Assignment No 4

1. Write a program to print numbers from 1 to 10

Program –

```
package com.edubridge.assignment4;
public class OneToTen
{
	public static void main(String[] args)
	{
		// TODO Auto-generated method stub
		for(int i=1;i<=10;i++)
		{
			System.out.println(i);
		}
	}
}
```

2. Write a program to calculate the sum of first 10 natural.

Program –

```
package com.edubridge.assignment4;
public class SumOfTen
{
	public static void main(String[] args)
	{
		// TODO Auto-generated method stub
		int i,sum=0;
		for(i=1; i<=10;i++)
		{
			sum = sum+i;
		}
		System.out.println("Sum is "+sum);
	}

}
```

3. Write a program that prompts the user to input a positive integer. It should then print the multiplication table of that number.

Program –

```
package com.edubridge.assignment4;
import java.util.Scanner;
public class Multiplication
{
	public static void main(String[] args)
	{
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.println("Enter Any Number");
```

```
            int n = sc.nextInt();
            for(int i=1;i<=10;i++)
            {
                  System.out.println("Multiplication Table of " +n+ "
is "+n*i);
            }
      }

}
```

4. Write a program to find the factorial value of any number entered through the keyboard.

Program –

```
package com.edubridge.assignment4;

import java.util.Scanner;
public class Factorial
{
      public static void main(String[] args)
      {
            // TODO Auto-generated method stub
            int i=1, n;
            int fact =1;
            Scanner sc = new Scanner(System.in);
            System.out.println("Enter Any Number");
            n = sc.nextInt();

            while(i<=n)
            {
                  fact=fact*i;  //calculating factorial of a number
                  i++;
            }
                  System.out.println("Factorial of "+n+" is " +fact);

      }
}
```

5. Two numbers are entered through the keyboard. Write a program to find the value of one number raised to the power of another. (Do not use Java builtin method)

Program –

```
package com.edubridge.assignment4;
import java.util.Scanner;
public class Power
{
      public static void main(String[] args)
      {
            // TODO Auto-generated method stub
            Scanner scanner = new Scanner(System.in);
```

```
            System.out.println("Enter a base : ");
            int num = scanner.nextInt();
            System.out.println("Enter a exponential : ");
            int pow = scanner.nextInt();
            int result=1;
            for(int i=1; i<=pow; i++)
            {
            result = result*num;
            }
            System.out.println("The result when exponential of a
number is : "
            +result);
      }
}
```

6. Write a program that prompts the user to input an integer and then outputs the number with the digits reversed. For example, if the input is 12345, the output should be 54321.

Program –

```
package com.edubridge.assignment4;
import java.util.Scanner;
public class ReverseNo
{
      public static void main(String[] args)
      {
            // TODO Auto-generated method stub
            Scanner sc = new Scanner(System.in);
            int n;
            System.out.println("Enter Number: ");
            n = sc.nextInt();
            int temp=0, rem;
            while(n>0)
            {
                  rem = n%10;
                  temp = (temp*10)+rem;
                  n=n/10;
            }
            System.out.println("Reverser Numbers are: " +temp);
      }

}
```

7. Write a program that reads a set of integers, and then prints the sum of the even and odd integers.

Program –

```
//program that reads a set of integers, and then prints the sum of
the even and odd integers.
package com.edubridge.assignment4;
import java.util.Scanner;
```

```
public class EvenOddSum
	{
		public static void main(String[] args)
		{
			Scanner sc = new Scanner(System.in);
			System.out.print("Enter any Number : ");
			int number = sc.nextInt();
			int m, even=0, odd=0;
			for(int i=1; i<=number; i++)
			{
				System.out.println("Enter the number " +i);
				m = sc.nextInt();
				if(m%2==0)
				{
					even = even + m;
				}
				else
				{
					odd = odd + m;
				}
			}
			System.out.println(" Sum of Even Numbers  " + even);
			System.out.println(" Sum of Odd Numbers  " + odd);
		}
}
```

8. Write a program that prompts the user to input a positive integer. It should then output a message indicating whether the number is a prime number.

Program –

```
package com.edubridge.assignment4;
import java.util.Scanner;
public class PrimeNo
{
	public static void main(String[] args)
	{
		// TODO Auto-generated method stub
		Scanner sc = new Scanner(System.in);
		System.out.print("Enter any Number : ");
		int num = sc.nextInt();
		int count=0;
		for(int i=2;i<num-1;i++)
		{
			if(num%i==0)
			{
				count=count+1;
			}
		}
			if(count==0)
			{
				System.out.println(num+ " is prime");
			}
			else
			{
```

```
                        System.out.println(num+ " is not prime");
                }
        }
}
```

9. Write a program to calculate HCF of Two given number.

Program –

```
package com.edubridge.assignment4;
import java.util.Scanner;

public class CalculateHcf
{
        public static void main(String[] args)
        {
                // TODO Auto-generated method stub
                Scanner sc = new Scanner(System.in);
                System.out.print("Enter Two Number : ");
                int num = sc.nextInt();
                int num2 = sc.nextInt();
                int temp = 0;
                for(int i=1;i<=num;i++)
                {
                        if(num%i==0 && num2%i==0)
                        {
                                temp=i;
                        }
                }
                System.out.print("HCF is "+temp);
        }

}
```

10. Write a do-while loop that asks the user to enter two numbers. The numbers should be added and the sum displayed. The loop should ask the user whether he or she wishes to perform the operation again. If so, the loop should repeat; otherwise it should terminate.

Program –

```
package com.edubridge.practiceprograms;
import java.util.Scanner;
public class TwoNo
{
        public static void main(String[] args)
        {
                // TODO Auto-generated method stub
                Scanner sc = new Scanner(System.in);
                char ch;
                do
                {
                        System.out.println("1. Perform Addition\n" + "2. Exit\n");
                        int a,b, Sum;
                        int option = sc.nextInt();
                        switch(option)
                        {
```

```
                case 1 :
                        System.out.println("Enter Two Numbers ");
                        a = sc.nextInt();
                        b = sc.nextInt();
                        Sum = a+b;
                        System.out.println("Sum of Two Number "+Sum);
                        break;

                case 2 :
                        System.exit(0);
                        break;
                }
                System.out.println("Do Sum Again");
                System.out.println("If Yes enter Y or If No enter N");
                ch = sc.next().charAt(0);
            }while(ch=='y' || ch=='Y');
        }
}
```

11. Write a program to enter the numbers till the user wants and at the end it should display the count of positive, negative and zeros entered.

Program –

```
package com.edubridge.assignment4;
import java.util.Scanner;

public class Pro11
{
      public static void main(String[] args)
      {
            // TODO Auto-generated method stub
            Scanner sc = new Scanner(System.in);
            int num, pos=0, neg=0,zero=0;
            char choice;
            do
            {
                  System.out.println("Enter the number ");
                  num = sc.nextInt();
                  if(num > 0)
                  {
                        pos++;
                  }
                  else if(num < 0)
                  {
                        neg++;
                  }
                  else
                  {
                        zero++;
                  }
                  System.out.print("Do you want to continue y/n? ");
                  choice = sc.next().charAt(0);
                  }while(choice=='y' || choice == 'Y');
                  System.out.println("Positive numbers: " + pos);
                  System.out.println("Negative numbers: " + neg);
```

```
                System.out.println("Zero numbers: " + zero);
            }
        }
```

12. Write a program to enter the numbers till the user wants and at the end the program should display the largest and smallest numbers entered.

Program –

```
package com.edubridge.assignment4;
import java.util.Scanner;

public class LargeSmall
{
    public static void main(String[] args)
    {
        // TODO Auto-generated method stub
        Scanner sc = new Scanner(System.in);
        int num, max=0, min=0;
        char choice;
        do
        {
            System.out.println("Enter the number ");
            num = sc.nextInt();
            if(num > max)
            {
                max = num;
            }
            if(num<min)
            {
                min = num;
            }
            System.out.print("Do you want to continue y/n? ");
            choice = sc.next().charAt(0);
            }while(choice=='y' || choice == 'Y');
            System.out.println("Largest numbers: " + max);
            System.out.println("Smallest numbers: " + min);
    }

}
```