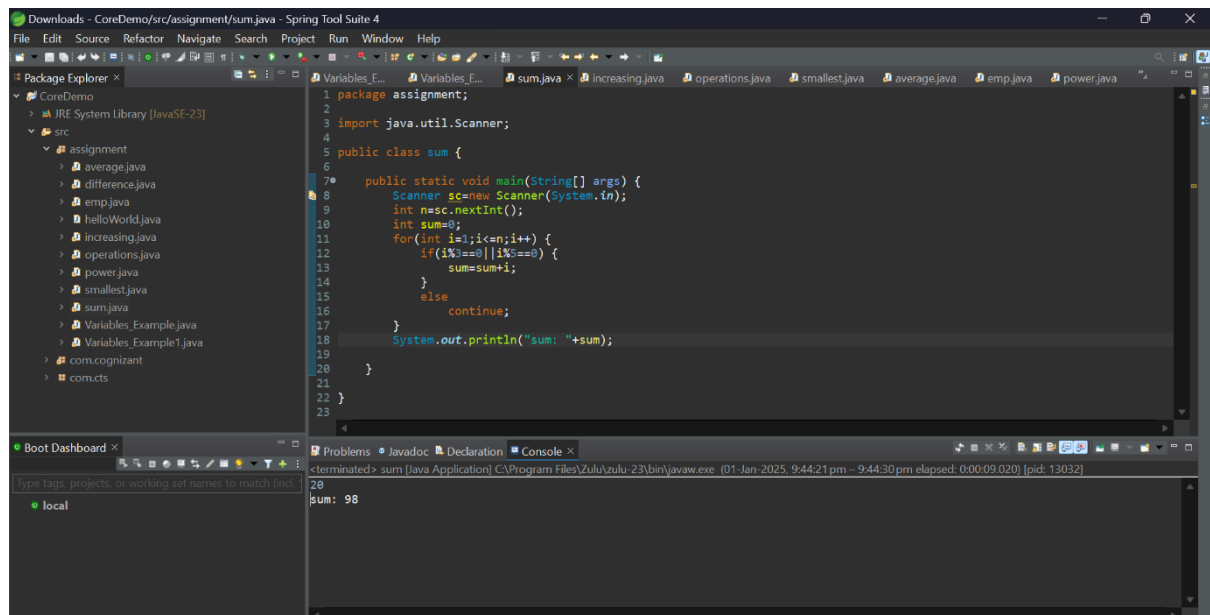


Janhavi. M

Empid:2380370

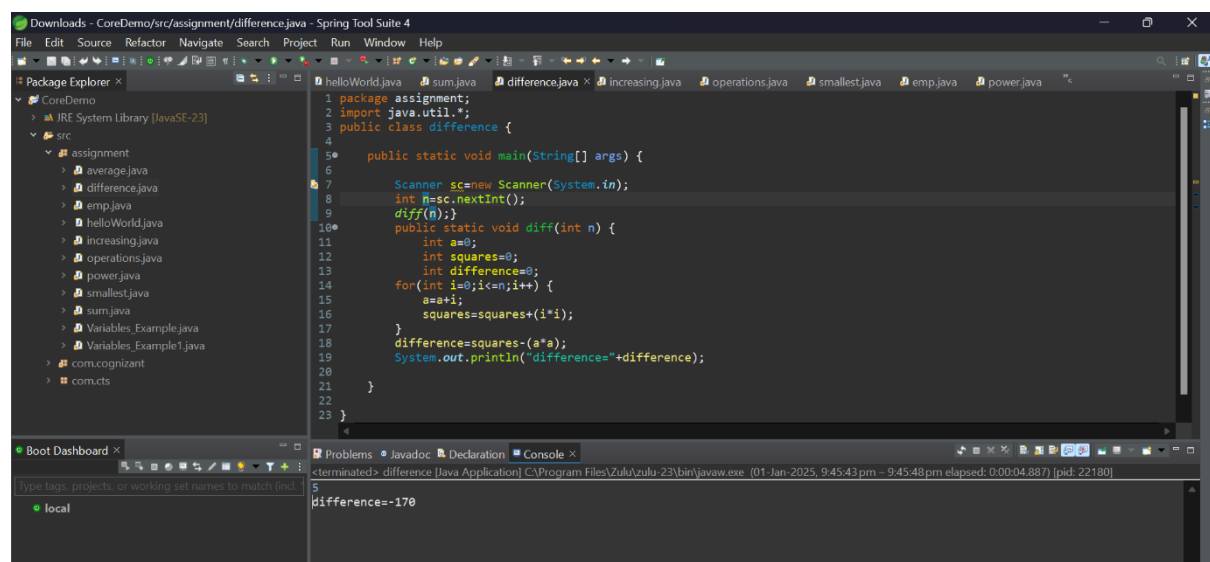
Exercise 1: Create a class with a method which can calculate the sum of first n natural numbers which are divisible by 3 or 5.



```
1 package assignment;
2
3 import java.util.Scanner;
4
5 public class sum {
6
7     public static void main(String[] args) {
8         Scanner sc=new Scanner(System.in);
9         int n=sc.nextInt();
10        int sum=0;
11        for(int i=1;i<=n;i++) {
12            if(i%3==0||i%5==0) {
13                sum=sum+i;
14            }
15            else
16                continue;
17        }
18        System.out.println("sum: "+sum);
19    }
20 }
21
22
23
```

Console Output: sum: 98

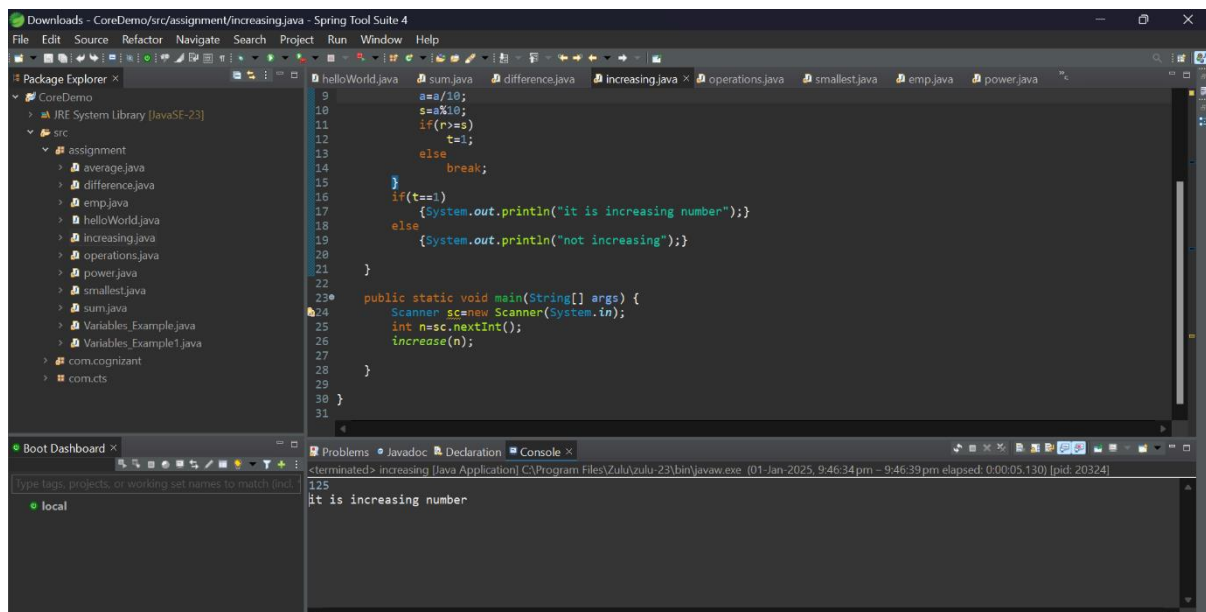
Exercise 2: Create a class with a method to find the difference between the sum of the squares and the square of the sum of the first n natural numbers.



```
1 package assignment;
2 import java.util.*;
3 public class difference {
4
5     public static void main(String[] args) {
6
7         Scanner sc=new Scanner(System.in);
8         int n=sc.nextInt();
9         diff(n);
10    }
11    public static void diff(int n) {
12        int a=0;
13        int squares=0;
14        int difference=0;
15        for(int i=0;i<=n;i++) {
16            a=a+i;
17            squares=squares+(i*i);
18        }
19        difference=squares-(a*a);
20        System.out.println("difference="+difference);
21    }
22 }
23
```

Console Output: difference:-170

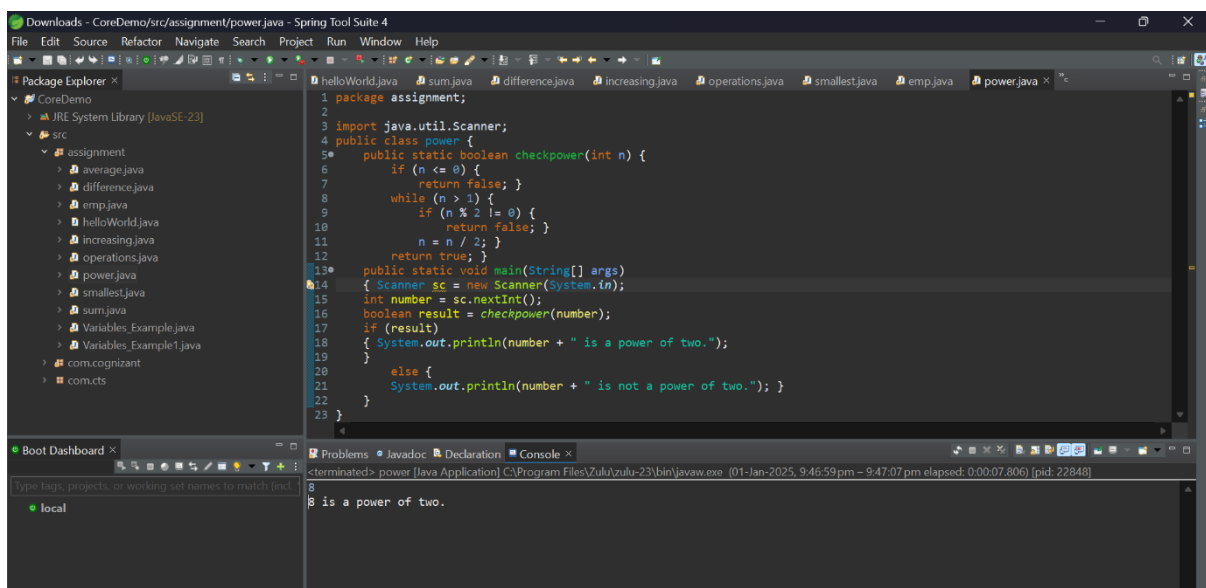
Exercise 3: Create a method to check if a number is an increasing number.



```
9      a=a/10;
10     s=s*10;
11     if(r>s)
12         t=1;
13     else
14         break;
15 }
16 if(t==1)
17     {System.out.println("it is increasing number");}
18 else
19     {System.out.println("not increasing");}
20 }
21 }
22 }
23
24 public static void main(String[] args) {
25     Scanner sc=new Scanner(System.in);
26     int n=sc.nextInt();
27     increase(n);
28 }
29 }
30 }
31 }
```

Console output: 125  
it is increasing number

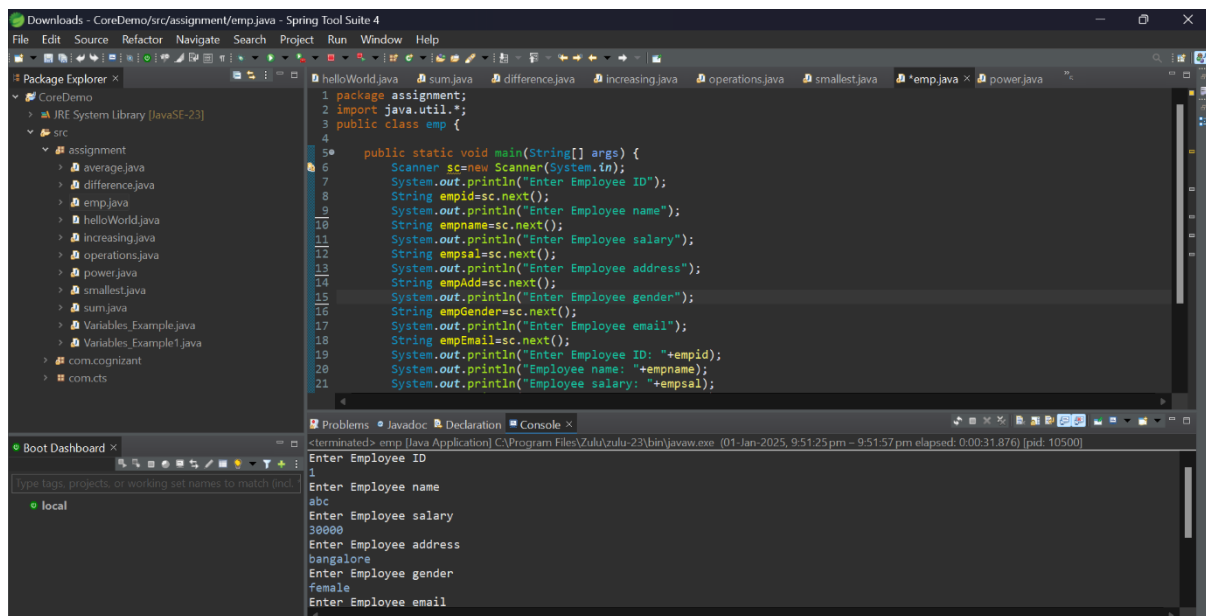
Exercise 4: Create a method to check if a number is a power of two or not.



```
1 package assignment;
2
3 import java.util.Scanner;
4 public class power {
5     public static boolean checkpower(int n) {
6         if (n <= 0) {
7             return false; }
8         while (n > 1) {
9             if (n % 2 != 0) {
10                 return false; }
11             n = n / 2; }
12         return true; }
13
14     public static void main(String[] args)
15     { Scanner sc = new Scanner(System.in);
16       int number = sc.nextInt();
17       boolean result = checkpower(number);
18       if (result)
19           { System.out.println(number + " is a power of two."); }
20       else {
21           System.out.println(number + " is not a power of two."); }
22     }
23 }
```

Console output: 8  
8 is a power of two.

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



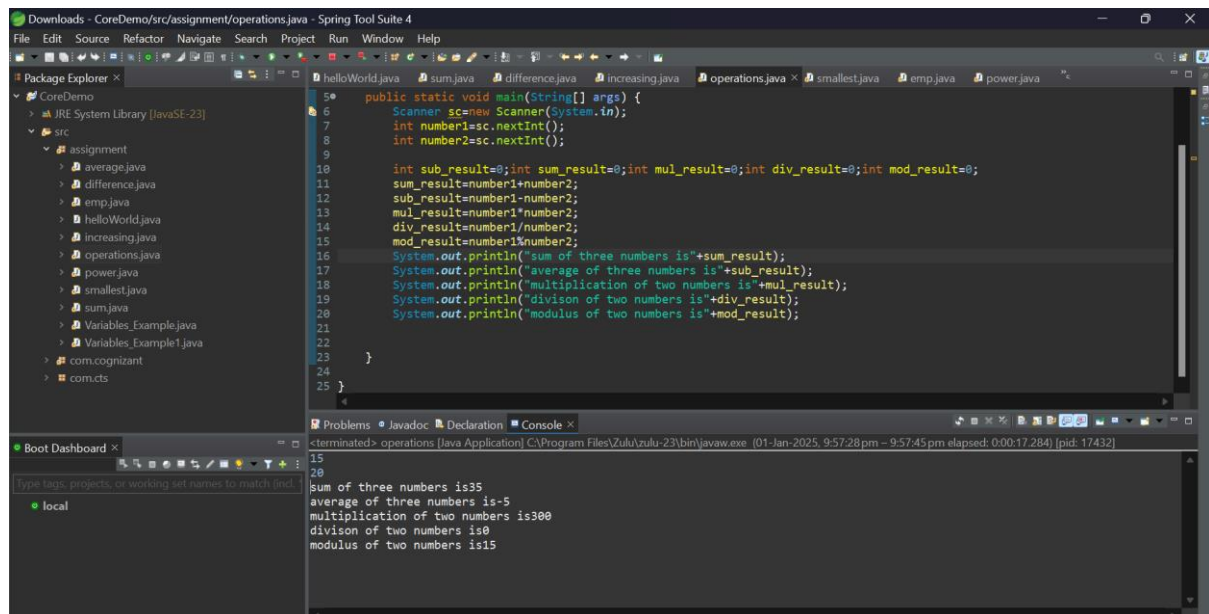
The screenshot displays the Spring Tool Suite 4 IDE. The Package Explorer on the left shows a project named 'CoreDemo' with a source folder 'src' containing several Java files, including 'emp.java'. The main editor window shows the code for 'emp.java', which is a Java application that takes employee information as input and displays it. The code is as follows:

```
1 package assignment;
2 import java.util.*;
3 public class emp {
4
5     public static void main(String[] args) {
6         Scanner sc=new Scanner(System.in);
7         System.out.println("Enter Employee ID");
8         String empid=sc.next();
9         System.out.println("Enter Employee name");
10        String empname=sc.next();
11        System.out.println("Enter Employee salary");
12        String empsal=sc.next();
13        System.out.println("Enter Employee address");
14        String empAdd=sc.next();
15        System.out.println("Enter Employee gender");
16        String empGender=sc.next();
17        System.out.println("Enter Employee email");
18        String empEmail=sc.next();
19        System.out.println("Enter Employee ID: "+empid);
20        System.out.println("Employee name: "+empname);
21        System.out.println("Employee salary: "+empsal);
```

The Console window at the bottom shows the output of the program, indicating that it has terminated and displaying the input values for each field:

```
<terminated> emp [Java Application] C:\Program Files\Zulu\zulu-23\bin\javaw.exe (01-Jan-2025, 9:51:25 pm - 9:51:57 pm elapsed: 0:00:31.876) [pid: 10500]
Enter Employee ID
1
Enter Employee name
abc
Enter Employee salary
30000
Enter Employee address
bangalore
Enter Employee gender
female
Enter Employee email
```

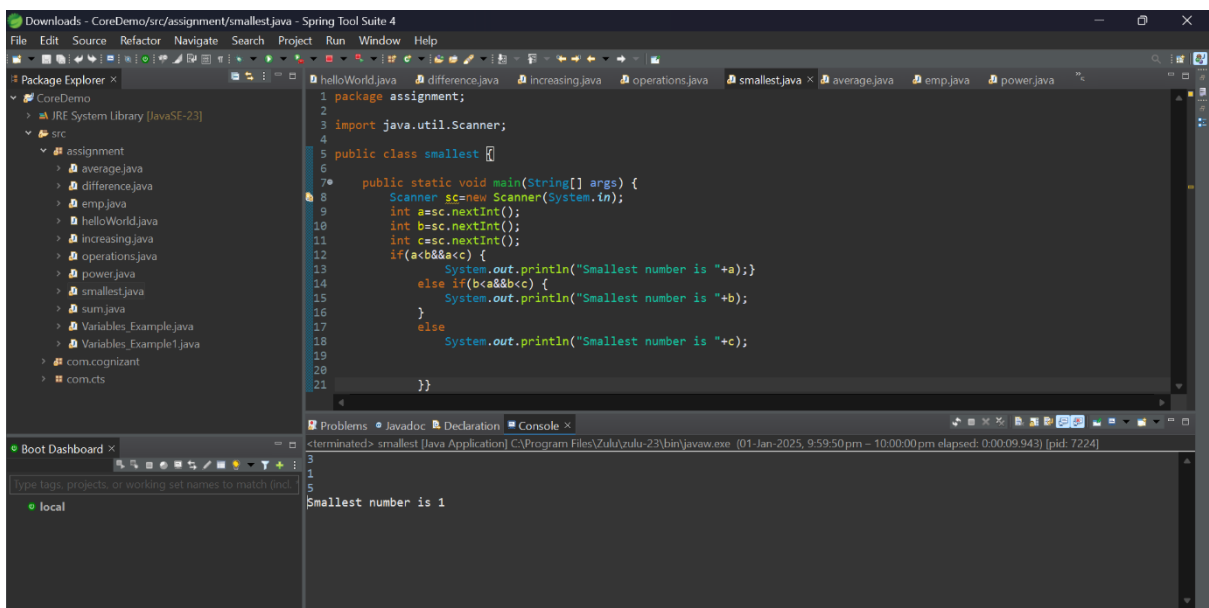
Exercise 6: Write a Java program to print the sum (addition), multiply, subtract, divide and remainder of two numbers



```
5 public static void main(String[] args) {
6     Scanner sc=new Scanner(System.in);
7     int number1=sc.nextInt();
8     int number2=sc.nextInt();
9
10    int sub_result=0;int sum_result=0;int mul_result=0;int div_result=0;int mod_result=0;
11    sum_result=number1+number2;
12    sub_result=number1-number2;
13    mul_result=number1*number2;
14    div_result=number1/number2;
15    mod_result=number1%number2;
16    System.out.println("sum of three numbers is"+sum_result);
17    System.out.println("average of three numbers is"+sub_result);
18    System.out.println("multiplication of two numbers is"+mul_result);
19    System.out.println("division of two numbers is"+div_result);
20    System.out.println("modulus of two numbers is"+mod_result);
21
22 }
23
24
25 }
```

sum of three numbers is35  
average of three numbers is-5  
multiplication of two numbers is300  
division of two numbers is0  
modulus of two numbers is15

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



```
1 package assignment;
2
3 import java.util.Scanner;
4
5 public class smallest {
6
7     public static void main(String[] args) {
8         Scanner sc=new Scanner(System.in);
9         int a=sc.nextInt();
10        int b=sc.nextInt();
11        int c=sc.nextInt();
12        if(a<b&&a<c) {
13            System.out.println("Smallest number is "+a);
14        } else if(b<a&&b<c) {
15            System.out.println("Smallest number is "+b);
16        } else {
17            System.out.println("Smallest number is "+c);
18        }
19    }
20
21 }
```

Smallest number is 1

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

