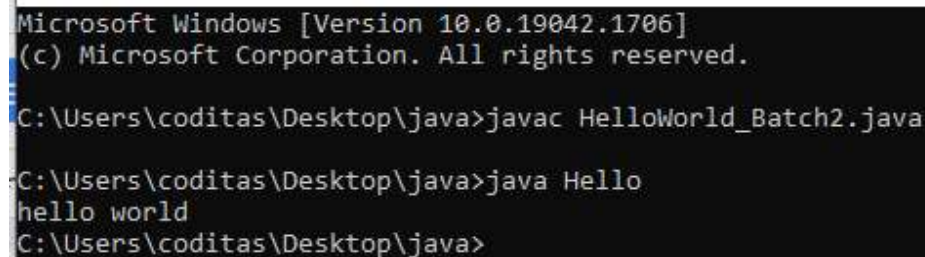


```
Microsoft Windows [Version 10.0.19042.1706]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\coditas\Desktop\java>javac Hello.java  
  
C:\Users\coditas\Desktop\java>java Hello  
hello world  
C:\Users\coditas\Desktop\java>
```

Q4) Use the above-mentioned class and save this file as "HelloWorld_Batch2.java" and try to execute the code.

Add the execution commands with proper output.

ANS:-



```
Microsoft Windows [Version 10.0.19042.1706]  
(c) Microsoft Corporation. All rights reserved.  
  
C:\Users\coditas\Desktop\java>javac HelloWorld_Batch2.java  
  
C:\Users\coditas\Desktop\java>java Hello  
hello world  
C:\Users\coditas\Desktop\java>
```

Q5) Create Simple Calculator program?

ANS:-

```
import java.util.*;  
public class Calculator{  
    //function for addition  
    public static int addition(int a, int b){
```

```

        return a+b;

    }
    //function for multiplication
    public static int multiply(int a, int b){
        return a*b;

    }

    //function for division
    public static int division(int a, int b){
        return a/b;

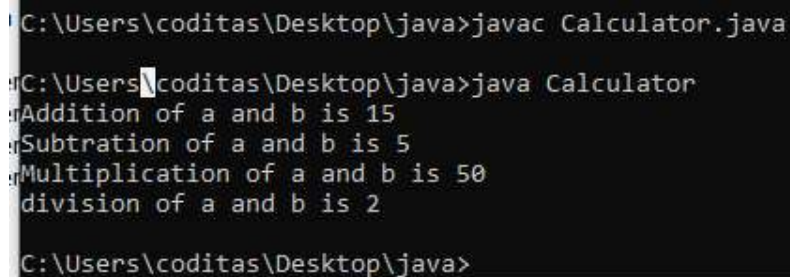
    }
    //function for subtraction
    public static int subtraction(int a, int b){
        return a-b;

    }

    public static void main(String args[]){
        int a = 10 , b = 5;

        System.out.println("Addition of a and b is"+ " " + addition(a,b));
        System.out.println("Subtration of a and b is"+ " " + subtraction(a,b));
        System.out.println("Multiplication of a and b is"+ " " + multiply(a,b));
        System.out.println("division of a and b is"+ " " + division(a,b));
    }
}

```



```

C:\Users\coditas\Desktop\java>javac Calculator.java

C:\Users\coditas\Desktop\java>java Calculator
Addition of a and b is 15
Subtration of a and b is 5
Multiplication of a and b is 50
division of a and b is 2

C:\Users\coditas\Desktop\java>

```

OR
IN OPTIMIZE WAY

```

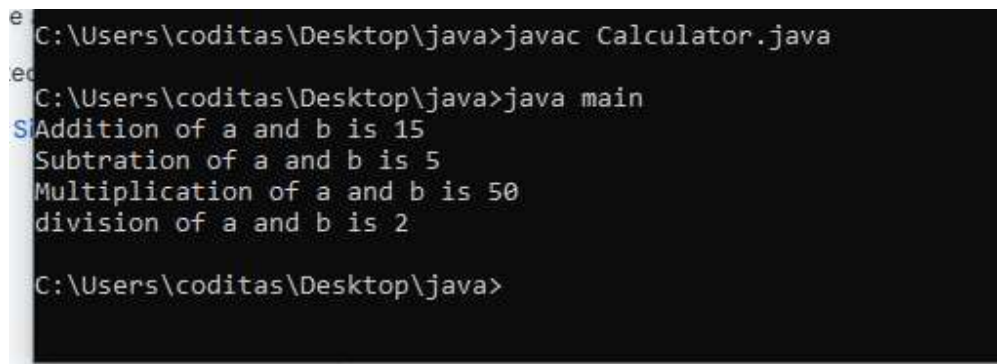
import java.util.*;
public class Calculator{

```

```
//function for addition
public static int addition(int a, int b){
    return a+b;
}
//function for multiplication
public static int multiply(int a, int b){
    return a*b;
}

//function for division
public static int division(int a, int b){
    return a/b;
}
//function for subtraction
public static int subtraction(int a, int b){
    return a-b;
}
}
class main{
    public static void main(String args[]){
        int a = 10 , b = 5;
        //Calculator cal=new Calculator();

        System.out.println("Addition of a and b is"+ " " + Calculator.addition(a,b));
        System.out.println("Subtration of a and b is"+ " " + Calculator.subtraction(a,b));
        System.out.println("Multiplication of a and b is"+ " " + Calculator.multiply(a,b));
        System.out.println("division of a and b is"+ " " + Calculator.division(a,b));
    }
}
```



```
e C:\Users\coditas\Desktop\java>javac Calculator.java
ec C:\Users\coditas\Desktop\java>java main
SAddition of a and b is 15
Subtration of a and b is 5
Multiplication of a and b is 50
division of a and b is 2

C:\Users\coditas\Desktop\java>
```

