techno india university

WEST BENGAL

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BCS3A

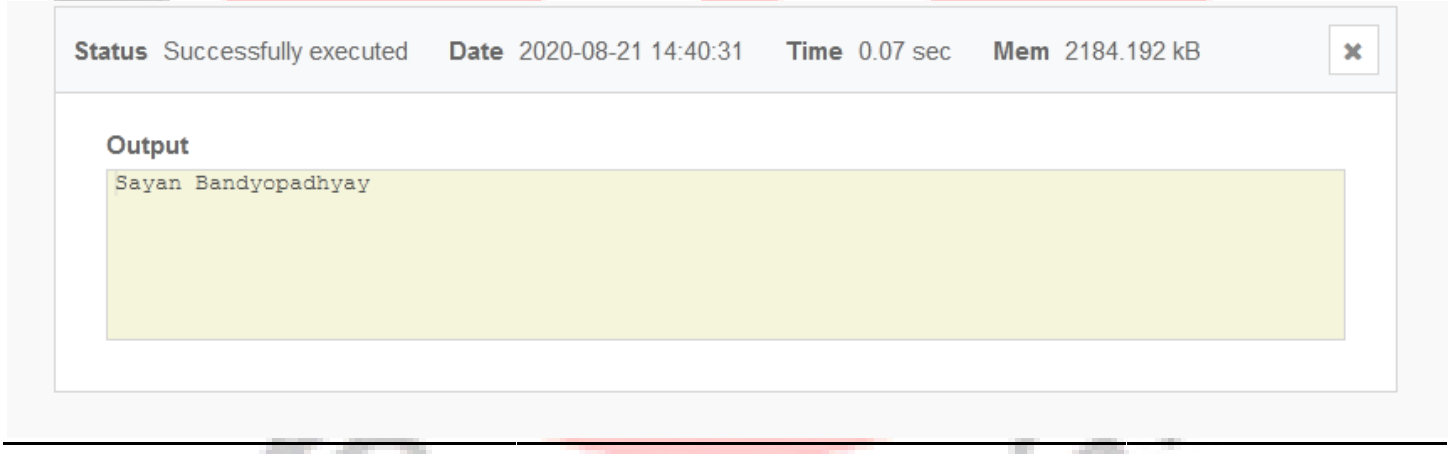
OOP JAVA ASSIGNMENT 1

1. . Write a program to print your name.\

Ans]

```
import java.lang.*;
class Q1
{
public static void main( String args[])
{
System.out.println("Ratul mukherjee");
}
}
```

OUTPUT (IDE Used: https://www.codechef.com/ide)



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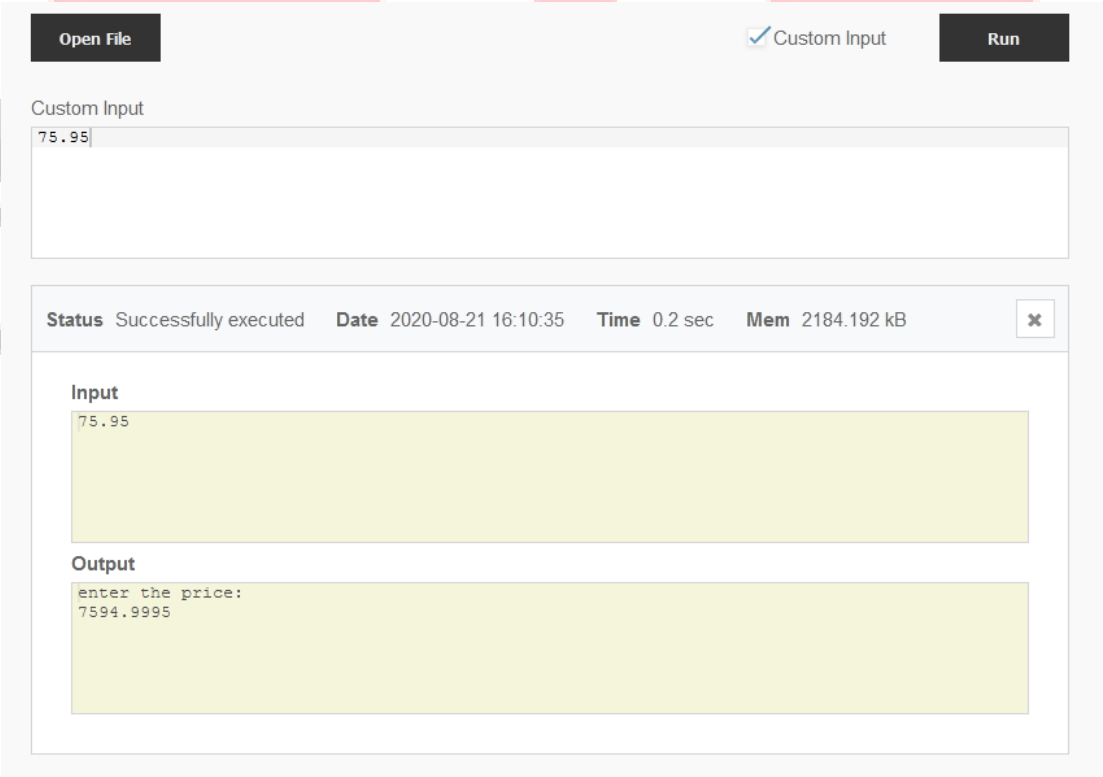
2. Write a program to read the price of an item in the decimal form (like 75.95) and print the output in paise (like 7595 paise).

ANS]

```
import java.lang.*;
import java.util.Scanner;
class Q2
{
```

```
public static void main( String args[])
{
float rs,paise;
System.out.println("enter the price:");
Scanner sc=new Scanner(System.in);
rs=sc.nextFloat();
paise=rs*100;
System.out.println(+paise);
}
}
```

OUTPUT: (IDE used: https://www.codechef.com/ide)

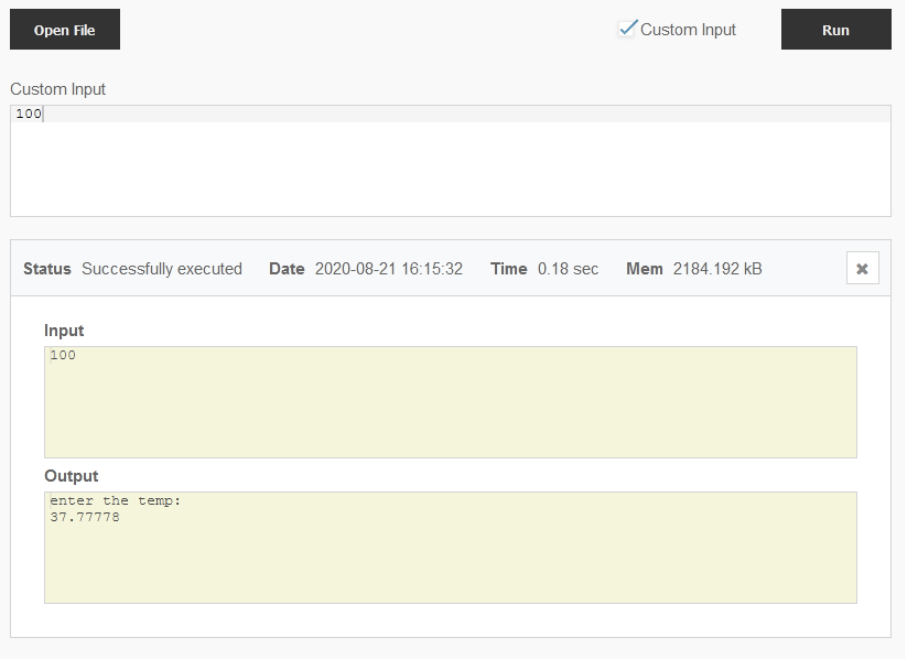


3. Write a program to convert the given temperature in Fahrenheit to Celsius using the following conversion formula: C = (F-32)/1.8

ANS]

```
 import java.lang.*;
import java.util.Scanner;
class Q3
{
public static void main( String args[])
{
float F,C;
System.out.println("enter the temp:");
Scanner sc=new Scanner(System.in);
F=sc.nextFloat();
C=(F-32)/1.8f;
System.out.println(+C);
}
}
```

OUTPUT: (IDE used: https://www.codechef.com/ide)



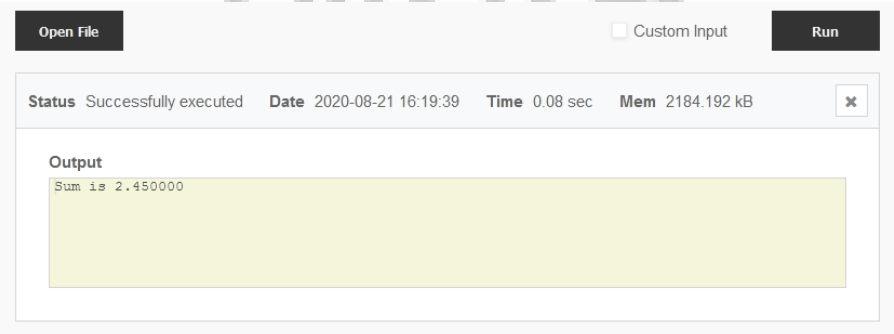
4. Write a program to determine sum of the following series for given value of n: (1 + 1/2 + 1/3

+ …… + 1/n2). Print the result up to two decimal places.

ANS]

```
import java.io.*;

class Q4 {


        static double sum(int n)

        {

        double i, s = 0.0;

        for (i = 1; i <= n; i++)

                s = s + 1/i;

        return s;

        }


        public static void main(String args[])

        {

                int n = 5;

                System.out.printf("Sum is %f", sum(n));


        }

}
```

OUTPUT: (IDE used: https://www.codechef.com/ide)



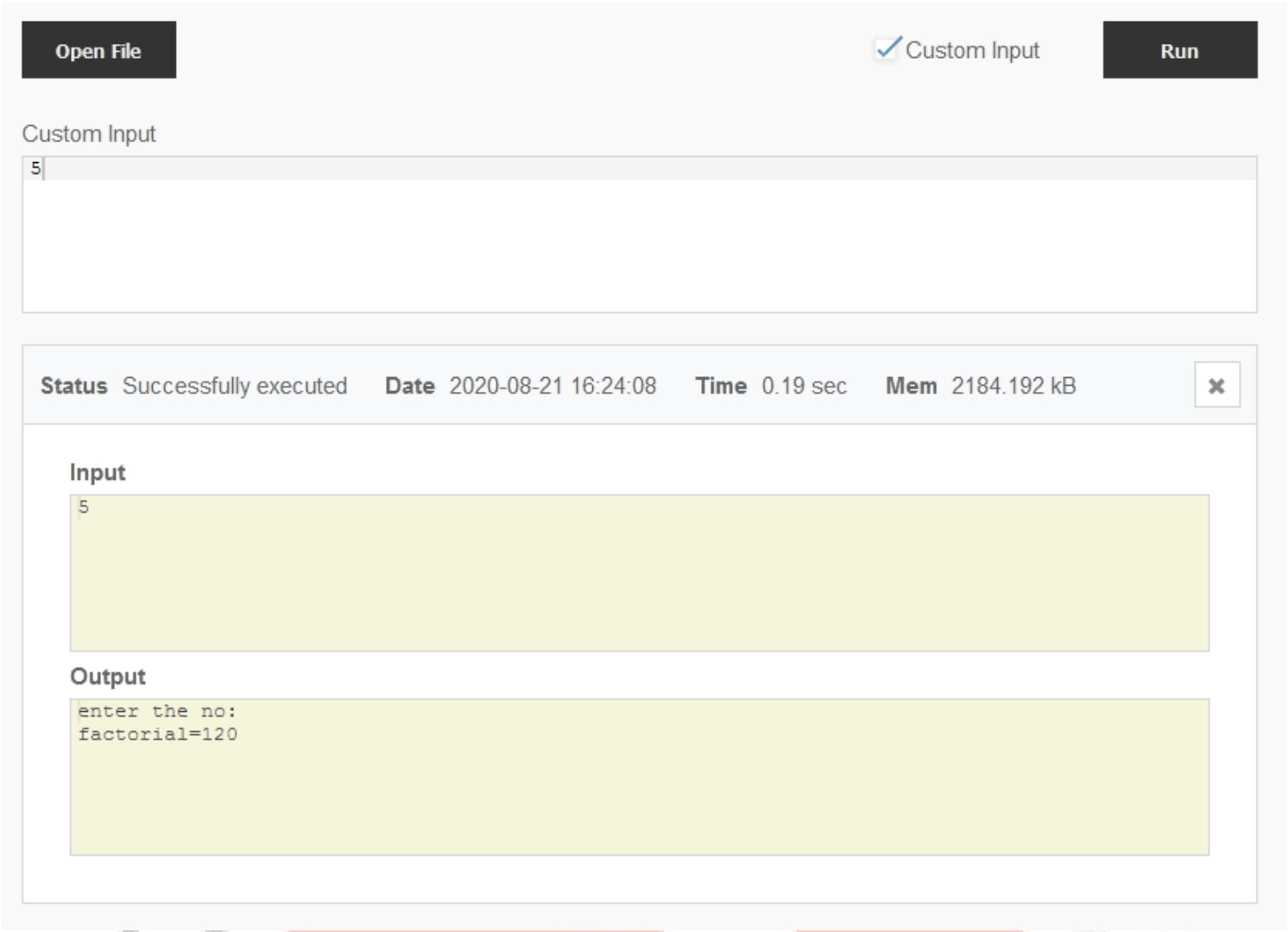
5. Write a program to find the factorial of a given integer number using recursion (take input

using command-line argument).

ANS]

```
import java.lang.*;
import java.util.Scanner;
class Q5
{
static int factorial(int n)
{
   if(n==0)
          return 1;
          else
           return (n*factorial(n-1));

}
          public static void main( String args[])
{
int fact, n;
System.out.println("enter the no:");
Scanner sc=new Scanner(System.in);
n=sc.nextInt();
fact=factorial(n);
System.out.println("factorial="+fact);
}
}
```

OUTPUT: (IDE used: https://www.codechef.com/ide)



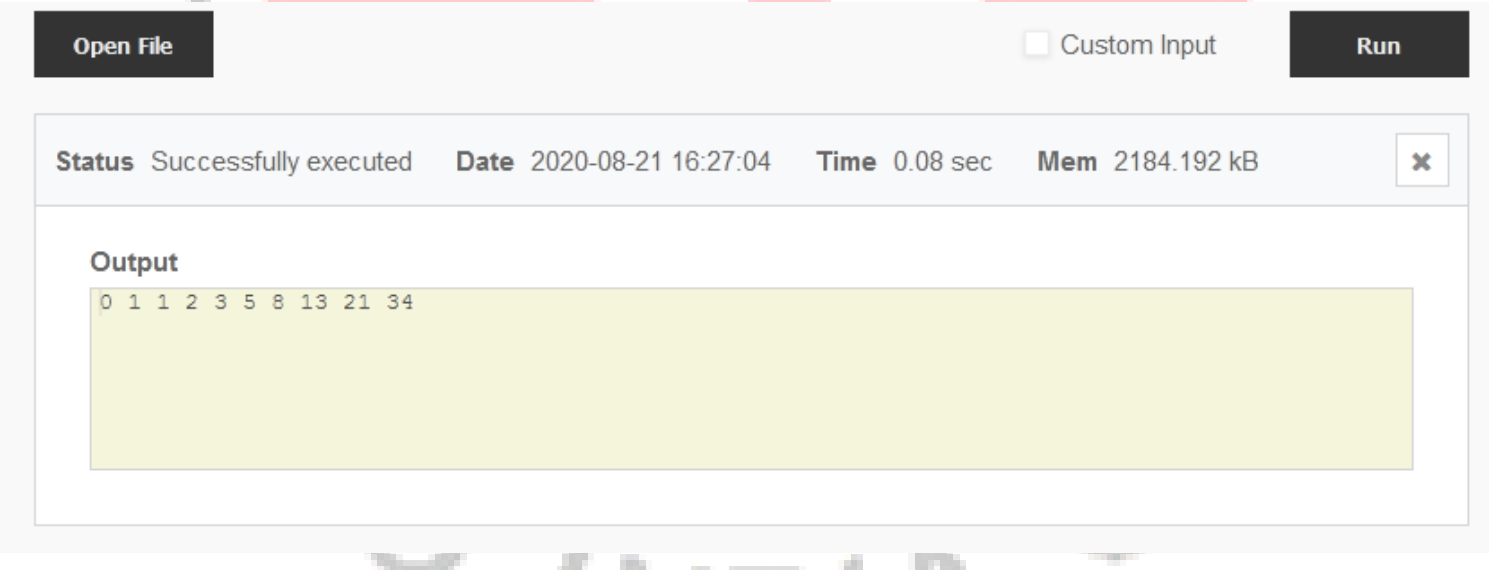
6. Write a program to show Fibonacci series up to n-th terms using recursion

ANS]

```
class Q6{
 static int n1=0,n2=1,n3=0;
 static void printFibonacci(int count){
    if(count>0){
         n3 = n1 + n2;
         n1 = n2;
         n2 = n3;
```

```
        System.out.print(" "+n3);
        printFibonacci(count-1);
    }
 }
 public static void main(String args[]){
  int count=10;
  System.out.print(n1+" "+n2);
  printFibonacci(count-2);
 }
}
```

OUTPUT: (IDE used: https://www.codechef.com/ide)



7. **Write a Program of Sum of Series (1+x+x2+x3+x4+..... up to n-th terms).**

ANS]

```
import java.lang.*;
import java.util.Scanner;
import java.lang.Math;
class Q7
```

```
{
public static void main( String args[])
{
double n,x,sum=0;
System.out.println("enter the values for X & n:");
Scanner sc=new Scanner(System.in);
n=sc.nextDouble();
x=sc.nextDouble();
for (int i=0;i<=n;i++)
sum=sum+Math.pow(x,i);
System.out.println(sum);
}
}
```

OUTPUT: (IDE used: https://www.codechef.com/ide)