Q 1   Write a Java program to print 'Hello' on screen and then print your name on a separate line.

Soln. package simpleprogram;

public class Helloworld {

 public static void main(String[] args)
 {
  System.out.println("Hello\nKirtika Singh!");
 }

}

Q 2 Wap to swap two numbers

Soln. import java.util.Scanner;
class Swap
{
   public static void main(String[] args)
   {
     int x, y, t;
     Scanner sc = new Scanner(System.in);
     System.out.println("Enter the value of X and Y");
     x = sc.nextInt();
     y = sc.nextInt();
     System.out.println("before swapping numbers: "+x +" "+ y);
     t = x;
     x = y;
     y = t;
     System.out.println("After swapping: "+x +"   " + y);
     System.out.println( );
   }
}

Q 3 How to swap two numbers without using a third variable?

Soln. import java.util.*;
class Swap
{
   public static void main(String a[])
   {
     System.out.println("Enter the value of x and y");
     Scanner sc = new Scanner(System.in);
     int x = sc.nextInt();
     int y = sc.nextInt();
     System.out.println("before swapping numbers: "+x +" "+ y);
     x = x + y;
     y = x - y;
     x = x - y;
     System.out.println("After swapping: "+x +" " + y);
   }
}

Q 4 wap to check is number is evenor odd.

Soln. import java.util.Scanner;

```java
public class EvenOdd
{
    public static void main(String[] args)
    {
        Scanner reader = new Scanner(System.in);

        System.out.print("Enter a number: ");
        int num = reader.nextInt();

        if(num % 2 == 0)
            System.out.println(num + " is even");
        else
            System.out.println(num + " is odd");
    }
}
```

Q 5 wap to print fibonaci series .

Soln. import java.util.Scanner;

```java
public class FibonacciSeries
{
    public static void main(String args[]) {

        System.out.println("Enter the term to be printed");
        Scanner ob = new Scanner(System.in);
        int ch = ob.nextInt();
        System.out.println("The" + ch + " terms of fibanocci numbers are-");
        int a, b, s, n;
        a = b = 1;
        for (n = 1; n <= ch; n++) {
            System.out.println(a);
            s = a + b;
            a = b;
            b = s;
        }
    }
}
```

Q 6 wap to check value is within range or not

Soln.
```java
public static boolean between(int i, int minValueInclusive, int maxValueInclusive)
{
    if (i >= minValueInclusive && i <= maxValueInclusive)
        return true;
    else
        return false;
}
```

Q 7 A school has following rules for grading system:
 a. Below 25 - F
 b. 25 to 45 - E
 c. 45 to 50 - D
 d. 50 to 60 - C
 e. 60 to 80 - B
 f. Above 80 - A
 Ask user to enter marks and print the corresponding grade

Soln. import java.util.Scanner;

```java
   class Grades
{
 public static void main(String[] args)
{
   Scanner s = new Scanner(System.in);
   System.out.println("Enter your marks");
   int x = s.nextInt();
   if(x<25)
{
    System.out.println("F");
   }
   else if((x>=25)&&(x<45))
{
    System.out.println("E");
   }
   else if((x>=45)&&(x<50)){
    System.out.println("D");
   }
   else if((x>=50)&&(x<60))
{
    System.out.println("C");
   }
   else if((x>=60)&&(x<80))
{
    System.out.println("B");
   }
   else if((x>=80)&&(x<=100))
{
    System.out.println("A");
   }
   else{
    System.out.println("Not correct marks");
   }
 }
}
```

Q 8 Take values of length and breadth of a rectangle from user and check if it is square or not.
 hint is length==breath square else rectangle

Soln.import java.util.*;

class CheckSquare

```java
{
public static void main(String args[])
{
Scanner sc = new Scanner(System.in);
System.out.print("Enter the length: ");
double l=sc.nextDouble();
System.out.println("Enter the breadth: ");
double b=sc.nextDouble();
if(l==b)
System.out.println("Square...");
else
System.out.println("Not a Square...");
}
}
```

Q 9 check and print greater number among two numbers

Soln.
```java
import java.util.*;
public class Main
{
public static void main(String[] args)
{
Scanner sc = new Scanner(System.in);
int num1,num2;
num1 = sc.nextInt();
num2 = sc.nextInt();
if(num1 > num2)
System.out.print(num1 + " is greater");
else
System.out.print(num2 + " is greater");
}
}
```

Q 10 check and print greater number among three numbers

Soln.
```java
public class Largest {

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

```
        double n1 = -4.5, n2 = 3.9, n3 = 2.5;

        if( n1 >= n2 && n1 >= n3)
            System.out.println(n1 + " is the largest number.");

        else if (n2 >= n1 && n2 >= n3)
            System.out.println(n2 + " is the largest number.");

        else
            System.out.println(n3 + " is the largest number.");
    }
}
```

Q 11 Write a program to print absolute vlaue of a number entered by user. E.g.-
 INPUT: 1   OUTPUT: 1
 INPUT: -1   OUTPUT: 1

Soln. class AbsoluteValue

```
{

public static void findAbsolute(int N)
{
   if (N < 0)
   {
     N = (-1) * N;
   }

   System.out.println("%d ", N);
}
public static void main(String[] args)
{

   int N = -12;
   findAbsolute(N);
}
}
```

Q 12 check alphabet is in lower case (a-z)(65-90) or upper case (A-Z)(97-122)

Soln. class LowerUpper

```
{

   static void check(char ch)
   {

     if (ch >= 'A' && ch <= 'Z')
        System.out.println("\n" + ch +
            " is an UpperCase character");

     else if (ch >= 'a' && ch <= 'z')
        System.out.println("\n" + ch +
            " is an LowerCase character" );
```

```
        else
            System.out.println("\n" + ch +
                " is not an aplhabetic character" );
    }
```

Q 13 print the expression and see the output
 If
 x = 2
 y = 5
 z = 0
 then find values of the following expressions:
 a. x == 2
 b. x != 5
 c. x != 5 && y >= 5
 d. z != 0 || x == 2
 e. !(y < 10)

Soln.

Q 14 Check if a given number is leap year or not

Soln. import java.util.Scanner;
public class LeapYear
{
    public static void main(String[] args)
    {
        int year;
        System.out.println("Enter an Year :: ");
        Scanner sc = new Scanner(System.in);
        year = sc.nextInt();

        if (((year % 4 == 0) && (year % 100!= 0)) || (year%400 == 0))
            System.out.println("Specified year is a leap year");
        else
            System.out.println("Specified year is not a leap year");
    }
}

Q 15 wap to calculate simple interest Simple Interest = (P x T x R)/100

Soln. public class Main
 {
   public static void main (String args[])
    {
 float p, r, t, si; // principal amount, rate, time and simple interest respectively
        p = 13000; r = 12; t = 2;
         si = (p*r*t)/100;
          System.out.println("Simple Interest is: " +si);
    }
}

Q 16 Wap to print perimeter of rectangle.

Soln. public class Main
```
{
  public static void main (String args[])
    {    float a ,b, c, d, perimeter;
            a=c= 5;
            b=d=4;
            perimeter  = 2*(a+b);
        System.out.println("Perimeter of Rectangle is: "+perimeter);
    }
}
```

Q 17 Java Program to Check Whether the Character is Vowel or Consonant

Soln. import java.util.*;
```
public class VowelOrConsonant
{

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

      System.out.println("Enter a character");
      char ch = s.next().charAt(0);
      if(ch == 'a' || ch == 'e' || ch == 'i' || ch == 'o' || ch == 'u' )
         System.out.println(ch + " is vowel");
      else
         System.out.println(ch + " is consonant");
    }
}
```