JAVA- ASSIGNMENT

PARVATHY VIJAYAN
AM.SC.U3CSC20053

1. Write a java program to list the factorial of the numbers from 1 to 10. To calculate the factorial, use while loop.

Q1 - Notepad

File Edit View

```
class Q1
{
     public static void main(string[]args)
     {
          int i=1;
          int f=1;
          while(i<=10)
          {
               f=f*i;
               System.out.println("factorial : "+f);
               i++;
          }
     }
}
```

```
C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q1
Factorial : 1
Factorial : 2
Factorial : 6
Factorial : 24
Factorial : 120
Factorial : 720
Factorial : 5040
Factorial : 40320
Factorial : 362880
Factorial : 3628800
```

2. Write a java program to Generate the Fibonacci series 0 1 1 2 3 5 8…..n (use while loop and read n).

Q2 - Notepad

File Edit View

```
import java.util.scanner;
class Q2
{
     public static void main(String[]args)
     {
     Scanner ob = new Scanner(System.in);
        int num =ob.nextInt();//5
        int a=0,b=1,c,i;
        int count=0;
     if(num==1)
          System.out.println(a);
     else if (num==2){
          System.out.println(a);System.out.println(b);}
     else{
        for(i=2;i<num;i++)//i=4
        {
          if(count==0){
              System.out.println(a);System.out.println(b);}
           c=a+b;
           System.out.println(c);
                 a=b;
                 b=c;
           count++;

        }}
}}
```

```
C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q2
6
0
1
1
2
3
5
```

3. Write a java program reverse a number.

Q3 - Notepad

File Edit View

```
import java.util.Scanner;
class Q3
{
     public static void main(String[]args)
     {
          Scanner ob = new Scanner(System.in);
          int num = ob.nextInt();
          int re=0,rev=0;
          while(num!=0)
          {
               re=num%10;
               rev= (rev*10)+re;
               num=num/10;
          }
          System.out.println(rev);
     }
}
```

```
C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q3
3456
6543
```

4. Write a java program Check whether the given number is a Krishnamurti number(Krishnamurthy Number: It is a number which is equal to the sum of the factorials of all its digits. For example: 145 = 1! + 4! + 5! = 1 + 24 + 120 = 145).

Q4 - Notepad

File Edit View

```
import java.util.Scanner;
class Q4
{
     public static void main(String[]args)
     {
          Scanner ob = new Scanner(System.in);
          int num = ob.nextInt();
          int temp = num ;
          int re=0,sum=0;
          while(num!=0)
          {
               int f = 1;
               re = num % 10;
               while(re != 0)
               {
                    f = f*re;
                    re--;
               }
               sum = f+sum;
               num=num/10;
          }
          if(sum==temp)
               System.out.println(temp+" is a Krishnamurthy Number");
          else
               System.out.println(temp+" is not a Krishnamurthy Number");
     }
}
```

```
C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q4
5
5 is not a Krishnamurthy Number

C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q4
4332
4332 is not a Krishnamurthy Number

C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q4
145
145 is a Krishnamurthy Number
```

5. Write a program to check whether the given 3 digit number is an Armstrong number. (Use while Eg:153, 370, 371, 407).

Q5 - Notepad

File Edit View

```
import java.util.Scanner;
import java.lang.Math;
class Q5{
     public static void main(String [] args)
     {
          Scanner ob = new Scanner(System.in);
          System.out.println("Enter any number : ");
          int num=ob.nextInt();
          System.out.println("Enter the number of digits: ");
          int count =ob.nextInt();

          int temp = num,re,sum=0;
          while(num!=0)
            {
                re=num%10;
                sum+=(Math.pow(re,count));
                num=num/10;
            }
            if(temp==sum)
                System.out.println("YES,it is an Armstrong number.");
            else
                System.out.println("It is not an Armstrong number.");
     }
}
```

```
C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q5
Enter any number :
134
Enter the number of digits:
3
It is not an Armstrong number.

C:\Users\paruv\OneDrive - Amrita university\Desktop\java_21-04-2022>java Q5
Enter any number :
407
Enter the number of digits:
3
YES,it is an Armstrong number.
```