

## Assignment 2\_COP

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COURSE – DAC , BATCH B

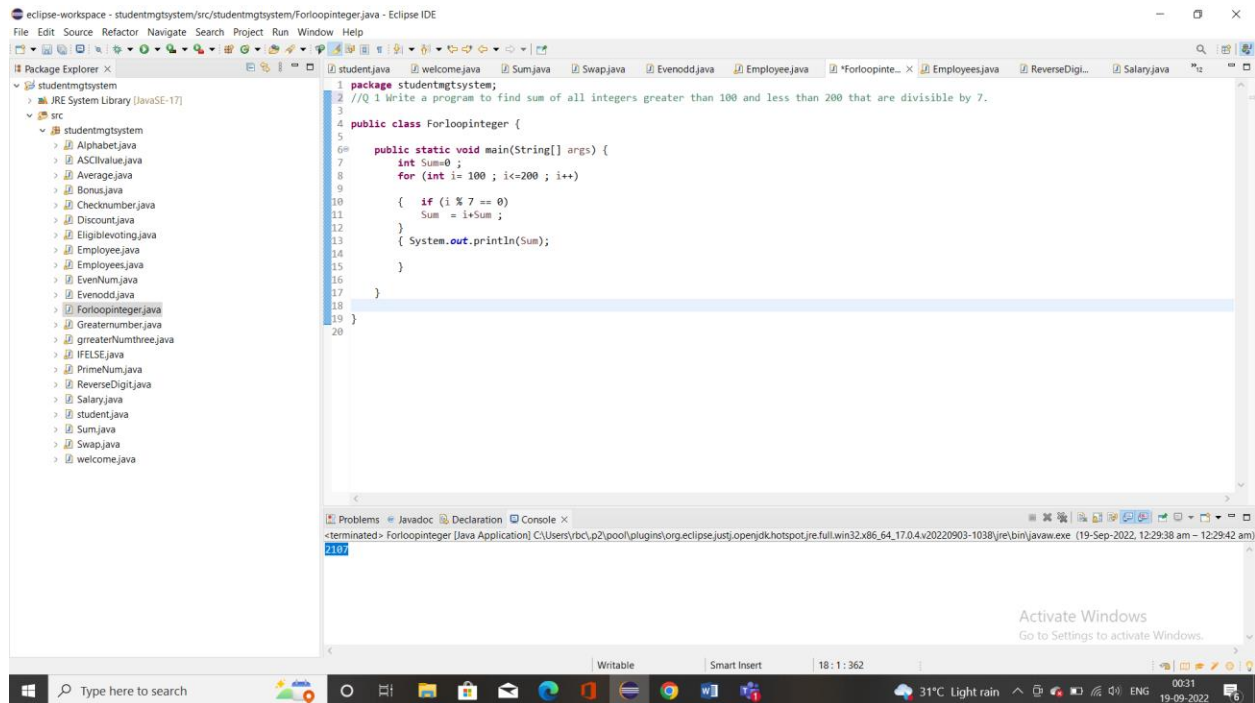
### Program 1

```
package studentmgtsystem;  
//Q 1 Write a program to find sum of all integers greater than 100 and less than 200  
that are divisible by 7.
```

```
public class Forloopinteger {  
  
    public static void main(String[] args) {  
        int Sum=0 ;  
        for (int i= 100 ; i<=200 ; i++)  
  
            {        if (i % 7 == 0)  
                        Sum  = i+Sum ;  
            }  
        { System.out.println(Sum);  
        }  
    }  
}
```

### Results

2107



## Program 2

```
package studentmgtsystem;
```

```
// Q.2 Write a program in java that ask three numbers from
```

```
//user and print the greatest among three .
```

```
import java.util.Scanner;
```

```
public class grreaterNumthree {
```

```
    public static void main(String[] args) {
```

```
        int N1 ,N2,N3 ;
```

```
        Scanner s= new Scanner(System.in);
```

```
        System.out.println("enter the value of N1");
```

```
        N1=s.nextInt();
```

```
        System.out.println("enter the value of N2");
```

```
        N2=s.nextInt();
```

```
        System.out.println("enter the value of N3");
```

```
N3=s.nextInt();
```

```
int largenumber = (N1>=N2)? ((N1>=N3)? N1:N3) : ((N2>=N3)?N2:N3);
```

```
System.out.println(largenumber);
```

```
}
```

```
}
```

#### **Result :**

enter the value of N1

1

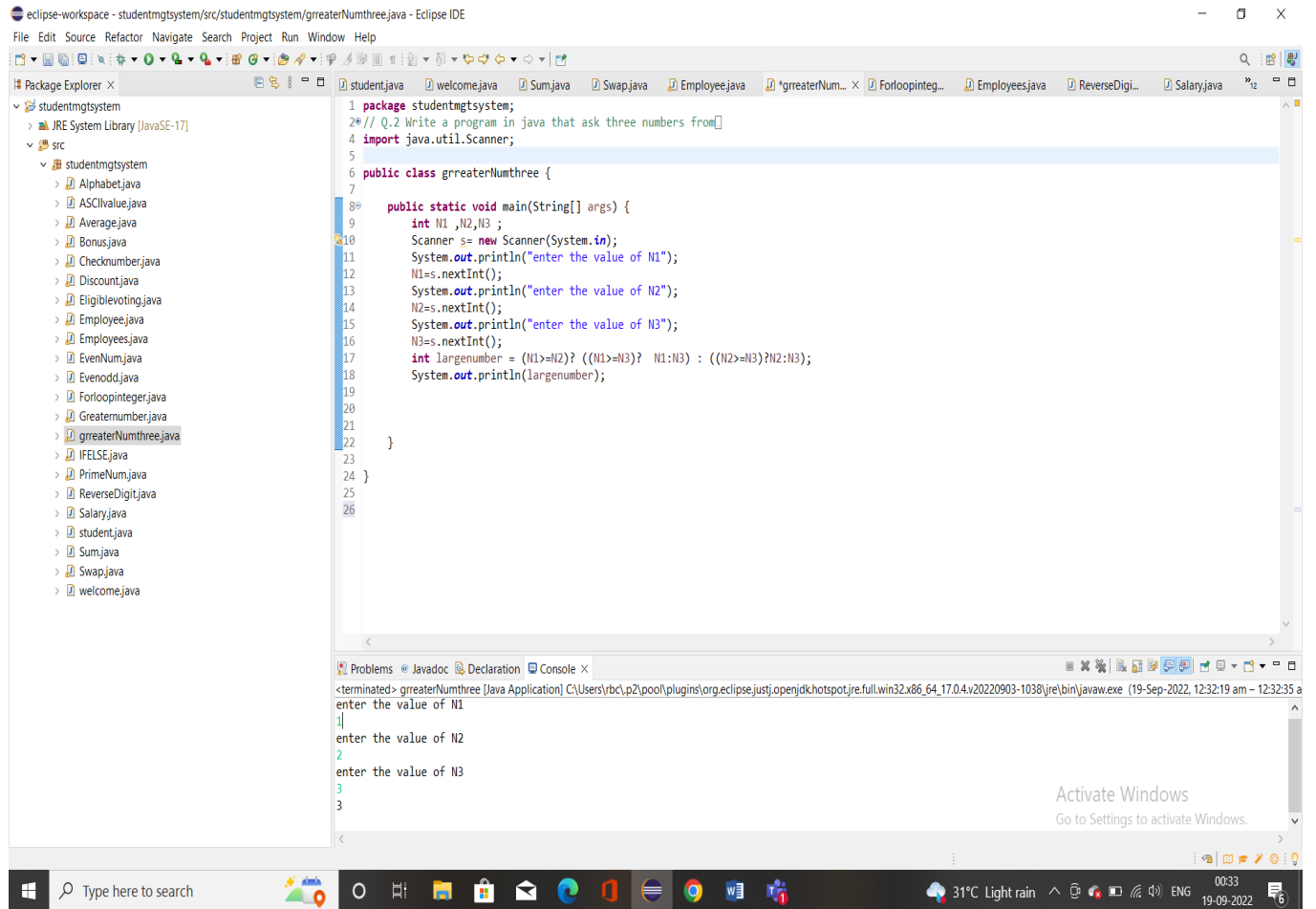
enter the value of N2

2

enter the value of N3

3

3



### Program 3

```
package studentmtgtsystem;
// Q. 3 WAP to find ASCII value of a character .
```

```
public class ASCIIvalue {

    public static void main(String[] args) {
        int ch1 = 'a' ;
        int ch2 = 'b' ;
        {
            System.out.println("The ASCII Value of a " +ch1) ;
            System.out.println("The ASCII Value of b " +ch2) ;

        }

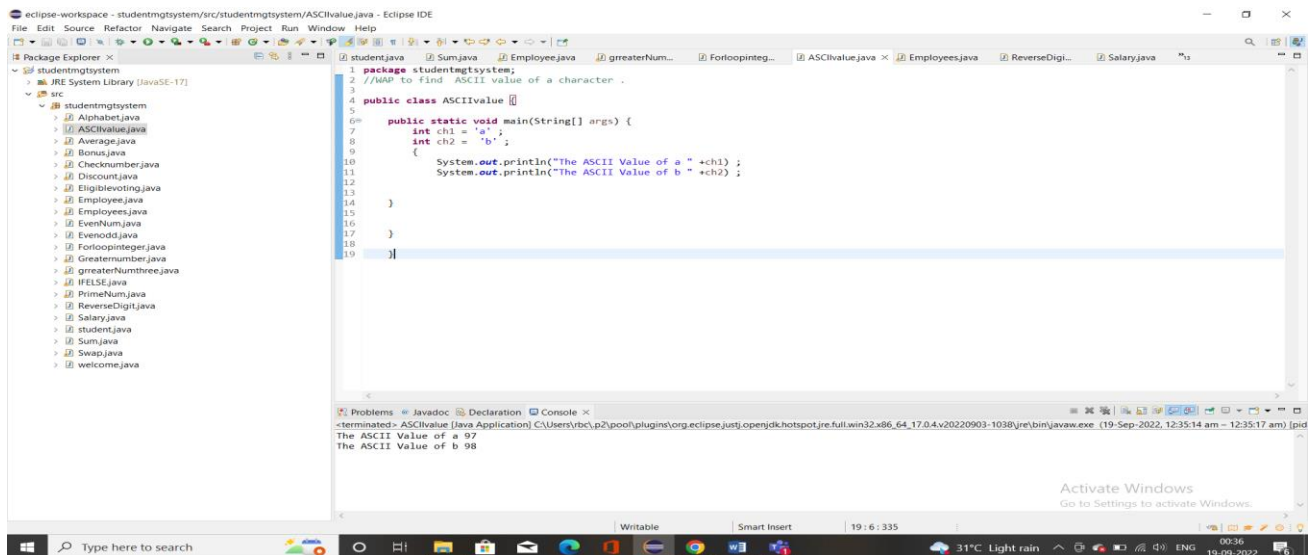
    }

}
```

## Result

The ASCII Value of a 97

The ASCII Value of b 98



## Program 4

```
package studentmtgtsystem;
// Q.4 Java Program to Check Whether an Alphabet is Vowel or Consonant .

import java.util.Scanner;

public class Alphabet {

    public static void main(String[] args) {
        char input;

        Scanner s = new Scanner(System.in);
        System.out.println("enter a alphabate =");
        input = s.next().charAt(0);
        input = Character.toLowerCase(input);
        if(input == 'a' || input == 'e' || input == 'i' || input == 'o' || input
== 'u') {
            System.out.println("Entered character is Vowel");
        }
        else {
            System.out.println("Entered character is Consonent");
        }

    }

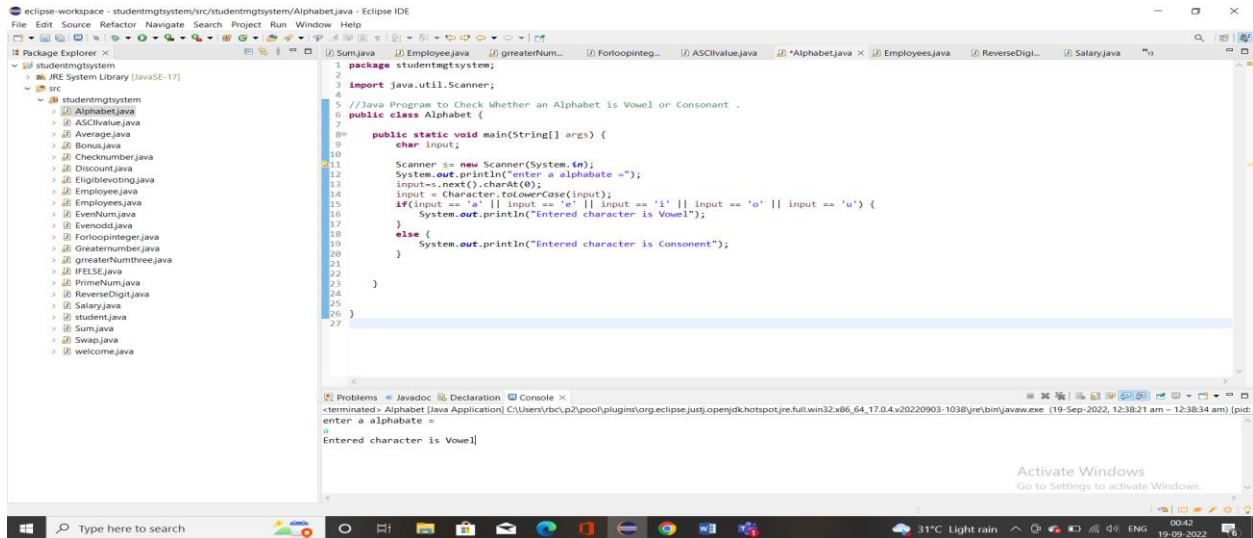
}
```

## Result

enter a alphabate =

a

Entered character is Vowel



## Program 5

```
package studentmtgtsystem;
//Q.5 Check if a Number is Positive or Negative using if else
import java.util.Scanner;

public class IFELSE {

    public static void main(String[] args) {
        int num ;
        Scanner s= new Scanner(System.in);
        System.out.println("enter the value of num");
        num=s.nextInt();
        if(num > 0) {
            System.out.println("entered Number is Positive");
        }

        else if(num < 0) {
            System.out.println("entered Number is Negative");
        }
        else {
            System.out.println("entered Number is Zero");
        }

    }

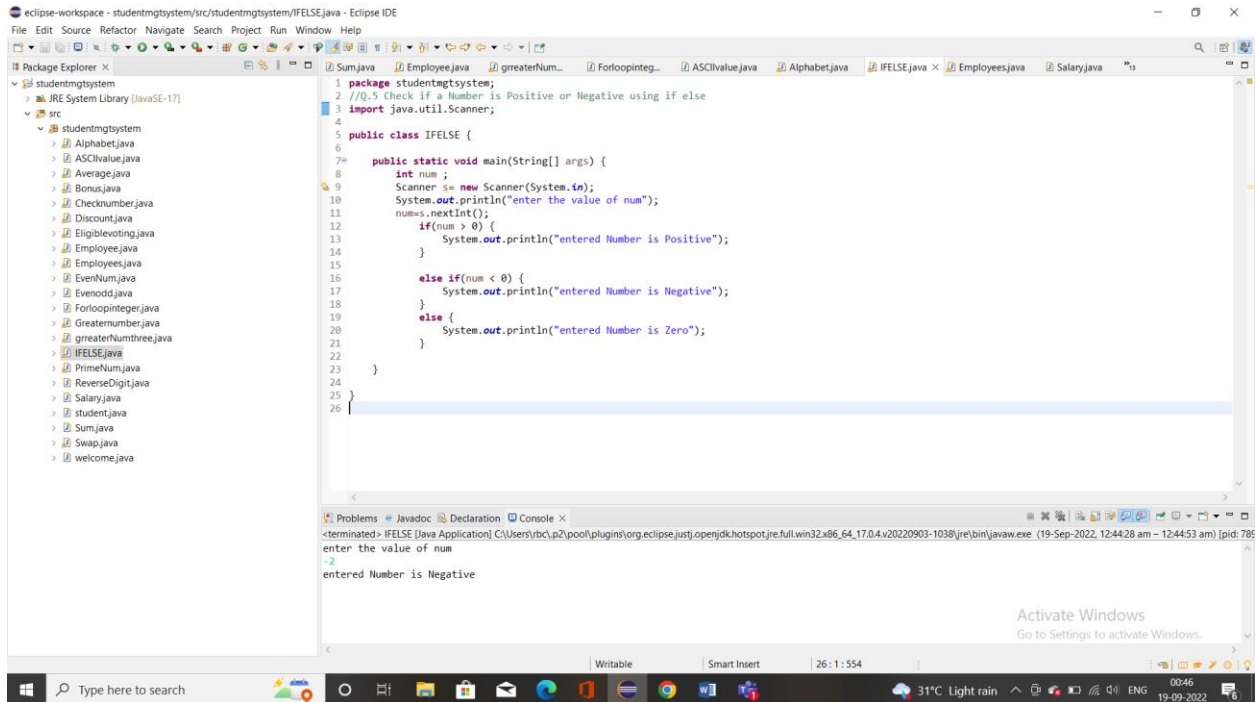
}
```

## Result

enter the value of num

-2

entered Number is Negative



## Program 6

```
package studentmgtsystem;
//Q. 6 WAP for swapping two numbers without using third variable
public class Swap2only {

    public static void main(String[] args) {
        System.out.println("Before swapping");
        int x = 1;
        int y = 2;
        System.out.println("value of x:" + x);
        System.out.println("value of y:" + y);
        System.out.println("After swapping");
        x = x + y;
        y = x - y;
        x = x - y;
        System.out.println("value of x:" + x);
        System.out.println("value of y:" + y);

    }

}
```

## Result

Before swapping

value of x:1

value of y:2

After swapping

value of x:2

value of y:1

The screenshot shows the Eclipse IDE interface. The Package Explorer on the left lists the project structure, including the 'src' folder and various Java files. The main editor displays the code for 'Swap2only.java'. The code is as follows:

```
1 package studentmgmtsystem;
2 //Q. 6 WAP for swapping two numbers without using third variable
3 public class Swap2only {
4
5     public static void main(String[] args) {
6         System.out.println("Before swapping");
7         int x = 1;
8         int y = 2;
9         System.out.println("value of x:" + x);
10        System.out.println("value of y:" + y);
11        System.out.println("After swapping");
12        x = x + y;
13        y = x - y;
14        x = x - y;
15        System.out.println("value of x:" + x);
16        System.out.println("value of y:" + y);
17    }
18 }
19
20
21
```

The Console window at the bottom shows the output of the program:

```
<terminated> Swap2only [Java Application] C:\Users\bc\p2\pool\plugins\org.eclipse.justi.openjdk hotspot\jre.full.win32.x86_64_17.0.4.v20220903-1038\jre\bin\javaw.exe (19-Sep-2022, 12:52:17 am - 12:52:20 am) [pid
Before swapping
value of x:1
value of y:2
After swapping
value of x:2
value of y:1
```

The Windows taskbar at the bottom shows the system clock as 21:11:53 on 19-09-2022, with a weather forecast of 32°C and light rain.



## Program 7

```
package studentmgtsystem;
// Q.7 Write a program that would print the information (name,
//year of joining, salary, address) of three employees by creating a class named
//'Employee'. The output should be as follows:
//Name          Year of joining      Address

// Ashish
//1994                      64C- Wallstreat

//Sam
//2000                      68D- Wallstreat

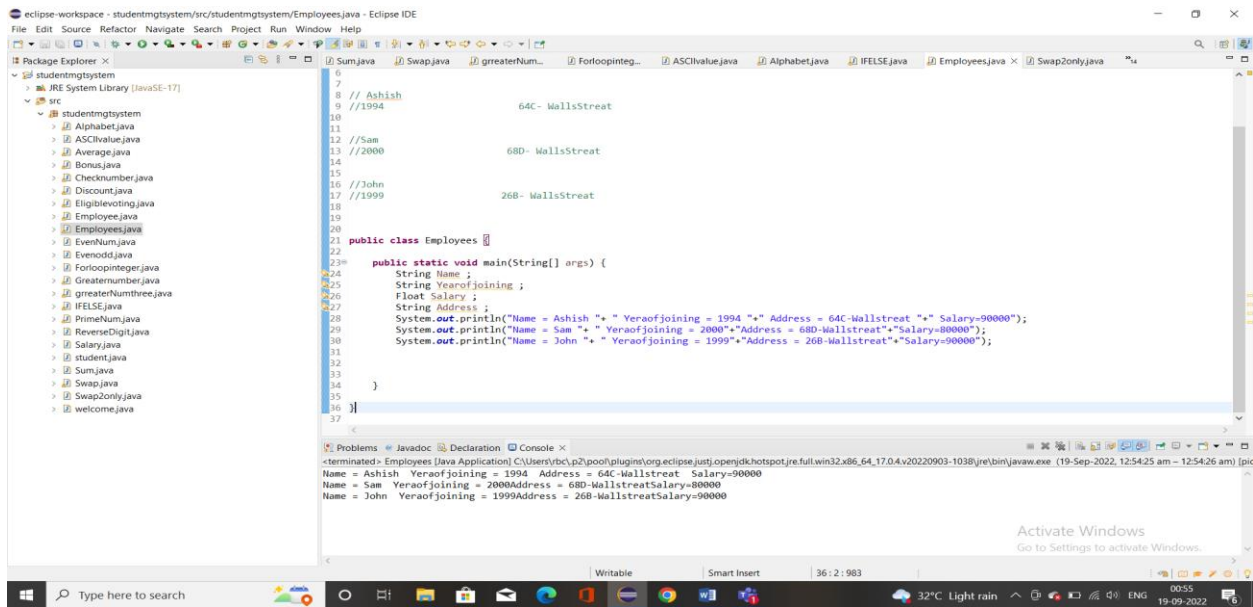
//John
//1999                      26B- Wallstreat

public class Employees {

    public static void main(String[] args) {
        String Name ;
        String Yearofjoining ;
        Float Salary ;
        String Address ;
        System.out.println("Name = Ashish "+ " Yeraofjoining = 1994 "+" Address
= 64C-Wallstreat "+" Salary=90000");
        System.out.println("Name = Sam "+ " Yeraofjoining = 2000"+"Address =
68D-Wallstreat"+"Salary=80000");
        System.out.println("Name = John "+ " Yeraofjoining = 1999"+"Address =
26B-Wallstreat"+"Salary=90000");
    }
}
```

## Result

```
Name = Ashish Yeraofjoining = 1994 Address = 64C-Wallstreat Salary=90000
Name = Sam Yeraofjoining = 2000Address = 68D-WallstreatSalary=80000
Name = John Yeraofjoining = 1999Address = 26B-WallstreatSalary=90000
```



## Program 8

**package** studentmgtsystem;

//Q.8 Write a Java program to input basic salary of an employee and calculate its Gross salary according to following:

//Basic Salary <= 10000 : HRA = 20%, DA = 80%

//Basic Salary <= 20000 : HRA = 25%, DA = 90%

//Basic Salary > 20000 : HRA = 30%, DA = 95%

**public class** Salary {

**public static void** main(String[] args) {

    {

**double** basic=20000.50,gross,da,hra;

**if**(basic <=10000)

        {

            da = basic \* 0.8;

            hra = basic \*0.2;

        }

**else if**(basic <=20000)

        {

            da = basic \* 0.9;

            hra = basic \*0.25;

        }

**else**

        {

            da = basic \* 0.95;

            hra = basic \* 0.3;

        }

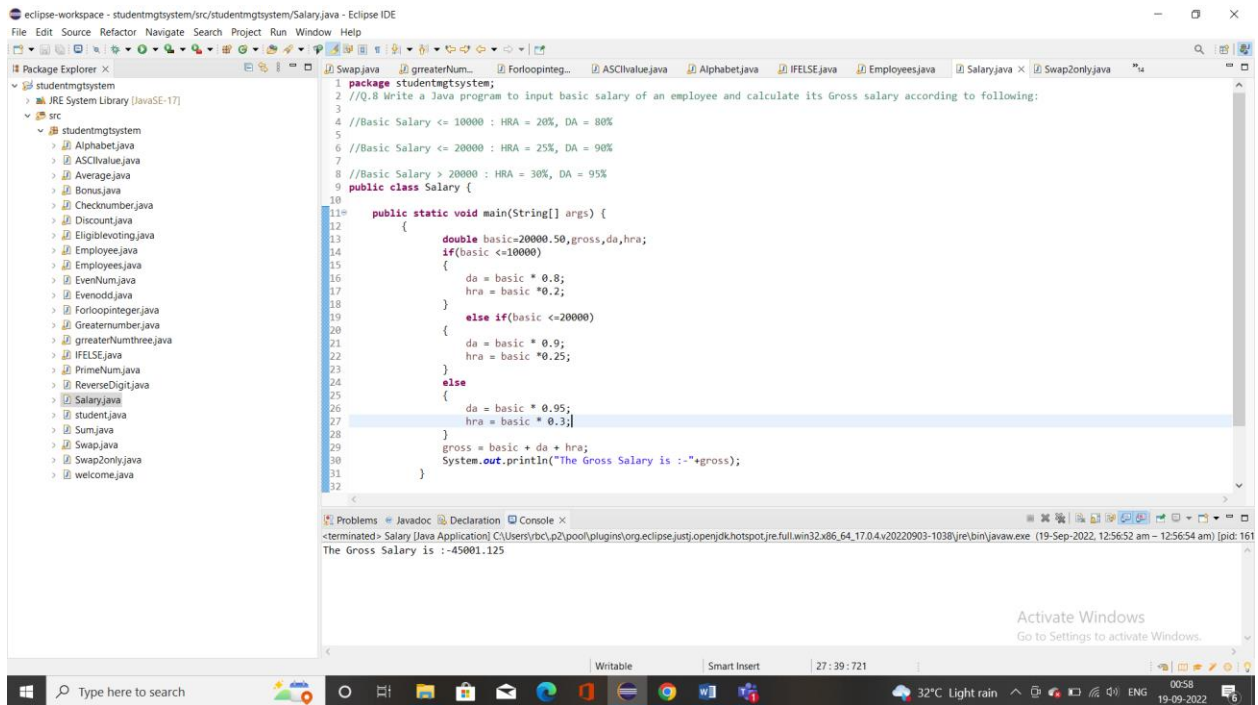
        gross = basic + da + hra;

        System.out.println("The Gross Salary is :-"+gross);

    }

## Result

The Gross Salary is :-45001.125



```
1 package studentmgtsystem;
2 //Q.8 Write a Java program to input basic salary of an employee and calculate its Gross salary according to following:
3
4 //Basic Salary <= 10000 : HRA = 20%, DA = 80%
5
6 //Basic Salary <= 20000 : HRA = 25%, DA = 90%
7
8 //Basic Salary > 20000 : HRA = 30%, DA = 95%
9 public class Salary {
10
11     public static void main(String[] args) {
12         {
13             double basic=20000.50,gross,da,hra;
14             if(basic <=10000)
15             {
16                 da = basic * 0.8;
17                 hra = basic *0.2;
18             }
19             else if(basic <=20000)
20             {
21                 da = basic * 0.9;
22                 hra = basic *0.25;
23             }
24             else
25             {
26                 da = basic * 0.95;
27                 hra = basic * 0.3;
28             }
29             gross = basic + da + hra;
30             System.out.println("The Gross Salary is :-"+gross);
31         }
32     }
33 }
```

Activate Windows  
Go to Settings to activate Windows.

## Program 9

```
package studentmgtsystem;
//Q.9 wap to print even numbers between 10 to 20
public class EvenNum {

    public static void main(String[] args) {

        for (int i=10 ; i<=20 ; i++)

            if (i % 2== 0)

                System.out.println("The even Number between 10 to 20 " + "=" + i) ;

    }

}
```

## Result

The even Number between 10 to 20 = 10

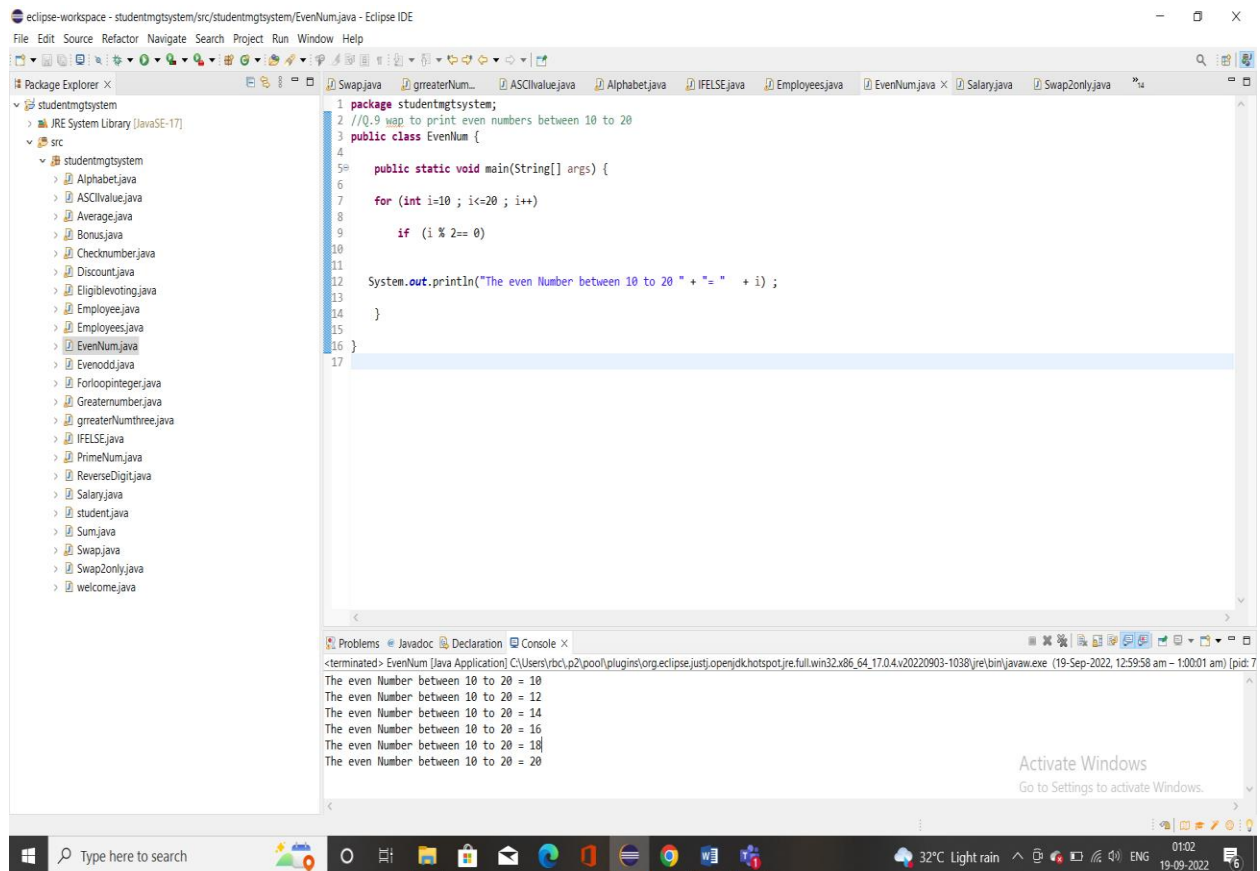
The even Number between 10 to 20 = 12

The even Number between 10 to 20 = 14

The even Number between 10 to 20 = 16

The even Number between 10 to 20 = 18

The even Number between 10 to 20 = 20



The screenshot shows the Eclipse IDE interface. The Package Explorer on the left lists the project structure, including the 'src' folder and various Java files. The main editor displays the code for 'EvenNum.java' in the 'studentmgtssystem' package. The code is as follows:

```
1 package studentmgtssystem;
2 //Q.9 wap to print even numbers between 10 to 20
3 public class EvenNum {
4
5     public static void main(String[] args) {
6
7         for (int i=10 ; i<=20 ; i++)
8
9             if (i % 2== 0)
10
11                 System.out.println("The even Number between 10 to 20 " + "=" + i) ;
12     }
13 }
14
15
16
17
```

The Console window at the bottom shows the output of the program, which prints the even numbers between 10 and 20, each followed by an equals sign and the number itself:

```
<terminated> EvenNum [Java Application] C:\Users\rbcl.p2\pool\plugins\org.eclipse.justi.openjdk hotspot\re.full.win32.x86_64.17.0.4.v20220903-1038\jre\bin\javaw.exe (19-Sep-2022, 12:59:58 am - 1:00:01 am) [pid: 7]
The even Number between 10 to 20 = 10
The even Number between 10 to 20 = 12
The even Number between 10 to 20 = 14
The even Number between 10 to 20 = 16
The even Number between 10 to 20 = 18
The even Number between 10 to 20 = 20
```

An 'Activate Windows' watermark is visible in the bottom right corner of the console area.

## Program 10

```
package studentmgtsystem;
//Q.10 wap to check if a number is prime or not .
import java.util.Scanner;
public class PrimeNum {

    public static void main(String[] args) {
        int Num ;
        Scanner s= new Scanner(System.in);
        System.out.println("enter the value of Num");
        Num=s.nextInt();

        if (Num % 2 != 0)    // not equal sign used
        {

            System.out.println("Number is Prime number");

        }

        else
        {

            System.out.println("Number is not Prime number");

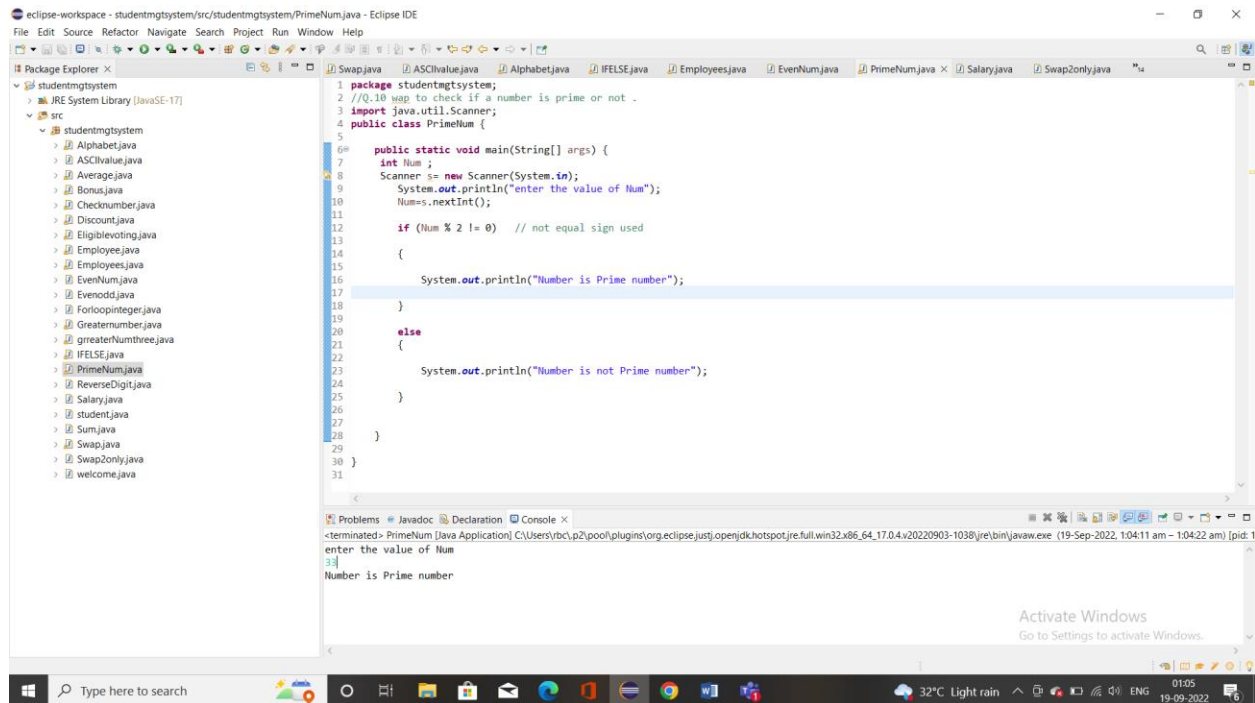
        }

    }

}
```

## Result

```
enter the value of Num
33
Number is Prime number
```



## Program 11

```
package studentmgtsystem;
// Q 11 wap to reverse a given digit    123    321
public class ReverseDigit {

    public static void main(String[] args) {

        int number = 123;
        int reversedNumber = 0;
        int temp = 0;

        while(number > 0){

            //use modulus operator to strip off the last digit
            temp = number%10;

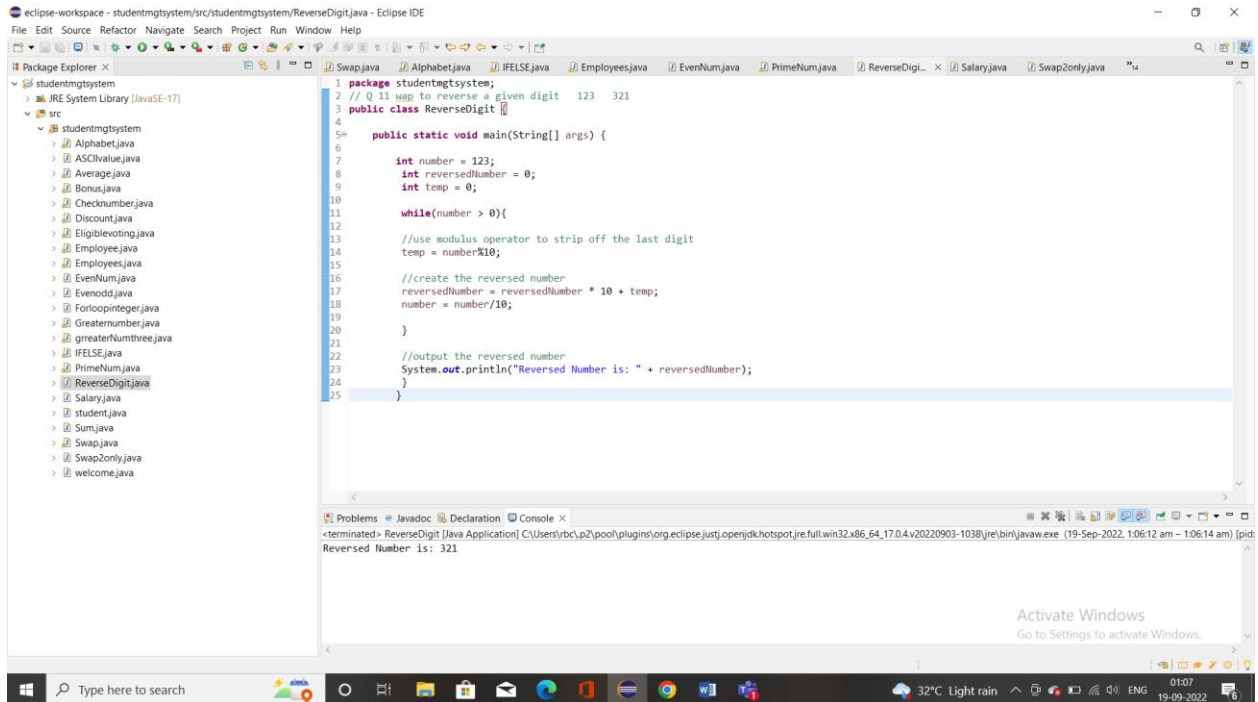
            //create the reversed number
            reversedNumber = reversedNumber * 10 + temp;
            number = number/10;

        }

        //output the reversed number
        System.out.println("Reversed Number is: " + reversedNumber);
    }
}
```

## Result

Reversed Number is: 321



The screenshot displays the Eclipse IDE interface. The Package Explorer on the left shows the project structure with 'ReverseDigit.java' selected. The main editor window shows the following Java code:

```
1 package studentmgtsystem;
2 // Q 11 wap to reverse a given digit 123 321
3 public class ReverseDigit {
4
5     public static void main(String[] args) {
6
7         int number = 123;
8         int reversedNumber = 0;
9         int temp = 0;
10
11         while(number > 0){
12
13             //use modulus operator to strip off the last digit
14             temp = number%10;
15
16             //create the reversed number
17             reversedNumber = reversedNumber * 10 + temp;
18             number = number/10;
19
20         }
21
22         //output the reversed number
23         System.out.println("Reversed Number is: " + reversedNumber);
24     }
25 }
```

The Console window at the bottom shows the output of the program:

```
<terminated> ReverseDigit [Java Application] C:\Users\rbc\p2\plugins\org.eclipse.justi.openjdk hotspot\jre.full.win32.x86_64_17.0.4\20220903-1038\jre\bin\javaw.exe (19-Sep-2022, 1:06:12 am - 1:06:14 am) [pid:
Reversed Number is: 321
```

An 'Activate Windows' watermark is visible in the bottom right corner of the IDE window.