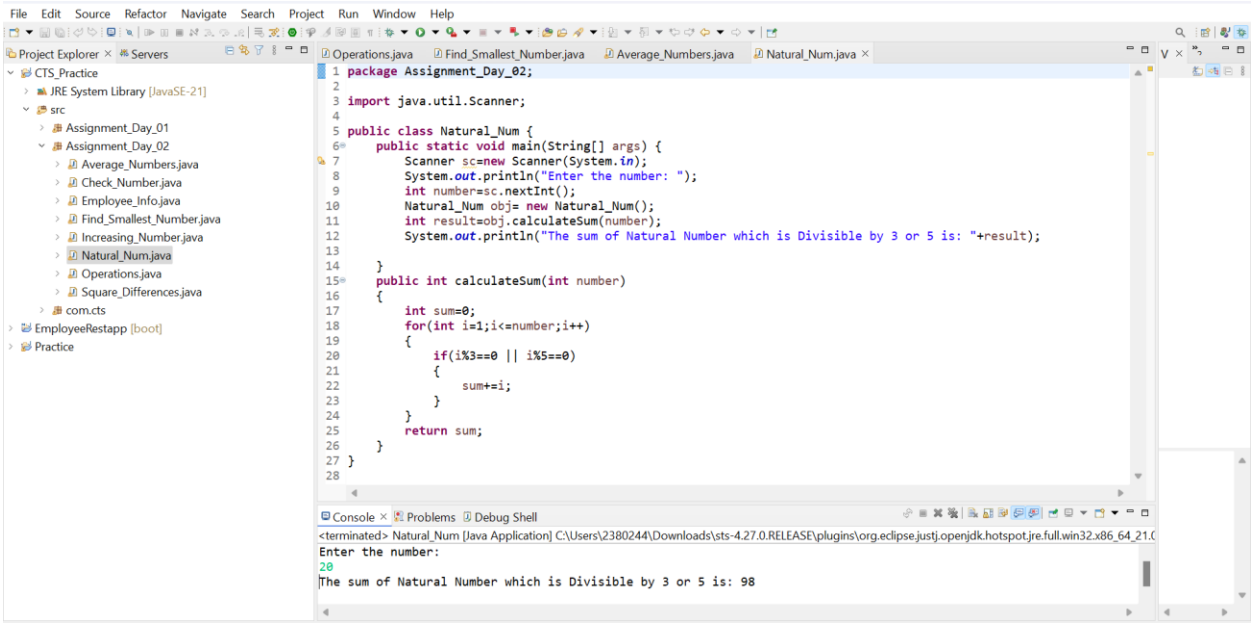
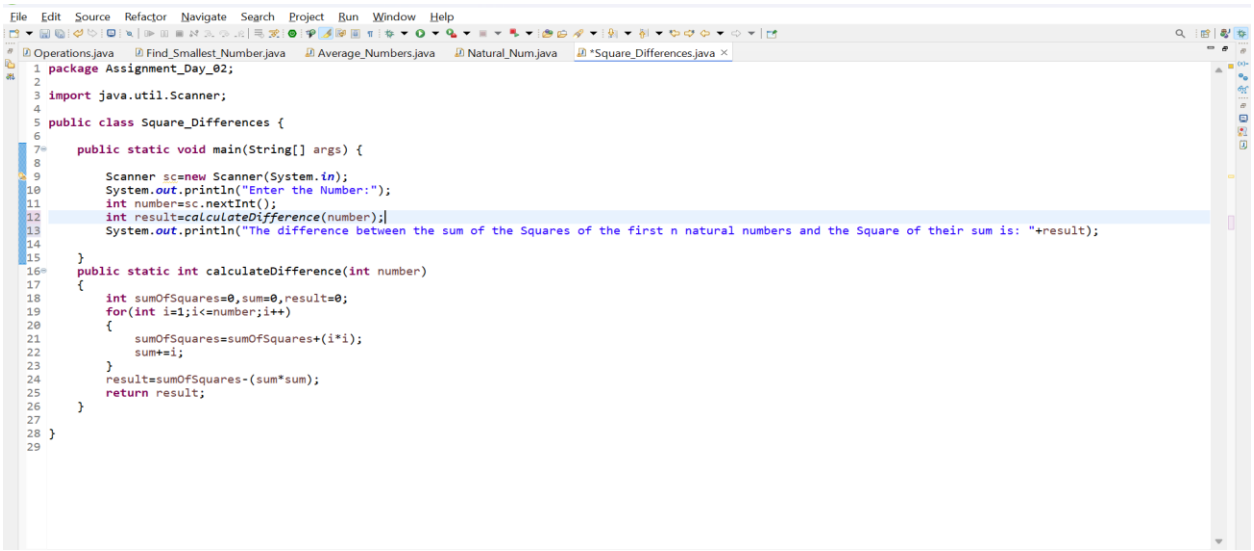
1. Create a class with a method which can calculate the sum of first n natural numbers which are divisible by 3 or 5.



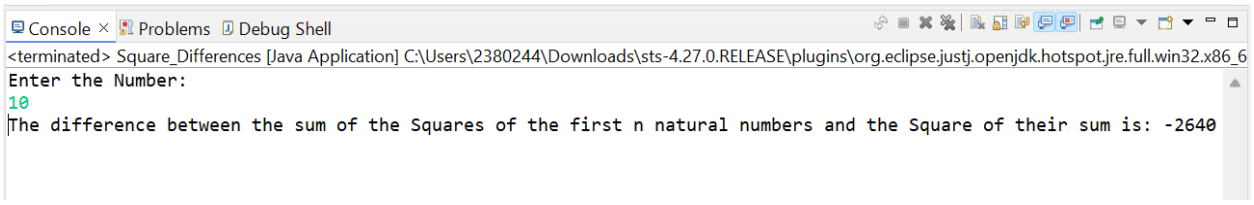
```
package Assignment_Day_02;

import java.util.Scanner;

public class Natural_Num {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the number: ");
        int number=sc.nextInt();
        Natural_Num obj= new Natural_Num();
        int result=obj.calculateSum(number);
        System.out.println("The sum of Natural Number which is Divisible by 3 or 5 is: "+result);

    }
    public int calculateSum(int number)
    {
        int sum=0;
        for(int i=1;i<=number;i++)
        {
            if(i%3==0 || i%5==0)
            {
                sum+=i;
            }
        }
        return sum;
    }
}
```

```
Enter the number:
20
The sum of Natural Number which is Divisible by 3 or 5 is: 98
```

2. Create a class with a method to find the difference between the sum of the squares and the square of the sum of the first n natural numbers.



```
package Assignment_Day_02;

import java.util.Scanner;

public class Square_Differences {

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the Number:");
        int number=sc.nextInt();
        int result=calculateDifference(number);
        System.out.println("The difference between the sum of the Squares of the first n natural numbers and the Square of their sum is: "+result);

    }
    public static int calculateDifference(int number)
    {
        int sumOfSquares=0,sum=0,result=0;
        for(int i=1;i<=number;i++)
        {
            sumOfSquares=sumOfSquares+(i*i);
            sum+=i;
        }
        result=sumOfSquares-(sum*sum);
        return result;
    }

}
```



```
Enter the Number:
10
The difference between the sum of the Squares of the first n natural numbers and the Square of their sum is: -2640
```

3. Create a method to check if a number is an increasing number.

```java
package Assignment_Day_02;

import java.util.Scanner;

public class Increasing_Number {

    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the Number:");
        int number=sc.nextInt();
        boolean result=checkNumber(number);
        if(result)
        {
            System.out.println(number+" is an increasing number");
        }
        else {
            System.out.println(number+" is not an increasing number");
        }

    }
    public static boolean checkNumber(int number)
    {
        while(number>0)
        {
            int number1=number%10;
            number/=10;
            int number2=number%10;

            if(number1<number2)
            {
                return false;
            }
        }
        return true;
    }
}
```

```
Console × Problems Debug Shell
<terminated> Increasing_Number [Java Application]
Enter the Number:
134278
134278 is not an increasing number
```

```
Console × Problems Debug Shell
<terminated> Increasing_Number [Java Application]
Enter the Number:
134468
134468 is an increasing number
```

4. Create a method to check if a number is a power of two or not.

```java
package Assignment_Day_02;

import java.util.Scanner;
public class Check_Number {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the Number: ");
        int number=sc.nextInt();
        Check_Number obj=new Check_Number();
        boolean result=obj.checkNumber(number);
        if(result)
            System.out.println(number+" is a Power of 2");
        else
            System.out.println(number+" is not a Power of 2");
    }
    public boolean checkNumber(int number)
    {
        int i=1,res=0;
        while(true)
        {
            int j=0,sum=1;
            while(j<i)
            {
                sum*=2;
                j++;
            }
            i++;
            if(sum>=number)
            {
                res=sum;
                break;
            }
        }
        if(res==number)
            return true;
        else
            return false;
    }
}
```

```
Console × Problems Debug Shell
<terminated> Check_Number [Java Application]
Enter the Number:
256
256 is a Power of 2
```

```
Console × Problems Debug Shell
<terminated> Check_Number [Java Application]
Enter the Number:
124
124 is not a Power of 2
```

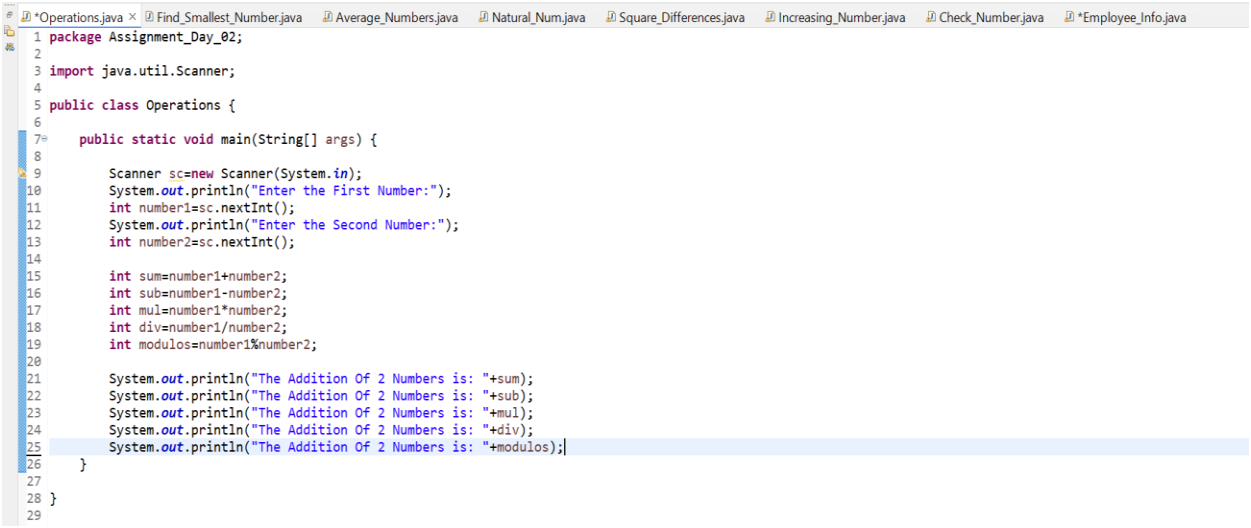
5. Take Employee Info like empid, empname, empsal, empAdd, empGender, empEmail and display .

Operations.java | Find_Smallest_Number.java | Average_Numbers.java | Natural_Num.java | Square_Differences.java | Increasing_Number.java | Check_Number.java | *Employee_Info.java

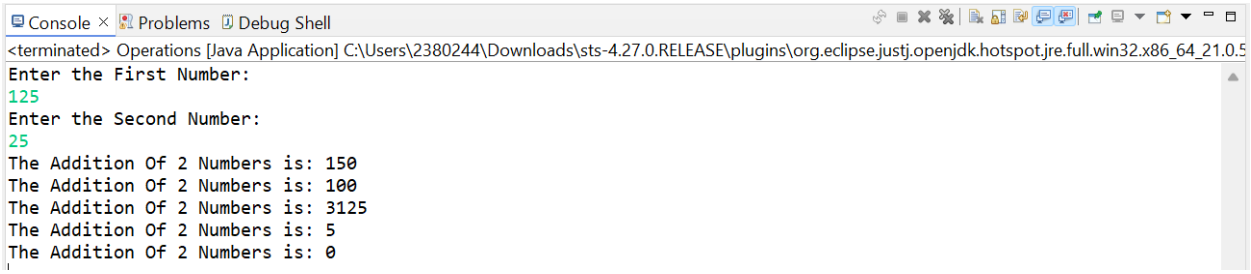
```java
package Assignment_Day_02;

import java.util.Scanner;

public class Employee_Info {

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the Employee Id: ");
        int empId=sc.nextInt();
        sc.nextLine();
        System.out.println("Enter the Employee Name: ");
        String empName=sc.nextLine();
        System.out.println("Enter the Employee's Salary: ");
        double empSalary=sc.nextDouble();
        sc.nextLine();
        System.out.println("Enter the Employee Address: ");
        String empAdd=sc.nextLine();
        System.out.println("Enter the Employee Gender (M/F): ");
        char empGender=sc.next().charAt(0);
        sc.nextLine();
        System.out.println("Enter the Employee's Email: ");
        String email=sc.nextLine();

        System.out.println("================================================================================");
        System.out.println("Employee's Id is: "+empId);
        System.out.println("Employee's Name is: "+empName.toUpperCase());
        System.out.println("Employee's Salary is: "+empSalary);
        System.out.println("Employee's Address is: "+empAdd);
        System.out.println("Employee's Gender is: "+empGender);
        System.out.println("Employee's Email is: "+email);
    }
}

```

```
Console × Problems Debug Shell
<terminated> Employee_Info [Java Application] C:\Users\2380244\Downloads\sts-4.27.0.RELEASE\plugins\org.eclipse.justj.openjdk.hotspot.jre.full.win32.x86_64_21
Enter the Employee Id:
2380244
Enter the Employee Name:
Sanjay P
Enter the Employee's Salary:
18118
Enter the Employee Address:
Salem, TamilNadu
Enter the Employee Gender (M/F):
M
Enter the Employee's Email:
sanjaydp1228@gmail.com
================================================================================
Employee's Id is: 2380244
Employee's Name is: SANJAY P
Employee's Salary is: 18118.0
Employee's Address is: Salem, TamilNadu
Employee's Gender is: M
Employee's Email is: sanjaydp1228@gmail.com
```

6. Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers.



```java
package Assignment_Day_02;

import java.util.Scanner;

public class Operations {

    public static void main(String[] args) {

        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the First Number:");
        int number1=sc.nextInt();
        System.out.println("Enter the Second Number:");
        int number2=sc.nextInt();

        int sum=number1+number2;
        int sub=number1-number2;
        int mul=number1*number2;
        int div=number1/number2;
        int modulos=number1%number2;

        System.out.println("The Addition Of 2 Numbers is: "+sum);
        System.out.println("The Addition Of 2 Numbers is: "+sub);
        System.out.println("The Addition Of 2 Numbers is: "+mul);
        System.out.println("The Addition Of 2 Numbers is: "+div);
        System.out.println("The Addition Of 2 Numbers is: "+modulos);
    }

}
```



```
Enter the First Number:
125
Enter the Second Number:
25
The Addition Of 2 Numbers is: 150
The Addition Of 2 Numbers is: 100
The Addition Of 2 Numbers is: 3125
The Addition Of 2 Numbers is: 5
The Addition Of 2 Numbers is: 0
```

7. Write a Java method to find the smallest number among three numbers.

```java
package Assignment_Day_02;

import java.util.Scanner;

public class Find_Smallest_Number {
    public static void main(String[] args) {
        Scanner sc=new Scanner(System.in);
        System.out.println("Enter the First Number:");
        int number1=sc.nextInt();
        System.out.println("Enter the Second Number:");
        int number2=sc.nextInt();
        System.out.println("Enter the Third Number:");
        int number3=sc.nextInt();

        float result=findSmallestNumber(number1,number2,number3);
        System.out.printf("The Smallest Value is: %.1f",result);
    }
    public static float findSmallestNumber(int number1, int number2,int number3)
    {
        if((number1<number2) && (number1<number3))
        {
            return number1;
        }
        else if((number1>number2) && (number2<number3))
        {
            return number2;
        }
        else {
            return number3;
        }
    }
}
```

```
Console × Problems Debug Shell
<terminated> Find_Smallest_Number [Java Application]
Enter the First Number:
25
Enter the Second Number:
34
Enter the Third Number:
43
The Smallest Value is: 25.0
```

```
Console × Problems Debug Shell
<terminated> Find_Smallest_Number [Java Application]
Enter the First Number:
45
Enter the Second Number:
18
Enter the Third Number:
33
The Smallest Value is: 18.0
```

8. Write a Java method to compute the average of three numbers.