OBJECT ORIENTED PROGRAMMING WITH JAVA 8– LAB 1

Q1. Write a program to print the name of the user.

Program:

```
class Name
     {
  public static void main(String args[])
 {
    String userName="Anna";
    System.out.print("User name is" + userName);
}
}
```

Output:

```
E:\java notes>javac Name.java

E:\java notes>java Name
User name isAnna
```

Q2. Write a program for concatenating First name, Last name and display it. Enter the names as command line arguments.

Program:

```
class concatName
     {
       public static void main (String args[])
        {
         String firstName= args[0];
         String lastName= args[1];
         String FullName= firstName  + lastName;
         System.out.println("Full Name is " + FullName);
        }
     }
```

Output:

```
E:\java notes>javac concatName.java

E:\java notes>java concatName Anna Roy
Full Name isAnnaRoy
```

Q3.Write a program to calculate the Simple interest where principal, interest and time period are given as command line arguments.

(Simple Interest=P × r × n where P=Principal, r=Interest rate, n=Term of loan in years)

Program:

```
class SI
 {
    public static void main(String args[])
   {
     float principal = Float.parseFloat(args[0]);
    float interestRate= Float.parseFloat(args[1]);
    float time= Float.parseFloat(args[2]);
    float SimpleInterest=(principal * interestRate * time)/100;
    System.out.println("Simple Interest is : " + SimpleInterest);
   }
}
```

Output:

```
E:\java notes>java SI 500 2 3
Simple Interest is : 30.0
```

Q4. Write a program that averages the rain fall for three months, April, May, and June. Declare and initialize a variable to the rain fall for each month. Compute the average, and write out the results, in the following format:

Rainfall for April : 12

Rainfall for May : 14

Rainfall for June : 8

Average rainfall : 11.333333

PROGRAM:

```
class AvgRainfall
{
  public static void main(String args[])
  {
    int April = Integer.parseInt(arg[0]);
    int May = Integer.parseInt(arg[1]) ;
    int June = Integer.parseInt(arg[2]);
    float AverageRainfall = (April + May + June )/3;
    System.out.println(" Average Rainfall is : " + AverageRainfall);
 }
}
```

Output:

```
E:\java notes>java AvgRainfall 12 14 8
 Average Rainfall is : 11.0
```

Q5. Write a program to initialize two numbers, swap them and print.

```
class SwapNo
{
 public static void main(String args[])
  {
    int a = Integer.parseInt(args[0]);
    int b = Integer.parseInt(args[1]);
    int c;
    System.out.println("a = " +a);
    System.out.println("b = " +b);
    c=a;
    a=b;
    b=c;
   System.out.println("Values after swapping : ");
   System.out.println("a=" +a);
   System.out.println("b=" +b);
   }}
```

```
E:\java notes>java SwapNo 1 2
a = 1
b = 2
Values after swapping :
a=2
b=1
```

Q6. Write a program to convert a given Fahrenheit value into Celsius value

(C = (F – 32) * 5 / 9).

Program:

```
class ConvFC
    {
      public static void main( String args[])
       {
        double Fahrenheit= Double.parseDouble(args[0]);
        double Celsius =(Fahrenheit - 32) * 5/9 ;
        System.out.println("Fahrenheit in Celsius is : " + Celsius);
       }
    }
```

OUTPUT:

```
E:\java notes>java ConvFC 650
Fahrenheit in Celsius is : 343.3333333333333
```

Q7. Write a program to calculate the perimeter of a rectangle where length and breadth are given as command line arguments.

(P = 2(l + w)).

Program:

```
class RectPerimeter
    {
       public static void main(String args[])
        {
          int Length=Integer.parseInt(args[0]);
          int Breadth=Integer.parseInt(args[1]);
          int Perimeter=2*(Length + Breadth);
          System.out.println("Perimeter of the Rectangle is : " +Perimeter);
         }
     }
```

Output:

```
E:\java notes>java RectPerimeter 10 20
Perimeter of the Rectangle is : 60
```