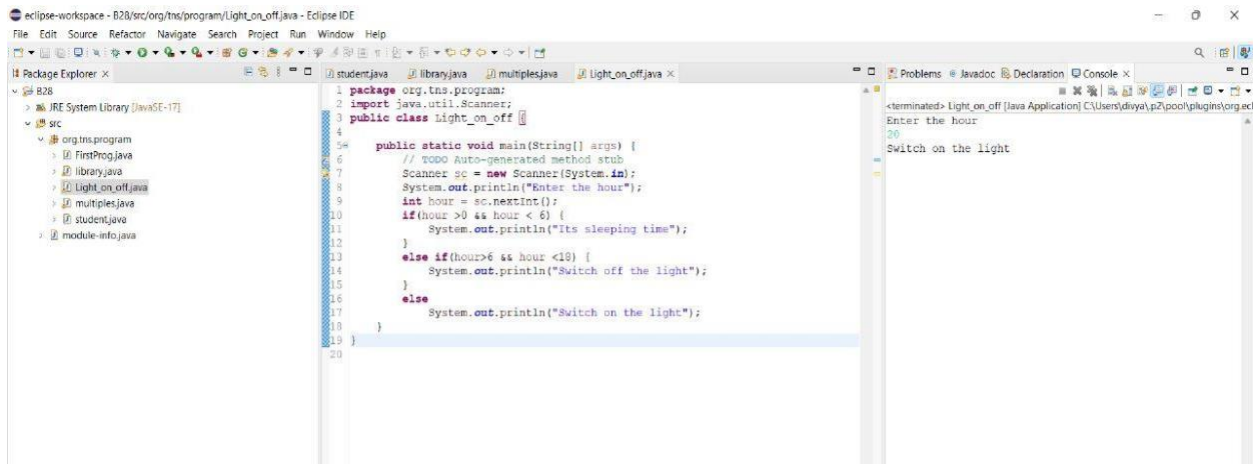


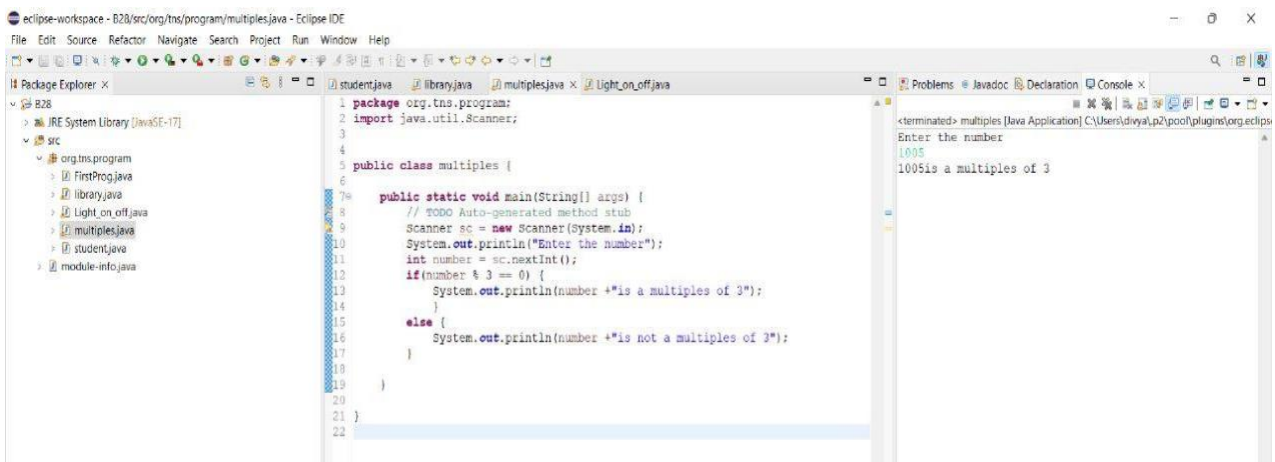
**1..Write a Java program that checks the time (given in a 24 Hour format) and turns on the light Switches in a smart home (program has to display lights on or lights off).**



```

1 package org.tns.program;
2 import java.util.Scanner;
3 public class Light_on_off {
4
5     public static void main(String[] args) {
6         // TODO Auto-generated method stub
7         Scanner sc = new Scanner(System.in);
8         System.out.println("Enter the hour");
9         int hour = sc.nextInt();
10        if(hour > 0 && hour < 6) {
11            System.out.println("Its sleeping time");
12        }
13        else if(hour >= 6 && hour < 18) {
14            System.out.println("Switch off the light");
15        }
16        else {
17            System.out.println("Switch on the light");
18        }
19    }
20 }
  
```

**2.Write a Java program to check if a number is a multiple of 3 or otherwise.**



```

1 package org.tns.program;
2 import java.util.Scanner;
3
4 public class multiples {
5
6     public static void main(String[] args) {
7         // TODO Auto-generated method stub
8         Scanner sc = new Scanner(System.in);
9         System.out.println("Enter the number");
10        int number = sc.nextInt();
11        if(number % 3 == 0) {
12            System.out.println(number + "is a multiples of 3");
13        }
14        else {
15            System.out.println(number + "is not a multiples of 3");
16        }
17    }
18 }
19
20
21
22
  
```

**3.A library charges a fine for books returned late as given below Design a program to calculate the fine for N days.**

First 5 days	Rs.1 per day
Next five days	Rs.5 per day
Above 10 days	Rs.10 per day

```
1 package org.tns.program;
2 import java.util. Scanner;
3
4 public class library {
5     public static void main(String[] args) {
6         Scanner sc = new Scanner(System.in);
7         System.out.println("Enter the days you returned late");
8         int days = sc.nextInt();
9         if(days<5) {
10             System.out.println("The fine is "+days*1);
11         }
12         else if((days>5)&&(days<10)) {
13             System.out.println("The fine is "+days*5);
14         }
15         else {
16             System.out.println("The fine is "+days*10);
17         }
18     }
19 }
20 }
21 }
```

Console Output:

```
<terminated> library [Java Application] C:\Users\divya\p2\pool\plugins\org.eclipse.j
Enter the days you returned late
16
The fine is 160
```

**4. Program has to design student data(name,age,3 subjects,Total and average).**

```
1 package org.tns.program;
2 import java.util. Scanner;
3
4 public class student {
5
6     public static void main(String[] args) {
7         try { // TODO Auto-generated method stub
8             Scanner sc = new Scanner(System.in);
9             String name = sc.nextLine();
10            int age = sc.nextInt();
11            int sub1_mark = sc.nextInt();
12            int sub2_mark = sc.nextInt();
13            int sub3_mark = sc.nextInt();
14            int total=sub1_mark+sub2_mark+sub3_mark;
15            float average=total/3;
16            System.out.println("Name: "+name);
17            System.out.println("Age: "+age);
18            System.out.println("sub1_mark: "+sub1_mark);
19            System.out.println("sub2_mark: "+sub2_mark);
20            System.out.println("sub3 mark: "+sub3_mark);
21            System.out.println("Total: "+total);
22            System.out.println("Average: "+average);
23        }
24    }
25 }
26 }
```

Console Output:

```
<terminated> student [Java Application] C:\Users\divya\p2\pool\plugins\org.eclipse.j
DIVYABALA
21
87
99
80
Total: 266
Average: 88.6
```