KIIT

KALINGA INSTITUTE OF INDUSTRIAL TECHNOLOGY (KIIT)

Deemed to be University U/S 3 of UGC Act, 1956

WT ASSIG 1

- Name :HITU RAJ
- Roll no. :2005025
- Branch :CSE

```java
// 5. Write a program that displays the results of a series of 10 coin tosses. Use
// Math.random() function to generate a number between 0 and 1. After each coin toss,
// display whether the toss represents 'heads' or 'tails'. If the result is 0.5 or less, the
// result represents 'heads'; otherwise, it represents 'tails'.

public class Main {
    public static void main(String[] args) {
        int i;
        for (i = 0; i < 10; i++) {
            if (Math.random() < 0.5) {
                System.out.println("Heads");
            } else {
                System.out.println("Tails");
```

```
            }
        }
    }
}
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\my codes\web tech lab\assignment> cd "d:\my codes\web tech lab\assignment\" ; if ($?) { javac Main.java } ; if ($?) { java Main }
Heads
Heads
Tails
Tails
Heads
Tails
Tails
Heads
Tails
Heads
PS D:\my codes\web tech lab\assignment>
```

```java
// // 6. Write a program in Java to implement the concept of dynamic method
dispatch using
// method overriding.
import java.util.Scanner;



class trees {

    int no;

    void tree() {
        System.out.println("this is tree class");
    }
}

class mango extends trees {

    int no;

    void tree() {
        System.out.println("this is mango class");
    }
```

```java
}

class apple extends mango {

    int no;

    void tree() {
        System.out.println("this is appple class");
    }
}

public class q2

{
    public static void main(String[] args) {
int x;
        Scanner sc=new Scanner(System.in);

        System.out.println("from the object of apple class and mangoclass
acceesing method of tree class ehich is inherited hierachial");
        mango m = new apple();
        m.tree();

        trees a= new mango();
        a.tree();


    }
}
```
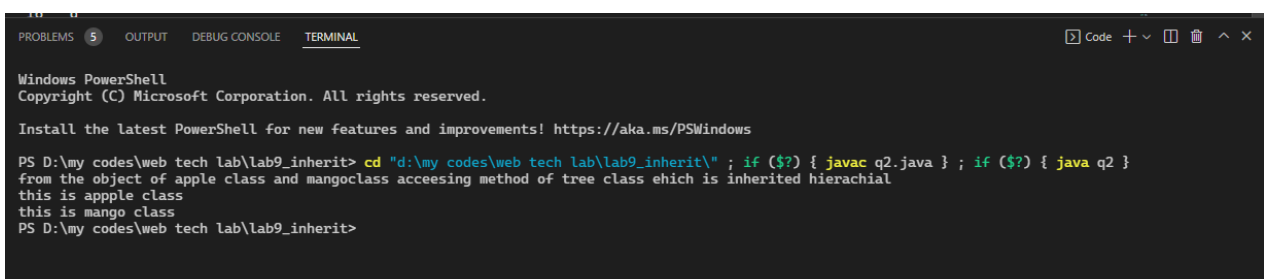
OUTPUT-6

```java
// 7. Write a program in Java to implement constructor overloading.
class shape {

    void area() {
        System.out.println("the is use to calculate area method");
    }

    void showarea() {
        System.out.println("this the use to siplay area");

    }
}

class circle extends shape {

    int r = 20;
    float area;

    void area(int x) {

        area = (float) 3.14 * x * x;
    }

    void showarea() {

        System.out.println("area of circle is " + area);
    }
}

class rectangle extends shape {

    int l = 5, b = 3;

    float area;

    void area(int x, int y) {

        area = (float) l * b;
    }

    void showarea() {

        System.out.println("area of rectangle is " + area);
    }
}

 public class q3_area

{
    public static void main(String[] args) {

        circle m = new circle();
```

```
        m.area(20);
        m.showarea();

        rectangle a = new rectangle();
        a.area(20, 40);
        a.showarea();

    }
}
```

```
Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\my codes\web tech lab\lab9_inherit> cd "d:\my codes\web tech lab\lab9_inherit\" ; if ($?) { javac q3_area.java } ; if ($?) { java q3_area }
area of circle is 1256.0
area of rectangle is 15.0
PS D:\my codes\web tech lab\lab9_inherit>
```

```java
// 8. Write a program that prompts the user to input two numbers, first and
diff. The
// program then creates a one dimensional array of 10 elements and
initializes them with
// an arithmetic sequence. The first number of the sequence is the first
value and the
// next number is generated by adding the diff to the number preceding it.
This formula
// is repeated for the rest of the sequence. E.g. if first =11 and diff = 4,
then the
// arithmetic sequence will be 11, 15, 19, 23, 27, 31 ... and so on.

import java.util.*;

public class Q8other {
    public static void main(String args[]) {
        Scanner sc = new Scanner(System.in);
        System.out.print("Enter first- ");
        int first = sc.nextInt();
```
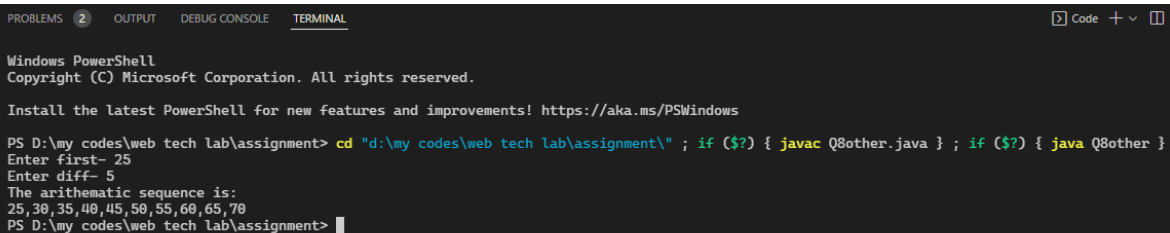
```java
        System.out.print("Enter diff- ");
        int diff = sc.nextInt();
        int array[] = new int[10];
        array[0] = first;
        for (int i = 1; i < 10; i++) {
            array[i] = array[i - 1] +
                    diff;
        }
        System.out.println("The arithematic sequence is:");
        for (int i = 0; i < 10; i++) {
            System.out.print(array[i]);
            if (i != 9) {
                System.out.print(",");
            }
        }
    }
}
```

OUTPUT-8

```
PROBLEMS 2    OUTPUT    DEBUG CONSOLE    TERMINAL                                          > Code + ∨ ⊡ 🗑 ∧ ×

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\my codes\web tech lab\assignment> cd "d:\my codes\web tech lab\assignment\" ; if ($?) { javac Q8other.java } ; if ($?) { java Q8other }
Enter first- 25
Enter diff- 5
The arithematic sequence is:
25,30,35,40,45,50,55,60,65,70
PS D:\my codes\web tech lab\assignment>
```

```java
// 10. Implement the concept of abstract class for the following:

import java.util.*;

abstract class Q10 {
  abstract int moneyconversion();

  static class rupeetodollar extends Q10 {
    int moneyconversion() {
      return 78;
    }
  }
```

```java
  static class rupeetoeuro extends Q10 {
    int moneyconversion() {
      return 85;
    }
  }

  public static void main(String args[]) {
    int x;
    System.out.println("Enter your amount in rupees:");
    Scanner sc = new Scanner(System.in);
    x = sc.nextInt();
    Q10 obj;
    obj = new rupeetodollar();
    System.out.println("Your amount in dollars is =" + (x /
obj.moneyconversion()));
    obj = new rupeetoeuro();
    System.out.println("Your amount in euro is =" + (x /
obj.moneyconversion()));
  }
}
```

<mark>OUTPUT-10</mark>

```
PROBLEMS 2    OUTPUT    DEBUG CONSOLE    TERMINAL                                                            > Code + ∨ □ 🗑 ∧ ×

Windows PowerShell
Copyright (C) Microsoft Corporation. All rights reserved.

Install the latest PowerShell for new features and improvements! https://aka.ms/PSWindows

PS D:\my codes\web tech lab\assignment> cd "d:\my codes\web tech lab\assignment\" ; if ($?) { javac Q10.java } ; if ($?) { java Q10 }
Enter your amount in rupees:
321
Your amount in dollars is =4
Your amount in euro is =3
PS D:\my codes\web tech lab\assignment> 
```