REG NO	**:**	**19BCS0012**
NAME	**:**	**NITHISH G**
COURSE CODE	**:**	**3001**
COURSE	**:**	**JAVA PROGRAMMING**
DATE	**:**	**24.03.2021**

1. **Write a java program to declare the variables of following data types, to initialise the values, to initialise the values for all variables and to display the same :**

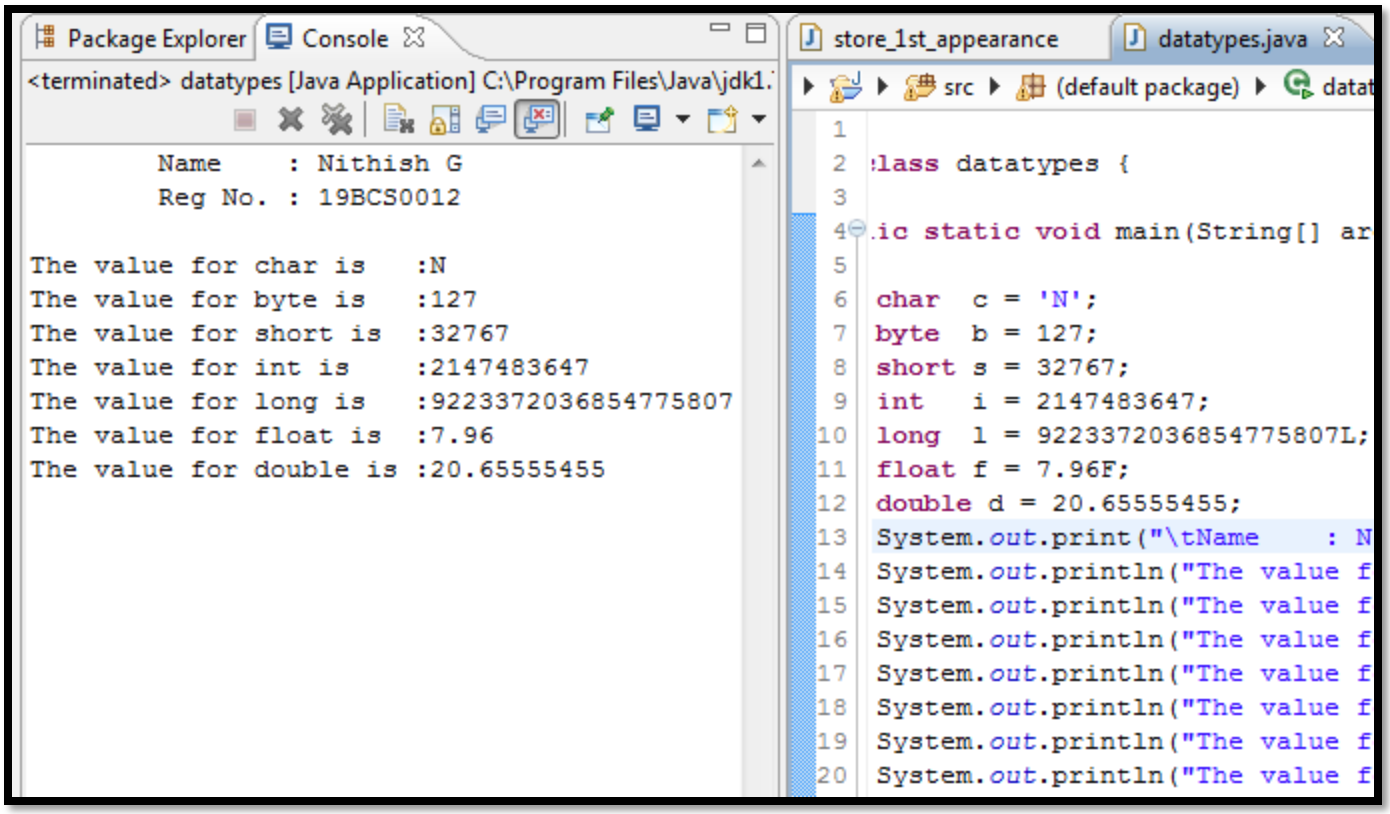
   - **Char**
   - **Byte**
   - **Short**
   - **Int**
   - **Long**
   - **Float**
   - **Double**

Source code

```
public class datatypes {

    public static void main(String[] args) {

        char c = 'N';
        byte b = 127;
        short s = 32767;
        int   i = 2147483647;
        long l = 92233720368547758O7L;
        float f = 7.96F;
        double d = 20.65555455;
```

```
System.out.print("Name    : Nithish G \nReg No.     : 19BCS0012\n\n");
            System.out.println("The value for char is :" +c);
            System.out.println("The value for byte is :" +b);
            System.out.println("The value for short is:" +s);
            System.out.println("The value for int is    :" +i);
            System.out.println("The value for long is :" +l);
            System.out.println("The value for float is :" +f);
            System.out.println("The value for double is      :" +d);
      }
}
```

Output :



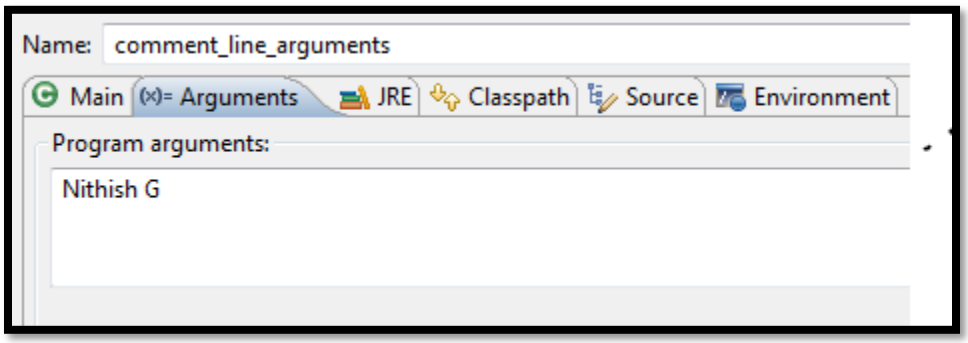
2. **Write a java program to get your first name and last name from command line arguments and print the same.**

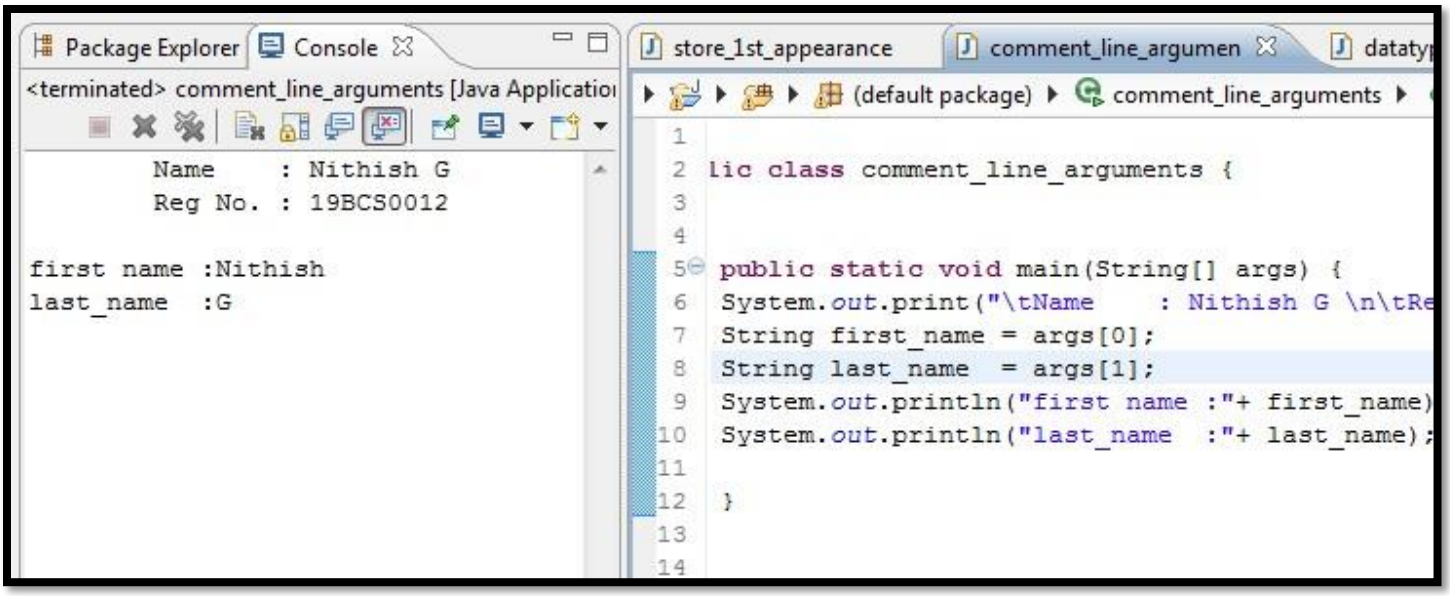
Source code:

```
public class comment_line_arguments {

        public static void main(String[] args) {

    String first_name = args[0];
    String last_name  = args[1];
    System.out.println("first name :"+ first_name);
    System.out.println("last_name  :"+ last_name);

    } }
```

Comment line argument : Nithish_G , 19BCS0012

Output



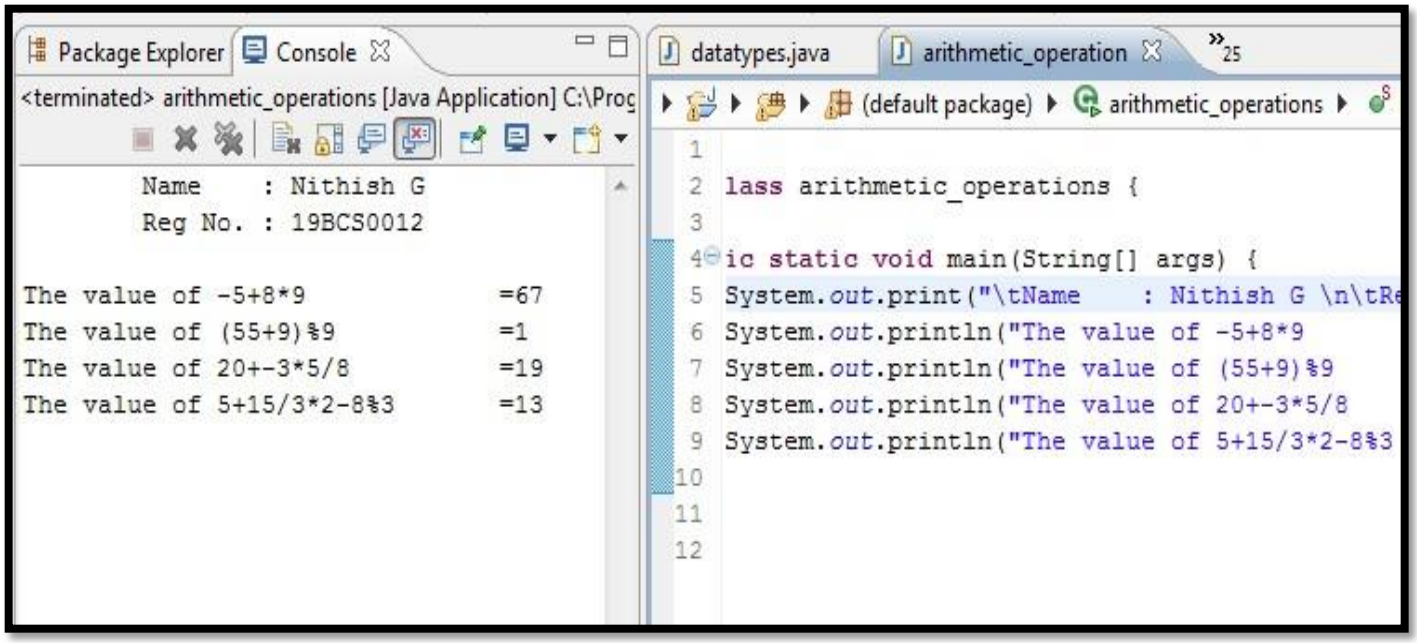


3. **Write a java program to print the result of the following operations.**
    a. **-5 + 8 * 6**
    b. **(55+9)%9**
    c. **20 + -3*5/8**
    d. **5+15/3*2-8%3**

Source code

```
public class arithmetic_operations {

    public static void main(String[] args) {

        System.out.println("The value of -5+8*9          =" +(-5+8*9));
        System.out.println("The value of (55+9)%9            =" +(55+9)%9);
        System.out.println("The value of 20+-3*5/8           =" +(20+-3*5/8));
        System.out.println("The value of 5+15/3*2-8%3        =" +(5+15/3*2-8%3));

    }

}
```

Output

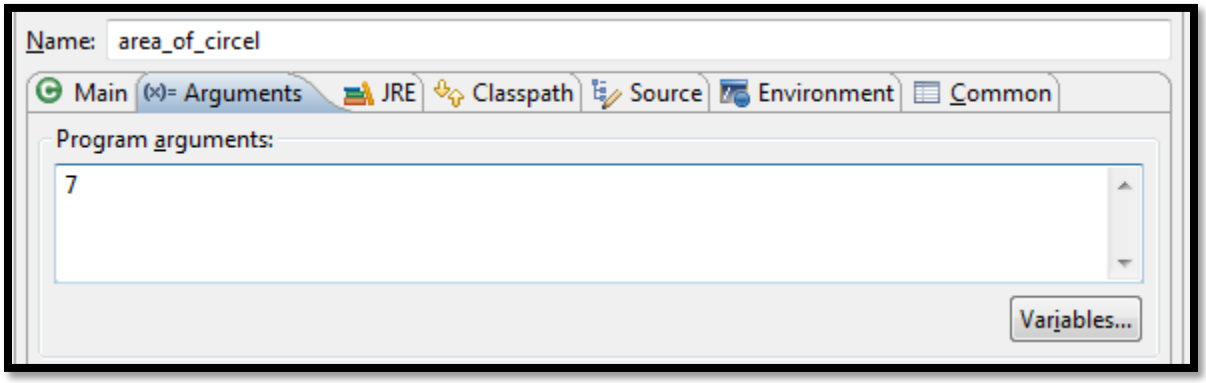


4. Find the area of the circle using comment line argument.

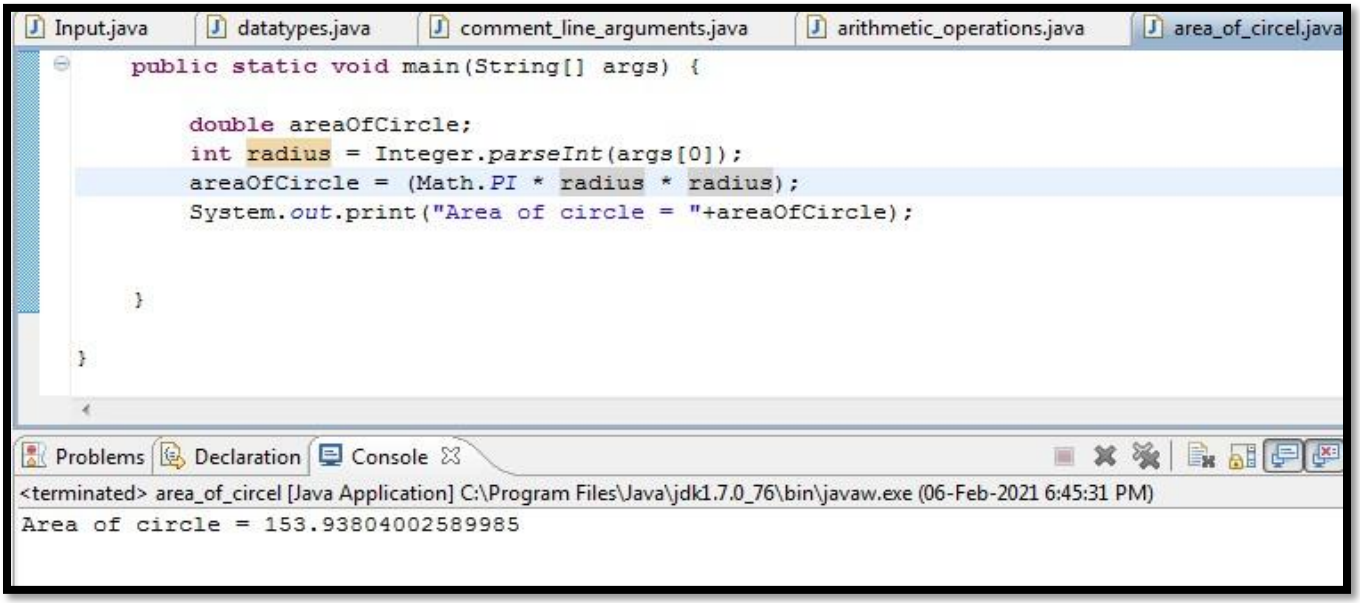
Source code:

```
import java.lang.Math;

public class area_of_circel {

        public static void main(String[] args) {

                double areaOfCircle;
                int  radius  = Integer.parseInt(args[0]);
                areaOfCircle = (Math.PI * radius * radius);
                System.out.print("Area of circle = "+areaOfCircle);
} }
```

Comment line argument



Output:

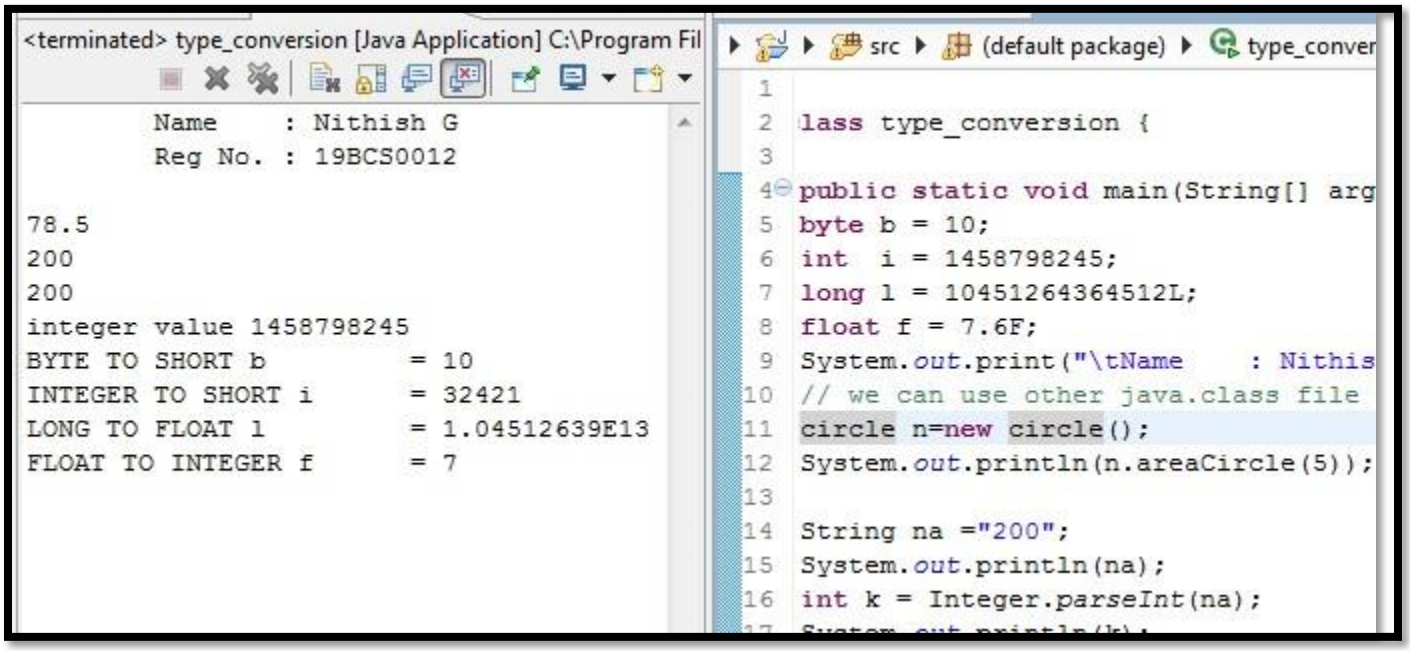


5. Type conversion

Source code:

```
public class type_conversion {

        public static void main(String[] args) {
        byte b = 10;
        int i = 1458798245;
        long l = 10451264364512L;
        float f = 7.6F;


short b_To_s = (short)b; //BYTE TO SHORT
short i_To_s = (short)i; //INTEGER TO SHORT
float l_To_f = (float)l; //LONG TO FLOAT
int   f_To_i = (int)f;   //FLOAT TO INTEGER

System.out.println("BYTE TO SHORT b      = "+b_To_s);
System.out.println("INTEGER TO SHORT i         = "+i_To_s);
System.out.println("LONG TO FLOAT l      = "+l_To_f);
System.out.println("FLOAT TO INTEGER f = "+f_To_i);
}
```

Output:



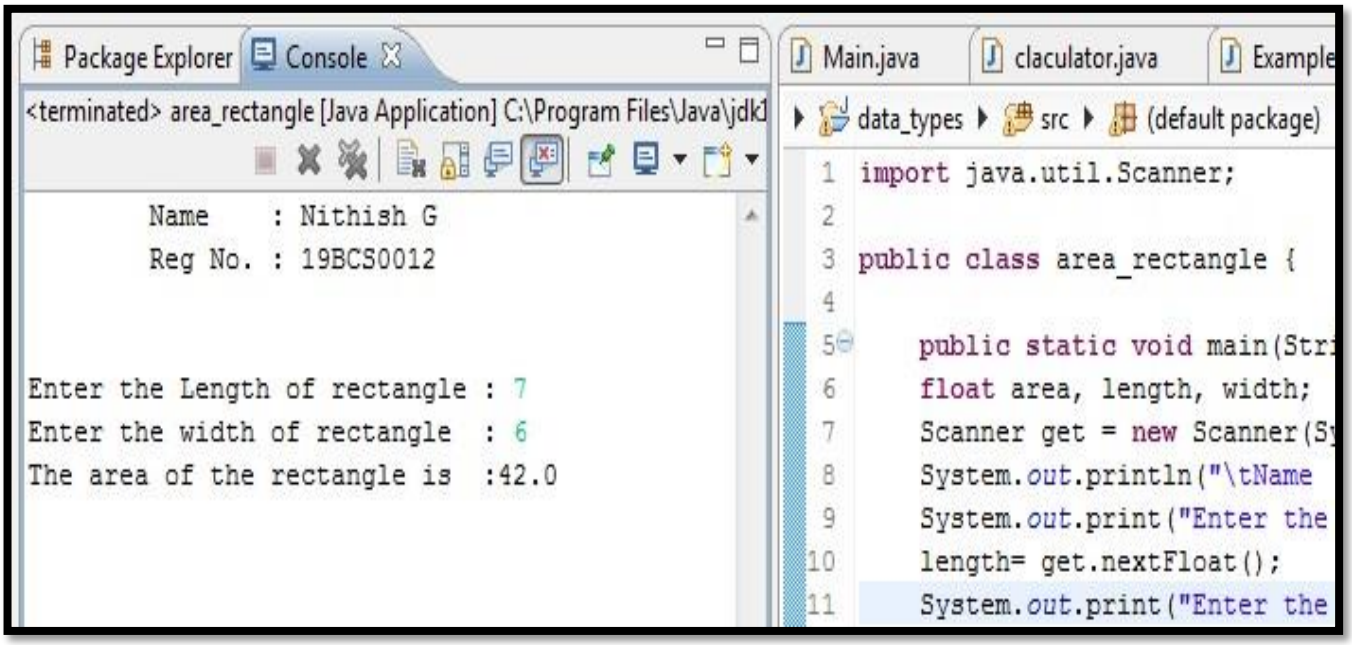
LAB - 2

6. Write a java code for finding the area of the rectangle by getting the height and width from user.

Source code :

```
import java.util.Scanner;

public class area_rectangle {

        public static void main(String[] args) {
        float area, height, width;
        Scanner get = new Scanner(System.in);
        System.out.println("\tName         : Nithish G\n\tReg No.       : 19BCS0012\n\n");
        System.out.println("Enter the height of rectangle : ");
        height= get.nextFloat();
        System.out.println("Enter the width of rectangle : ");
        width= get.nextFloat();
        area = width * height;
        System.out.println("The area of the rectangle is :" + area);

        } }
```

Output :



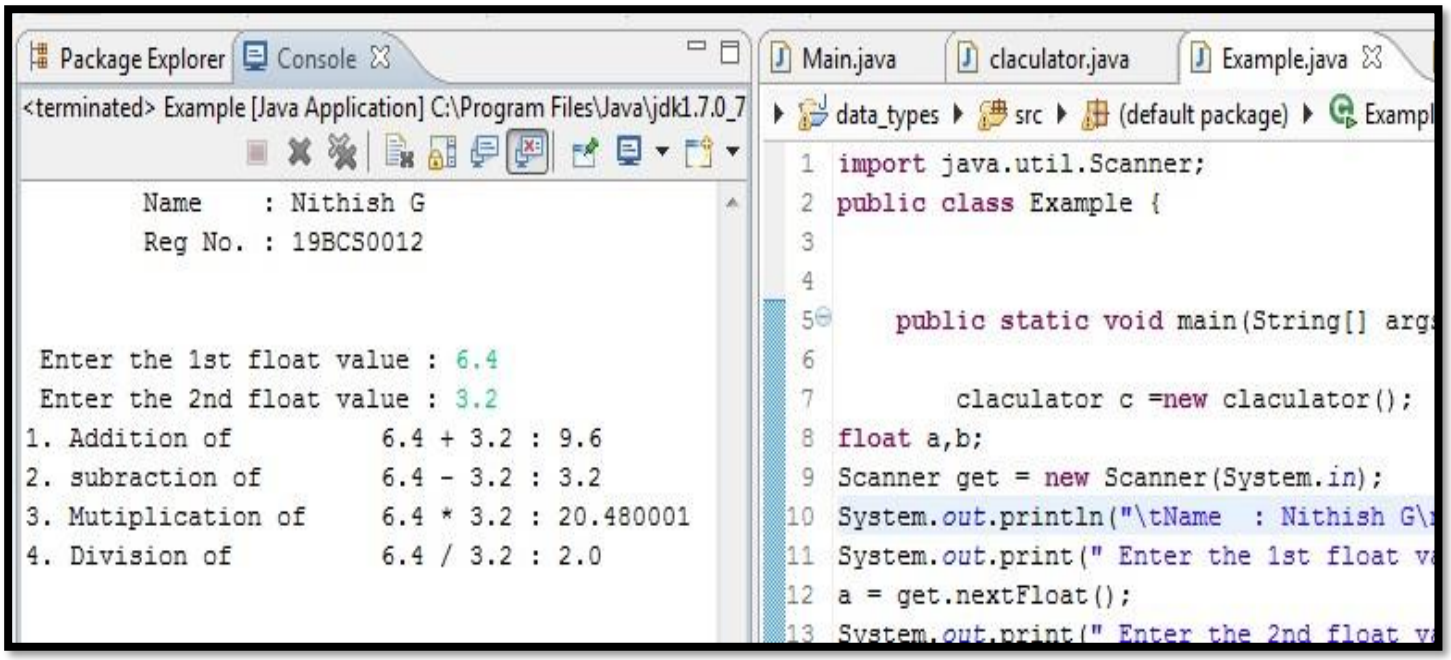
7. Create a class in java called Calculator, declare two float variables and four member functions named Add() for addition, Sub() for subtraction, Mulo for multiplication and Div() for division. Perform appropriate operations by geting two float values from user and calling the methods from the another class called Example by creating object of class Calculator.

Source code:

```
import java.util.Scanner;
public class Example {


        public static void main(String[] args) {


claculator c =new claculator();
float a,b;
Scanner get = new Scanner(System.in);
System.out.println("\tName          : Nithish G\n\tReg No.        : 19BCS0012\n\n");
System.out.println(" Enter the 1st float value : ");
a = get.nextFloat();
System.out.println(" Enter the 2nd float value : ");
b = get.nextFloat();
System.out.println("1. Addition of          "+a+" + "+b+" : "+c.add(a, b));
System.out.println("2. subraction of        "+a+" - "+b+" : "+c.sub(a, b));
System.out.println("3. Mutiplication of "+a+" * "+b+" : "+c.mul(a, b));
System.out.println("4. Division of  "+a+" / "+b+" : "+c.div(a, b));
        }
}


public class claculator
{
        float a=0,b=0;
        float add(float a,float b)
        {
```

```
        return a+b;
        }
        float sub(float a,float b)
        {
        return a-b;
        }
        float mul(float a,float b)
        {
        return a*b;
        }
        float div(float a,float b)
        {
                return a/b;
        }
}
```

Output :



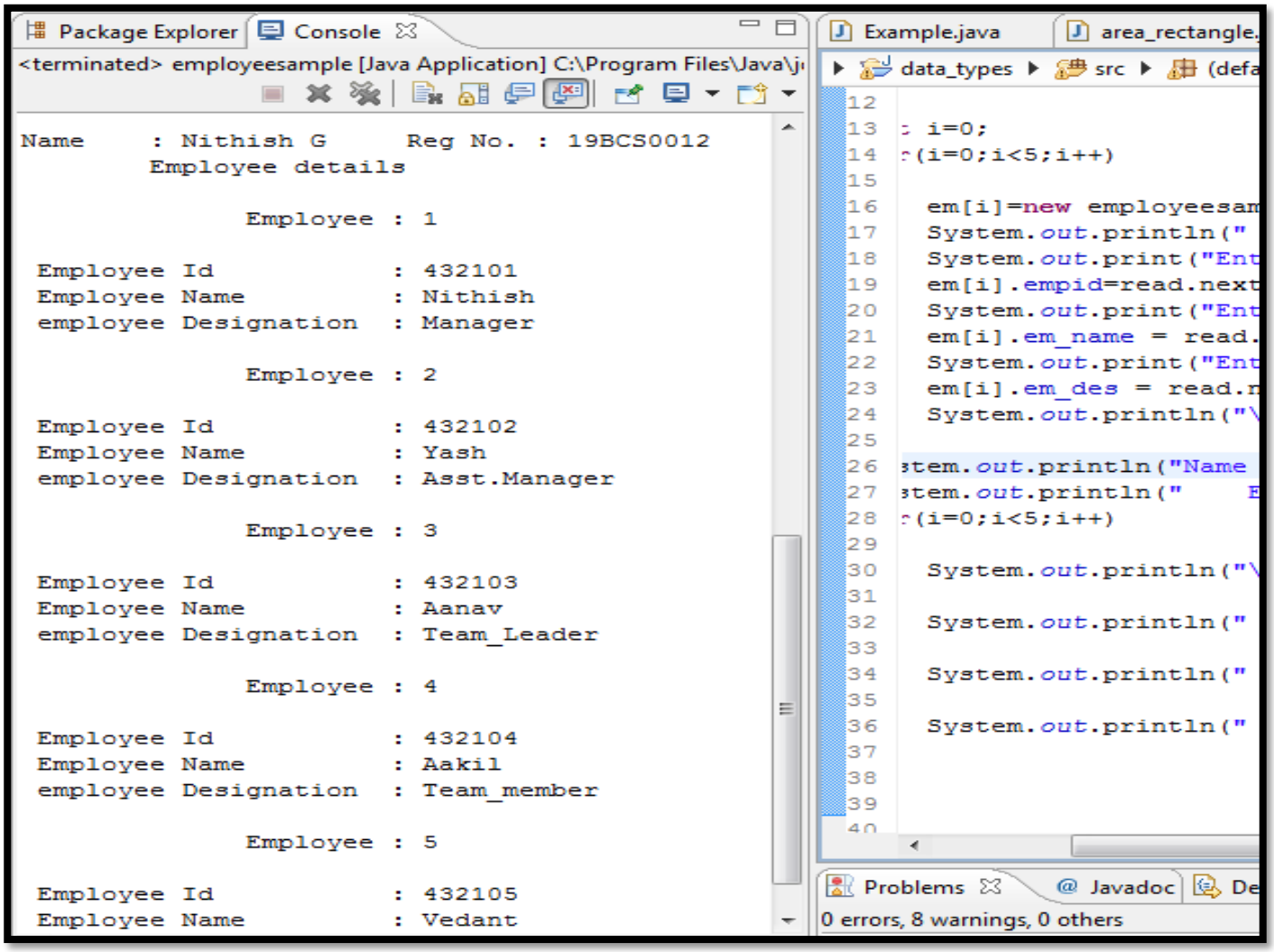
8. Write a Java code to get employee ID(6-digits), Employee Name and Employee Designation for 5 employees using classes and Array of Objects concept

Source code:

```
import java.util.Scanner;

public class employeesample {
        long empid;
        String em_name;
        String em_des;

        public static void main(String[] args) {

                employeesample[] em = new employeesample[5];
                Scanner read = new Scanner (System.in);
        System.out.println("\tName          : Nithish G\n\tReg No.       : 19BCS0012\n\n");
                int i=0;
                for(i=0;i<5;i++)
                {
                        em[i]=new employeesample();
                        System.out.println( i+1 +". Enter the employee details ");
                        System.out.println("Enter the employee id : ");
                        em[i].empid=read.nextLong();
                        System.out.println("Enter the employee name :");
                        em[i].em_name = read.next();
                        System.out.println("Enter the employee designation :");
                        em[i].em_des = read.next();
                }
                for(i=0;i<5;i++)
                {
                        System.out.println( i+1 +". employee details ");
```

```
                System.out.println(" the employee id : "+em[i].empid);

                System.out.println("the employee name : "+ em[i].em_name);

            System.out.println(" the employee designation  :" +em[i].em_des );
            }

    } }
```

Output:

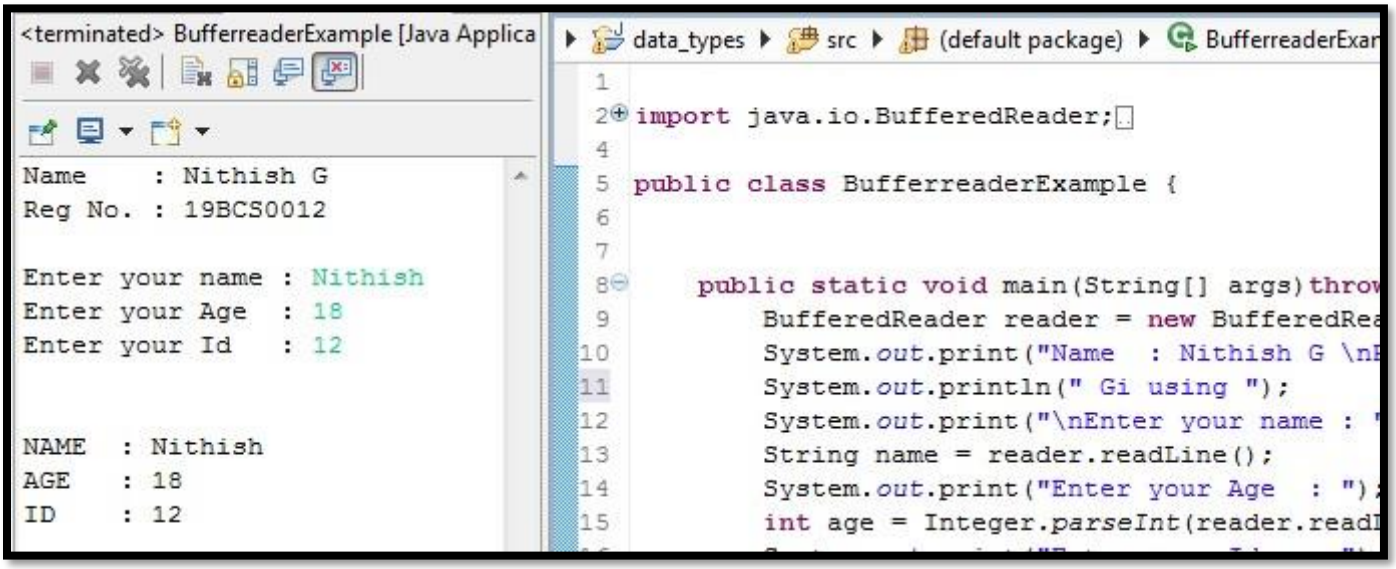


9. Write a java code to get two values of Name, Age and ID from the user using BufferedReader and InputStreamReader packages

Source code:

```
import java.io.BufferedReader;
import java.io.IOException;
import java.io.InputStreamReader;

public class BufferreaderExample {

	public static void main(String[] args)throws Exception {
		BufferedReader reader = new BufferedReader(new InputStreamReader(System.in));

		System.out.println("Enter your name : ");
		String name = reader.readLine();
		System.out.println("Enter your Age  : ");
		int age = Integer.parseInt(reader.readLine());
		System.out.println("Enter your Id  : ");
		int ID = Integer.parseInt(reader.readLine());
		System.out.println("NAME : "+ name);
		System.out.println("AGE : "+age);
		System.out.println("ID    : "+ID);
} }
```

Output :



Lab-3

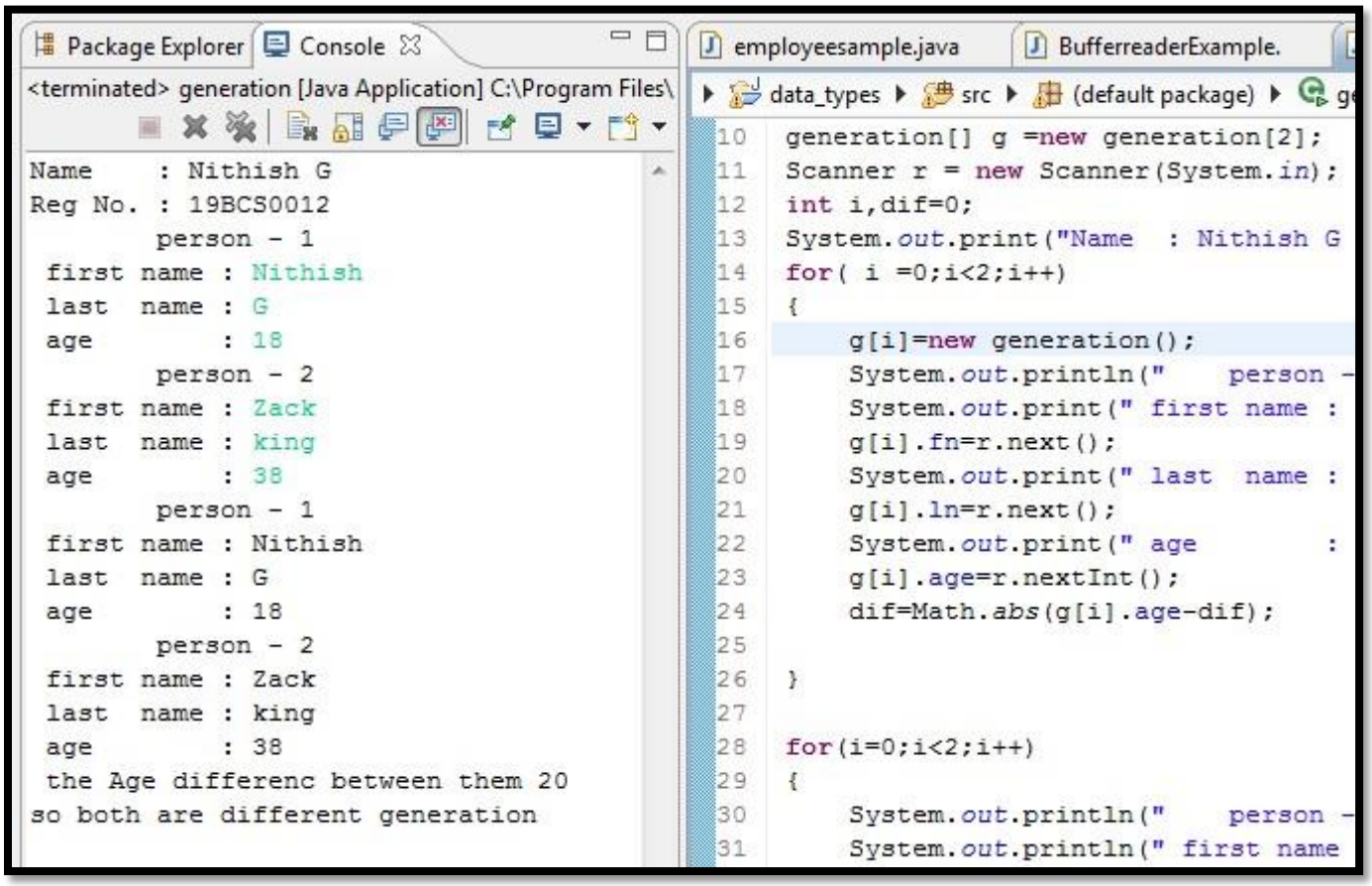
10. Write a java code to get First Name, Last name, and age of two persons from the user and display whether they are in same generation on not (if age difference is less than 15, same generation) along with their names.

Source code

```
import java.util.Scanner;
public class generation {

     String fn;
     String ln;
     int age;

     public static void main(String[] args) {

          generation[] g =new generation[2];
          Scanner r = new Scanner(System.in);
          int i,dif=0;
          System.out.print("Name : Nithish G \nReg No. :
19BCS0012\n");
          for( i =0;i<2;i++)
          {
               g[i]=new generation();
               System.out.println("   person - "+(i+1));
               System.out.print(" first name : " );
               g[i].fn=r.next();
               System.out.print(" last name : " );
               g[i].ln=r.next();
               System.out.print(" age        : " );
               g[i].age=r.nextInt();
               dif=Math.abs(g[i].age-dif);

          }

          for(i=0;i<2;i++)
          {
               System.out.println("   person - "+(i+1));
               System.out.println(" first name : "+g[i].fn );

               System.out.println(" last name : "+g[i].ln );

               System.out.println(" age        : "+g[i].age );
```

```
          }
if (dif<15)
{

     System.out.println(" the Age differenc between them " + dif);
     System.out.println("so both are same generation ");
}
else
{
     System.out.println(" the Age differenc between them " + dif);
     System.out.println("so both are different generation ");

}
     }

}
```

Output:

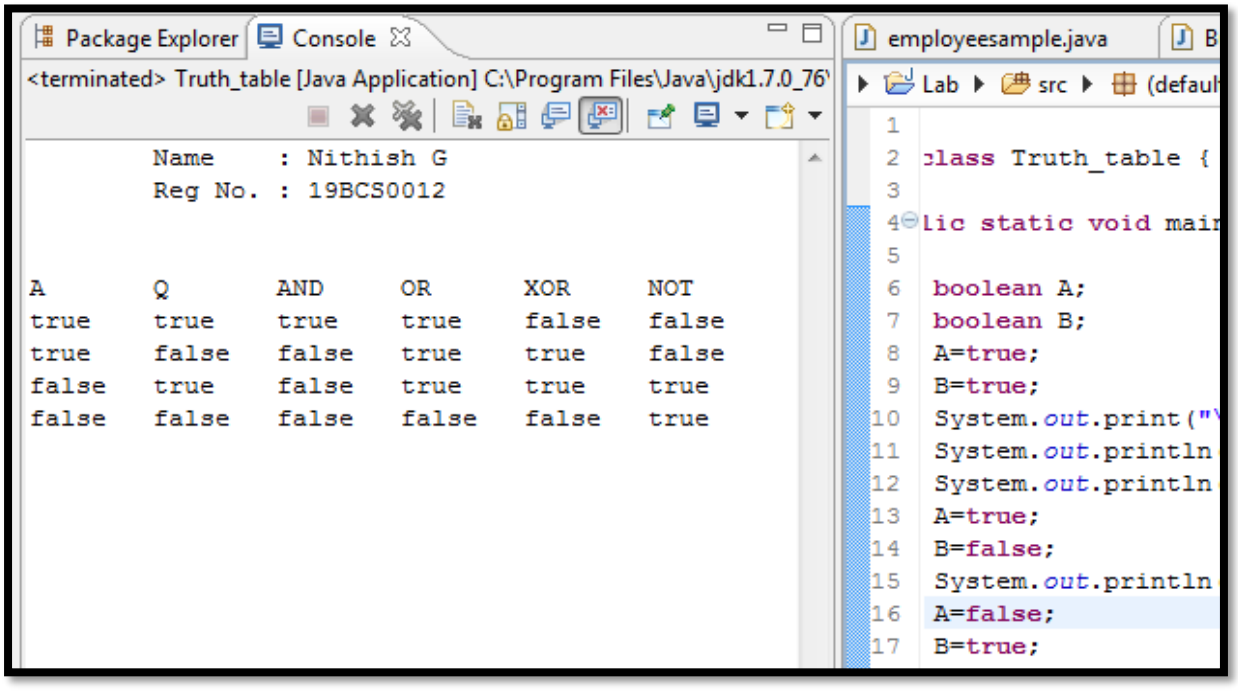


11. Write a java code to display the truth table of logic gates using logical operators as shown below.

SOURCE CODE :

```
public class Truth_table {

        public static void main(String[] args) {

                boolean A;
                boolean B;
                A=true;
                B=true;
                System.out.print("\tName      : Nithish G \n\tReg No.          : 19BCS0012\n");
                System.out.println("\n\nA\tQ\tAND\tOR\tXOR\tNOT");
                System.out.println((A)+"\t"+(B)+"\t"+(A&&B)+"\t"+(A|B)+"\t"+(A^B)+"\t"+(!A));
                A=true;
                B=false;
                System.out.println((A)+"\t"+(B)+"\t"+(A&&B)+"\t"+(A|B)+"\t"+(A^B)+"\t"+(!A));
                A=false;
                B=true;
                System.out.println((A)+"\t"+(B)+"\t"+(A&&B)+"\t"+(A|B)+"\t"+(A^B)+"\t"+(!A));
                A=false;
                B=false;
                System.out.println((A)+"\t"+(B)+"\t"+(A&&B)+"\t"+(A|B)+"\t"+(A^B)+"\t"+(!A));
                }
}
```

OUTPUT

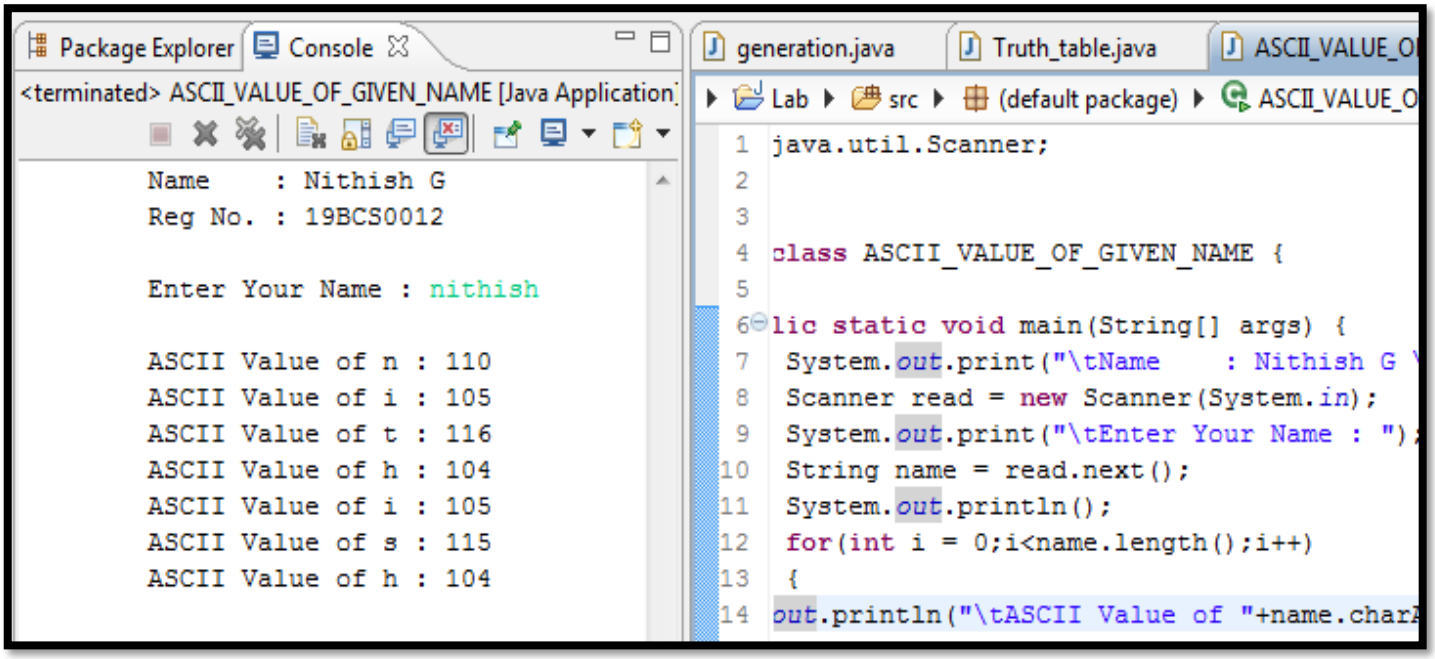


12. Print the ASCII values of the letters present in your name.

SOURCE CODE:

```
import java.util.Scanner;


public class ASCII_VALUE_OF_GIVEN_NAME {

	public static void main(String[] args) {
		System.out.print("\tName  : Nithish G \n\tReg No.      : 19BCS0012\n\n");
		Scanner read = new Scanner(System.in);
		System.out.print("\tEnter Your Name : ");
		String name = read.next();
		System.out.println();
		for(int i = 0;i<name.length();i++)
		{
System.out.println("\tASCII Value of "+name.charAt(i)+" : " + (int)(name.charAt(i)));
		}

	}

}
```

Output:



Lab-4

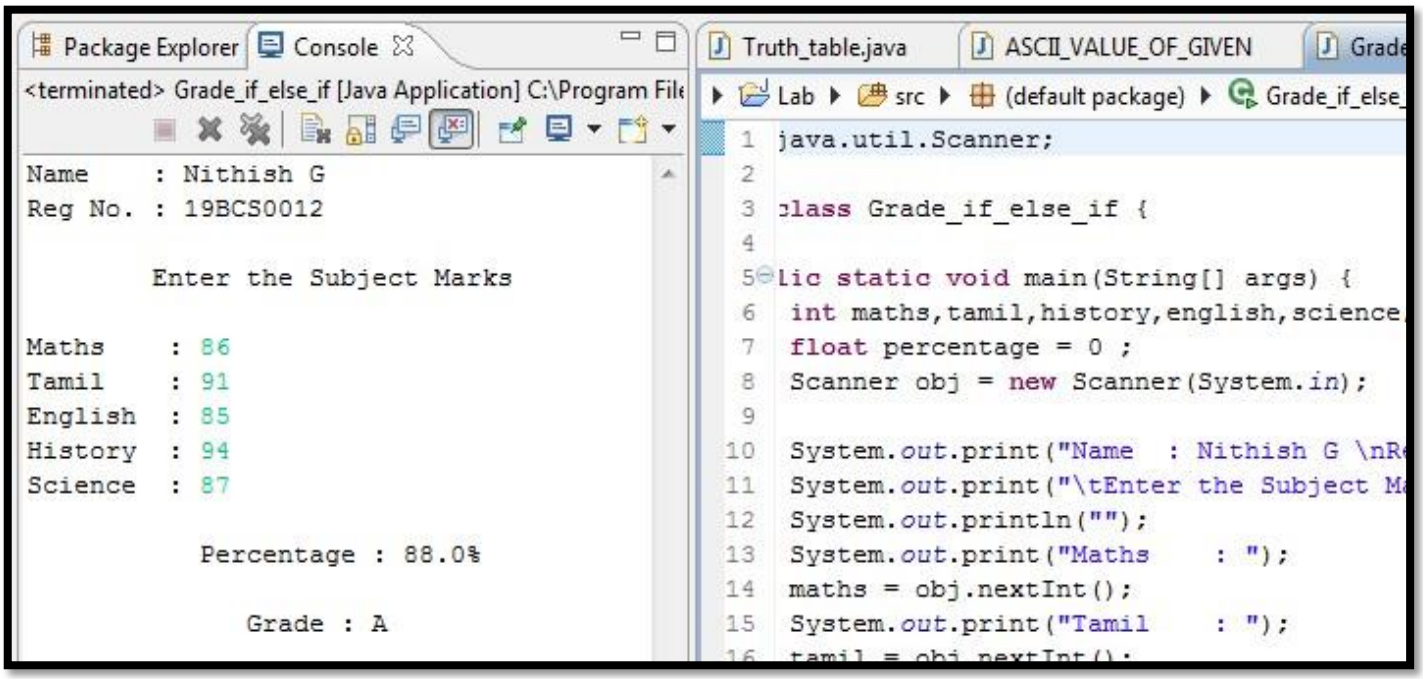
1. Write a Grade calculation program. Input to be taken as marks scored out of 100 in 5 subjects of a student. In case a student scores less than 50%, award him ‘D’ grade. If marks are between 50% & 60% then ‘C’ grade. If marks are between 60% and 80% then ‘B’ grade , otherwise if marks are between 80% and 100% then ‘A’ grade. (Do it using if & else if statements.)

Source code:

```
import java.util.Scanner;

public class Grade_if_else_if {
	public int percentage()
	{
		int maths,tamil,history,english,science;
		int percentage = 0 ;
		Scanner obj = new Scanner(System.in);

		System.out.print("Name     : Nithish G \nReg No.          : 19BCS0012\n\n");
		System.out.print("\tEnter the Subject Marks\n");
		System.out.println("");
		System.out.print("Maths    : ");
		maths = obj.nextInt();
		System.out.print("Tamil    : ");
		tamil = obj.nextInt();
		System.out.print("English : ");
		english = obj.nextInt();
		System.out.print("History : ");
		history = obj.nextInt();
		System.out.print("Science : ");
		science = obj.nextInt();
		percentage = (maths+tamil+history+english+science)/5;
		return percentage;
	}

	public static void main(String[] args) {

		Grade_if_else_if obj = new Grade_if_else_if();
		int percentage = 0;
```

```
            percentage = obj.percentage();

            System.out.println("\n\t Percentage : "+percentage+"%");
            if(percentage < 50 )
            {
                System.out.println("\n\t    Grade : D");
            }
            else if (percentage >50 && percentage < 60)
            {
                System.out.println("\n\t    Grade : C");
            }
            else if (percentage>60 && percentage < 80)
            {
                System.out.println("\n\t    Grade : B");
            }
            else if (percentage>80 && percentage < 100)
            {
                System.out.println("\n\t    Grade : A");
            }

    }

}
```

Output :



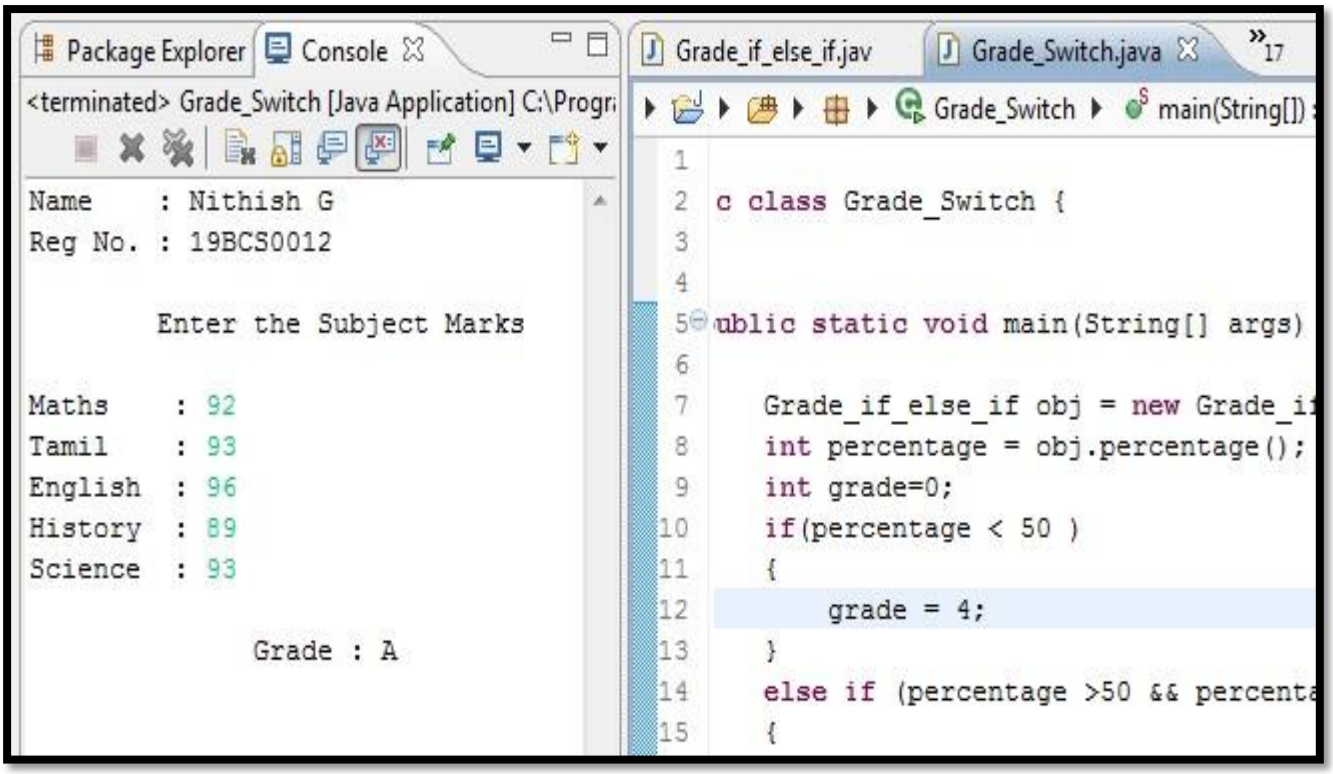
2. Repeat the above program using a ‘Switch’ statement.

Source code:

```
public class Grade_Switch {


     public static void main(String[] args) {

          Grade_if_else_if obj = new Grade_if_else_if();
          int percentage = obj.percentage();
          int grade=0;
          if(percentage < 50 )
          {
               grade = 4;
          }
          else if (percentage >50 && percentage < 60)
          {
               grade = 3;
          }
          else if (percentage>60 && percentage < 80)
          {
               grade = 2;
          }
          else if (percentage>80 && percentage < 100)
          {
               grade = 1;
          }
          switch(grade)
          {
          case 1 :
               System.out.println("\n\t      Grade : A");
               break;
          case 2 :
```

```
                System.out.println("\n\t      Grade : B");
                break;
            case 3 :
                System.out.println("\n\t      Grade : C");
                break;
            case 4:
                System.out.println("\n\t      Grade : D");
                break;
            default:
                System.out.println("Enter the appropriate Marks");
                }

    }

}
```

Output

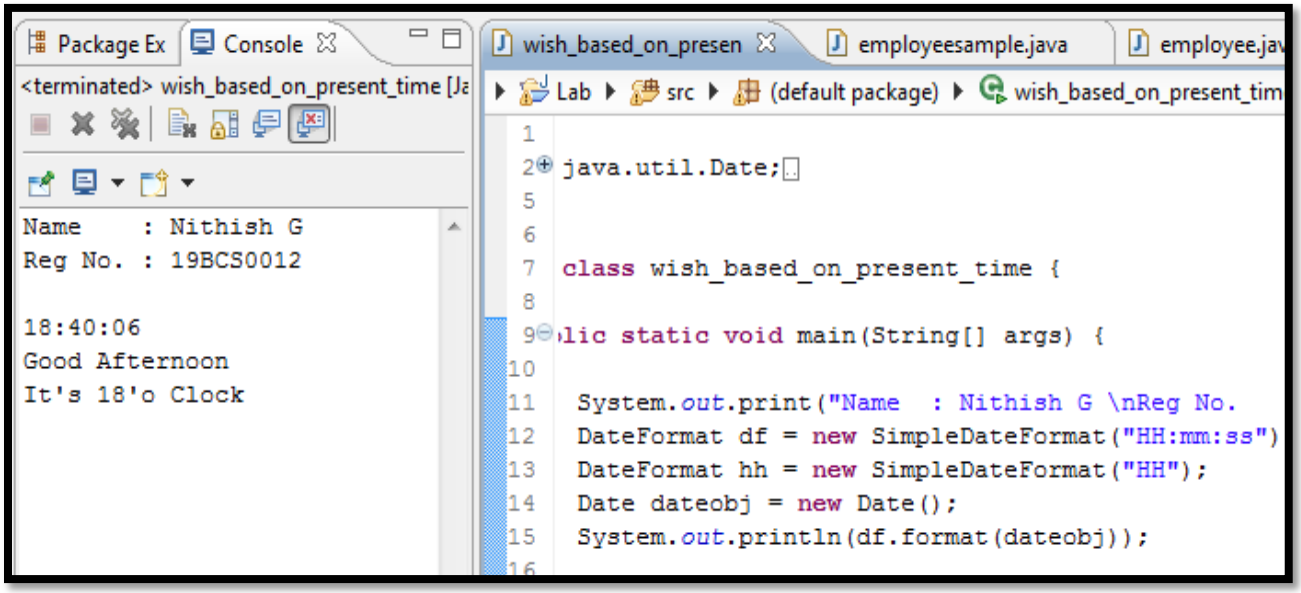


3. Write a program that will get ‘hour’, ‘minute’ and ‘second’ of the current timing from your PC. And will print the message ‘Good Morning’ in case hour is less that 12 noon, it will print ‘Good afternoon’ if hour is between 12 & 6 p.m. and will print ‘Good evening’ otherwise. Also it should print the current time.

Source Code:

```
import java.util.Date;
import java.text.DateFormat;
import java.text.SimpleDateFormat;

public class wish_based_on_present_time {

        public static void main(String[] args) {
                System.out.print("Name     : Nithish G \nReg No.          : 19BCS0012\n\n");
                DateFormat df = new SimpleDateFormat("HH");
                Date dateobj = new Date();
          int time = Integer.parseInt(df.format(dateobj));
                if (time<=12)
                        System.out.println("Good Moring \nIt's "+time+"'o Clock");
                else if((time>12) &&( time<=18))
                        System.out.println("Good Afternoon \nIt's "+time+"'o Clock");
                else
                        System.out.println("Good Evening \nIt's "+ (24-time)+"'o Clock");
        }       }
```

Output



Lab5:

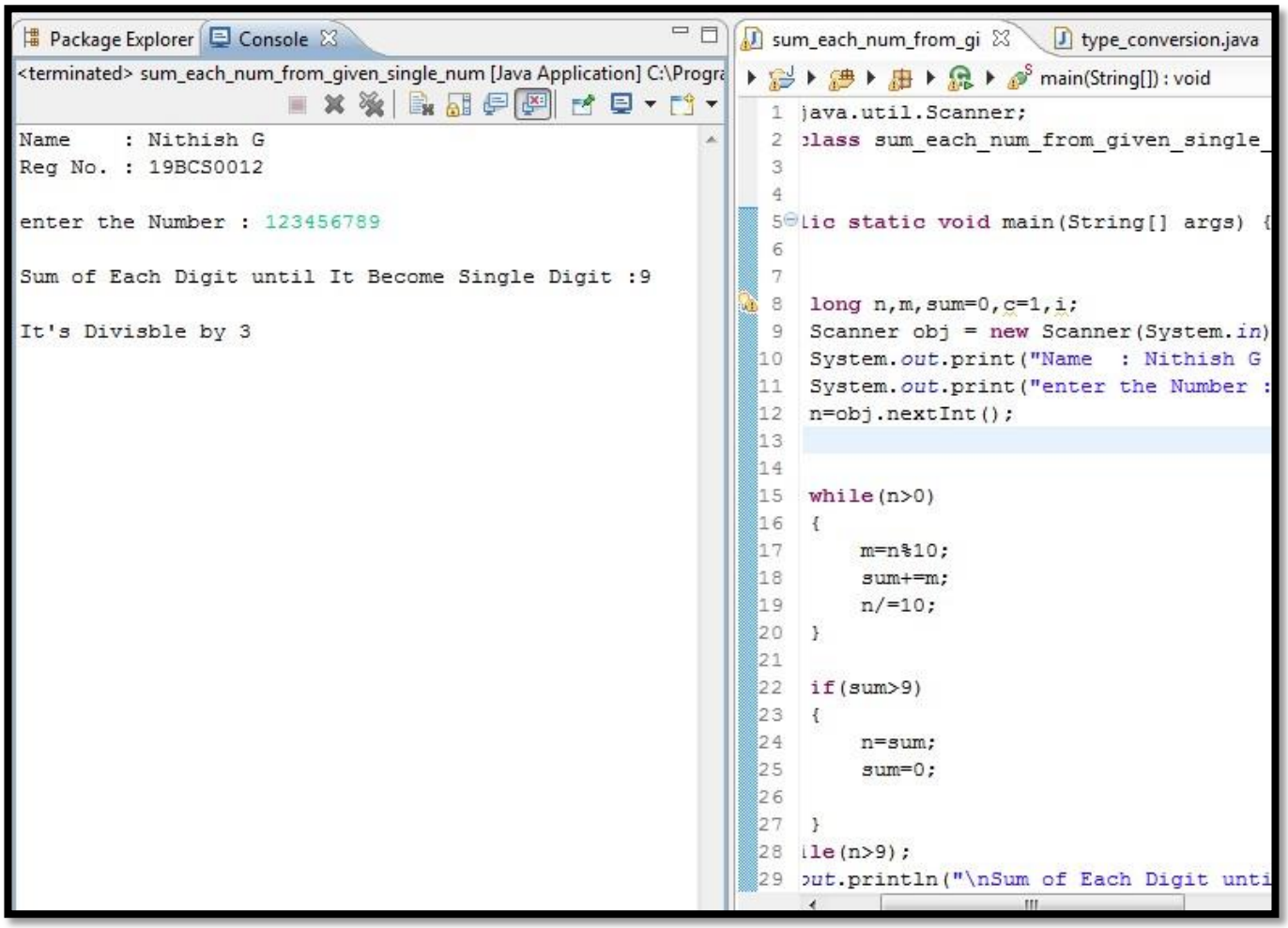
1. Write a program to check the divisibility of an integer by 3. Your program mustmake use of the fact that an integer is divisible by 3 if and only if the sum of its digits is divisible by 3. You must use this fact repeatedly, till the sum reduces to a single digit. For example, 123456789 is divisible by 3 if and only if 1 + 2 + 3 + 4 + 5 + 6 +7 + 8 + 9 = 45 is divisible by 3. Now, 45 is divisible by 3 if and only if 4 + 5 = 9 is divisible by 3. Observe that 9 is a single digit and is divisible by 3. Therefore, your program concludes that 123456789 is divisible by 3.

Source code:

```
import java.util.Scanner;
public class sum_each_num_from_given_single_num {


        public static void main(String[] args) {


                long n,m,sum=0,c=1,i;
                Scanner obj = new Scanner(System.in) ;
                System.out.print("Name        : Nithish G \nReg No. : 19BCS0012\n\n");
                System.out.print("enter the Number : ");
                n=obj.nextInt();

do{
                while(n>0)
                {
                        m=n%10;
                        sum+=m;
                        n/=10;
                }

                if(sum>9)
                {
                        n=sum;
                        sum=0;

                }
        }while(n>9);
```

```
System.out.println("\nSum of Each Digit until It Become Single Digit :"+sum);


        if(sum%3==0)
        System.out.println("\nIt's Divisble by 3");
        else
        System.out.println("It's not Divisble by 3");

        }

}
```

Output:

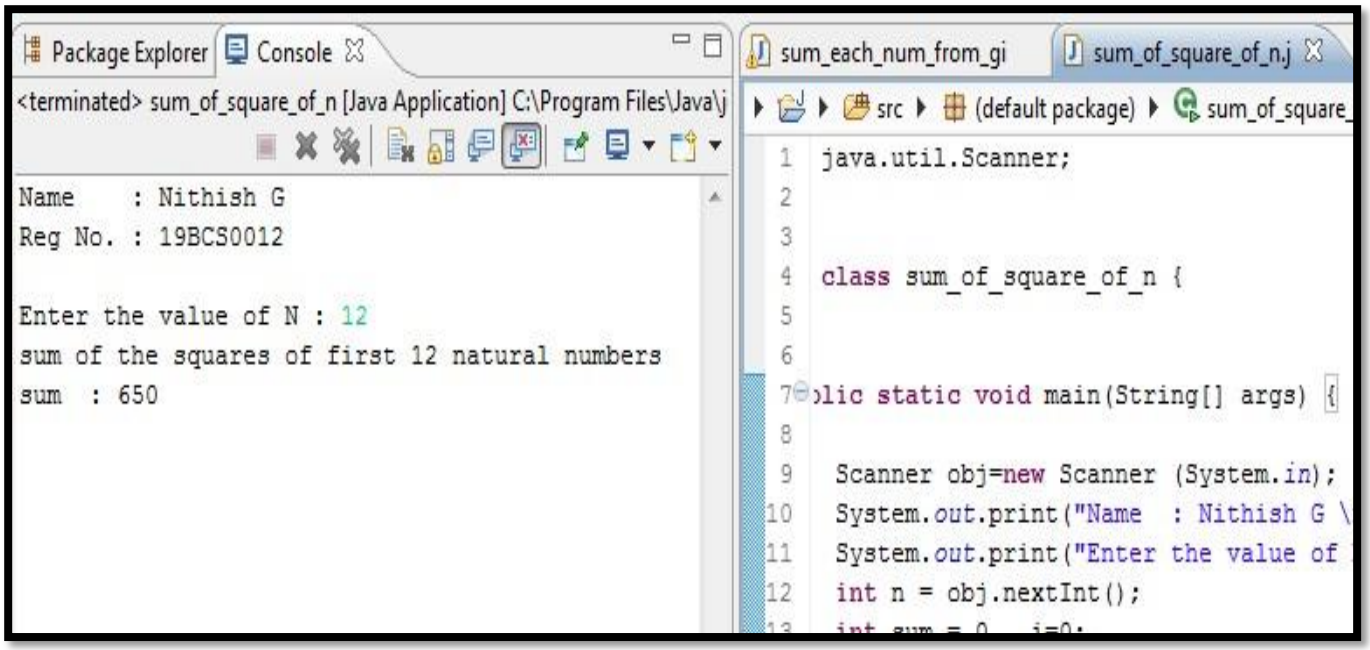


2. Write a Java program to print sum of the squares of first n natural numbers.

Source code

```
import java.util.Scanner;


public class sum_of_square_of_n {


        public static void main(String[] args) {

                Scanner obj=new Scanner (System.in);
                System.out.print("Name     : Nithish G \nReg No.          : 19BCS0012\n\n");
                System.out.print("Enter the value of N : ");
                int n = obj.nextInt();
                int sum = 0 , i=0;
                for(i=1;i<=n;i++)
                {
                        sum += i * i;
                }
                System.out.println("sum of the squares of first " +n+ " natural numbers " );
                System.out.println("sum : " +sum);
                }
}
```

Output:

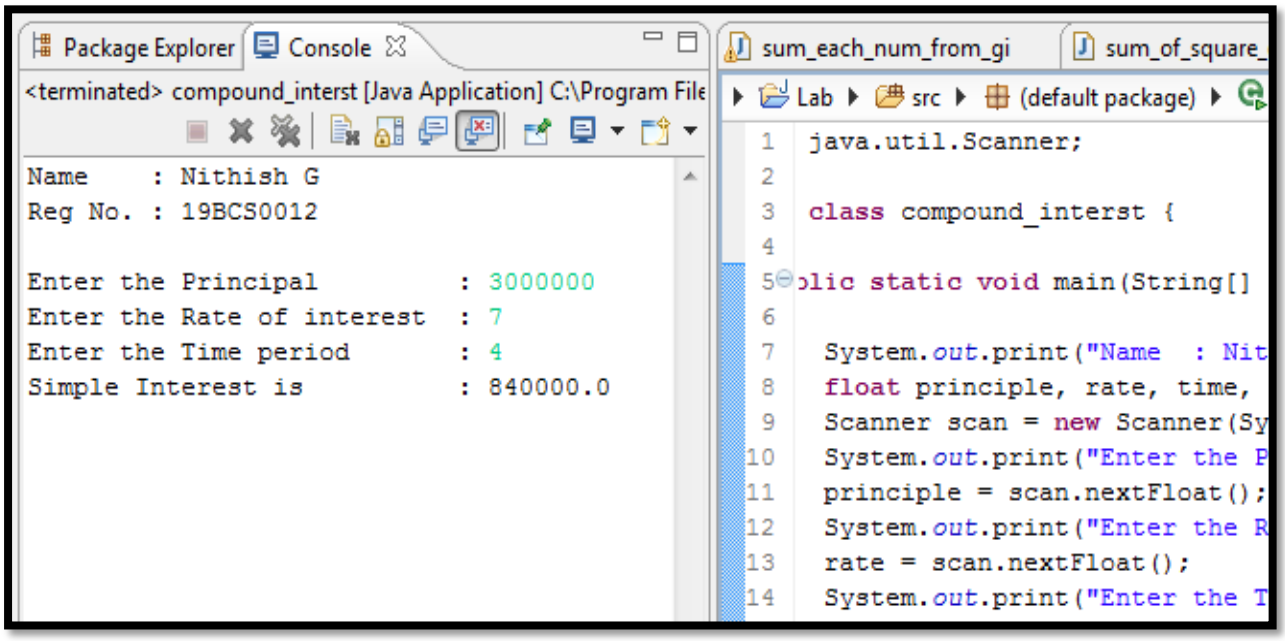


3. Write a Java program to find the maturity value of a principal(P) due to the rate of compound interest(r).

Source Code:

```
import java.util.Scanner;

public class compound_interst {

        public static void main(String[] args) {

                System.out.print("Name     : Nithish G \nReg No.          : 19BCS0012\n\n");
                float principle, rate, time, interest;
      Scanner scan = new Scanner(System.in);
      System.out.print("Enter the Principal        : ");
      principle = scan.nextFloat();
      System.out.print("Enter the Rate of interest : ");
      rate = scan.nextFloat();
      System.out.print("Enter the Time period      : ");
      time = scan.nextFloat();
      scan.close();
      interest = (principle * rate * time) / 100;
      System.out.print("Simple Interest is         : " +interest);
         }
}
```

Output:



Lab 6:

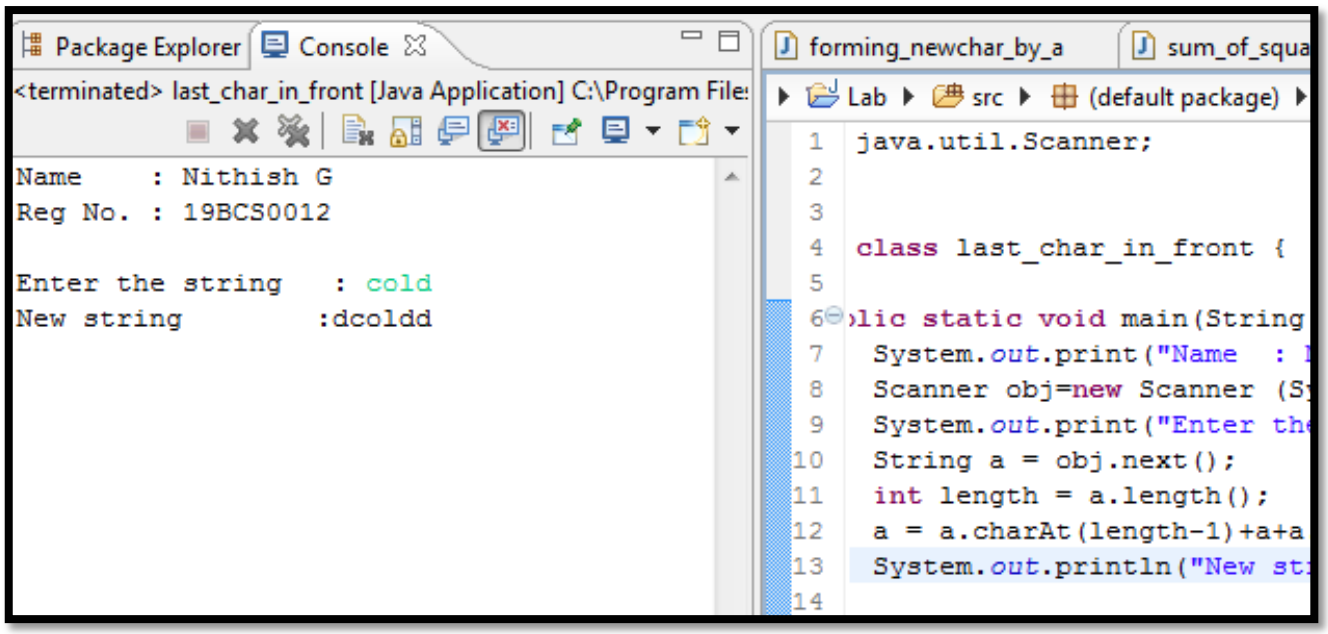
1. Get a string from the user and perform the following
(i) Take the last char and return a new string with the last char added at the front and back.("bat""tbatt")
(ii) Return a new string where the first and last chars have been exchanged. ("bat""tab")

Source code:

(i)

```
import java.util.Scanner;


public class last_char_in_front {

        public static void main(String[] args) {
                System.out.print("Name        : Nithish G \nReg No. : 19BCS0012\n\n");
                Scanner obj=new Scanner (System.in);
                System.out.print("Enter the string : ");
                String a = obj.next();
                int length = a.length();
                a = a.charAt(length-1)+a+a.charAt(length-1);
                System.out.println("New string       :" +a);

        }

}
```

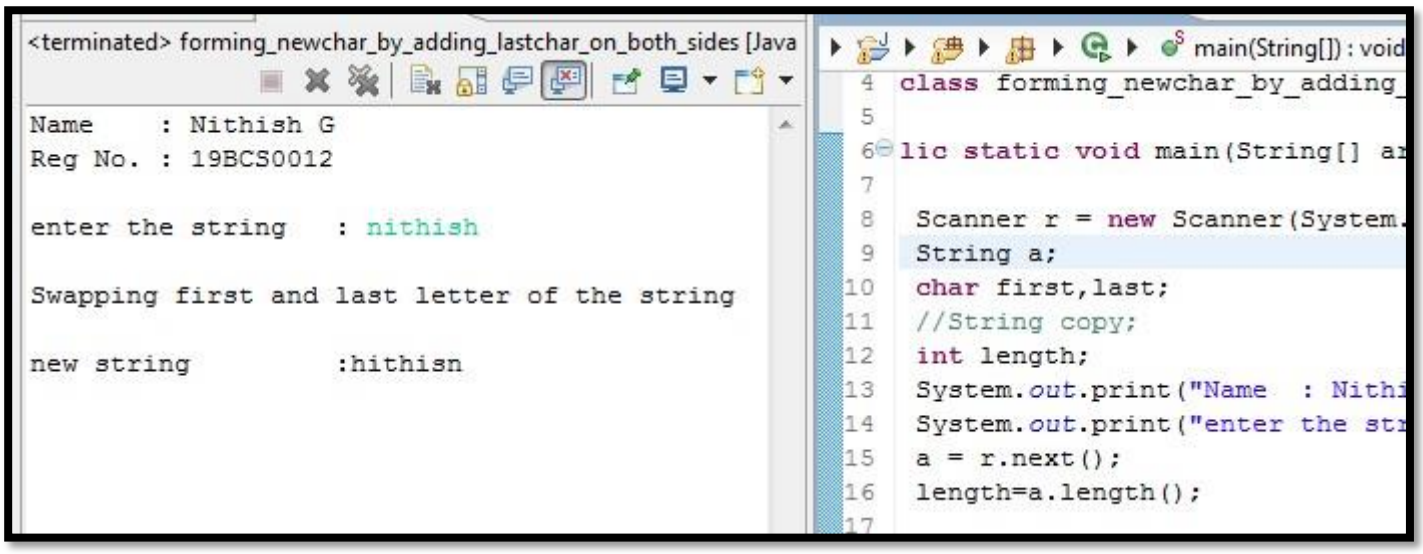
output:



(ii) Source code:

```
import java.util.Scanner;
public class forming_newchar_by_adding_lastchar_on_both_sides {

	public static void main(String[] args) {

		Scanner r = new Scanner(System.in);
		String a;
		char first,last;

		int length;
		System.out.print("Name	: Nithish G \nReg No. : 19BCS0012\n\n");
		System.out.print("enter the string  : ");
		a = r.next();
		length=a.length();

		char[]temp = a.toCharArray();
		first=a.charAt(0);
		last=a.charAt(length-1);
		temp[0] = last;
		temp[length-1]=first;
		a= String.valueOf(temp);
		System.out.println(a);
	}
}
```

(ii) Output



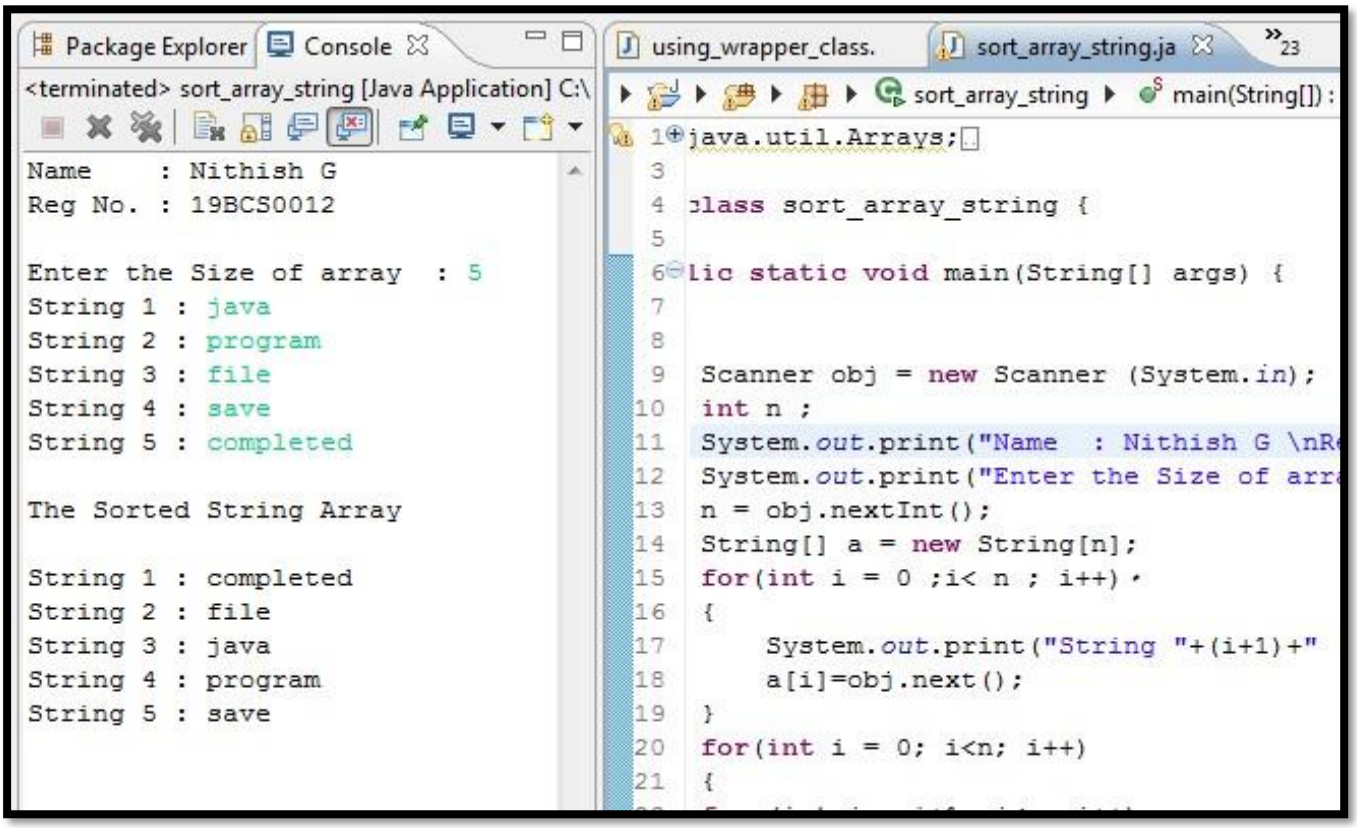
2. Write a Java Program to sort the string in a given array.

Source Code:

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


public class sort_array_string {


	public static void main(String[] args) {
		Scanner obj = new Scanner (System.in);
		int n ;
		System.out.print("Name        : Nithish G \nReg No. : 19BCS0012\n\n");
		System.out.print("Enter the Size of array : ");
		n = obj.nextInt();
		String[] a = new String[n];
		for(int i = 0 ;i< n ; i++)
		{
			System.out.print("String "+(i+1)+" : ");
			a[i]=obj.next();
		}
		for(int i = 0; i<n; i++)
		{
		for (int j = i+1; j<n; j++)
		{

		if(a[i].compareTo(a[j])>0)
		{

		String temp = a[i];
```

```
                a[i] = a[j];

                a[j] = temp;

                }

                }

                }

                System.out.println(" \nThe Sorted String Array \n");

                for(int i = 0 ;i< n ; i++)
                {
                        System.out.println("String "+(i+1)+" : "+a[i]);

                }
        }       }
```

Output:



Lab 7:

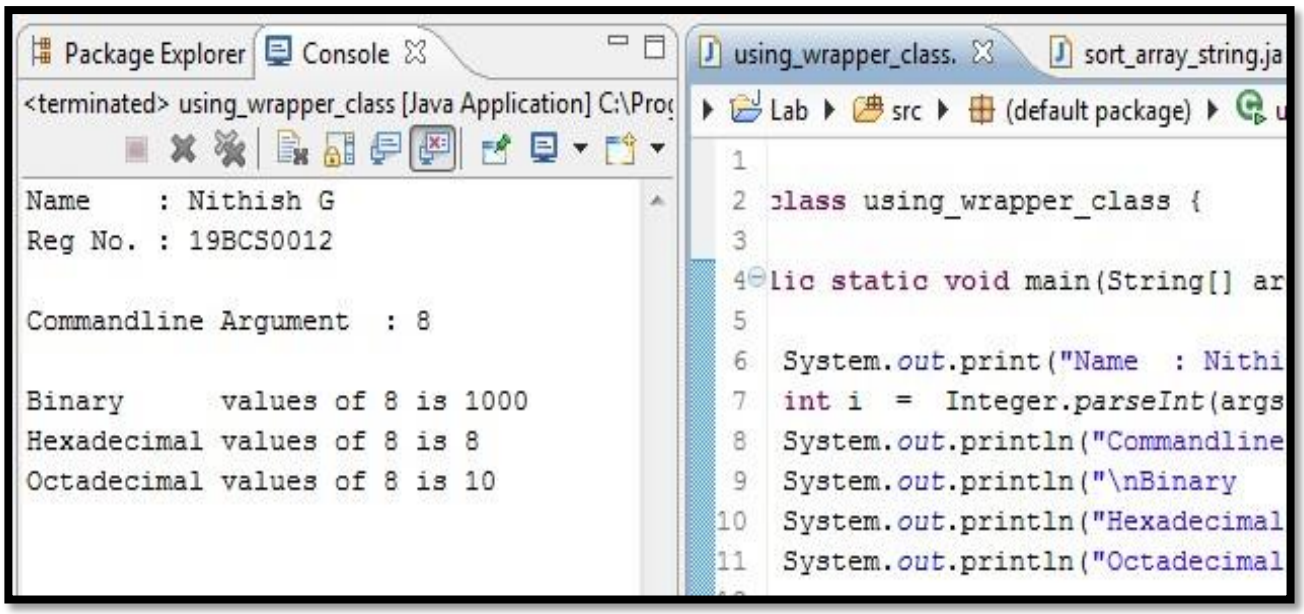
1. Write a program to receive an integer number as a command line argument, and print the binary, octal and hexadecimal equivalent of the given number using Wrapper Class.

Sample Output: java Test 20
Given Number :20
Binary equivalent :10100
Octal equivalent :24
Hexadecimal equivalent :14

Source Code:

```
public class using_wrapper_class {

	public static void main(String[] args) {

		System.out.print("Name	: Nithish G \nReg No. : 19BCS0012\n\n");
		int i = Integer.parseInt(args[0]);
		System.out.println("Commandline Argument  : "+args[0]);
		System.out.println("\nBinary	values of " +i+ " is " +Integer.toBinaryString(i));
		System.out.println("Hexadecimal values of " +i+ " is " +Integer.toHexString(i));
		System.out.println("Octadecimal values of " +i+ " is " +Integer.toOctalString(i));
	}
}
```

Output:



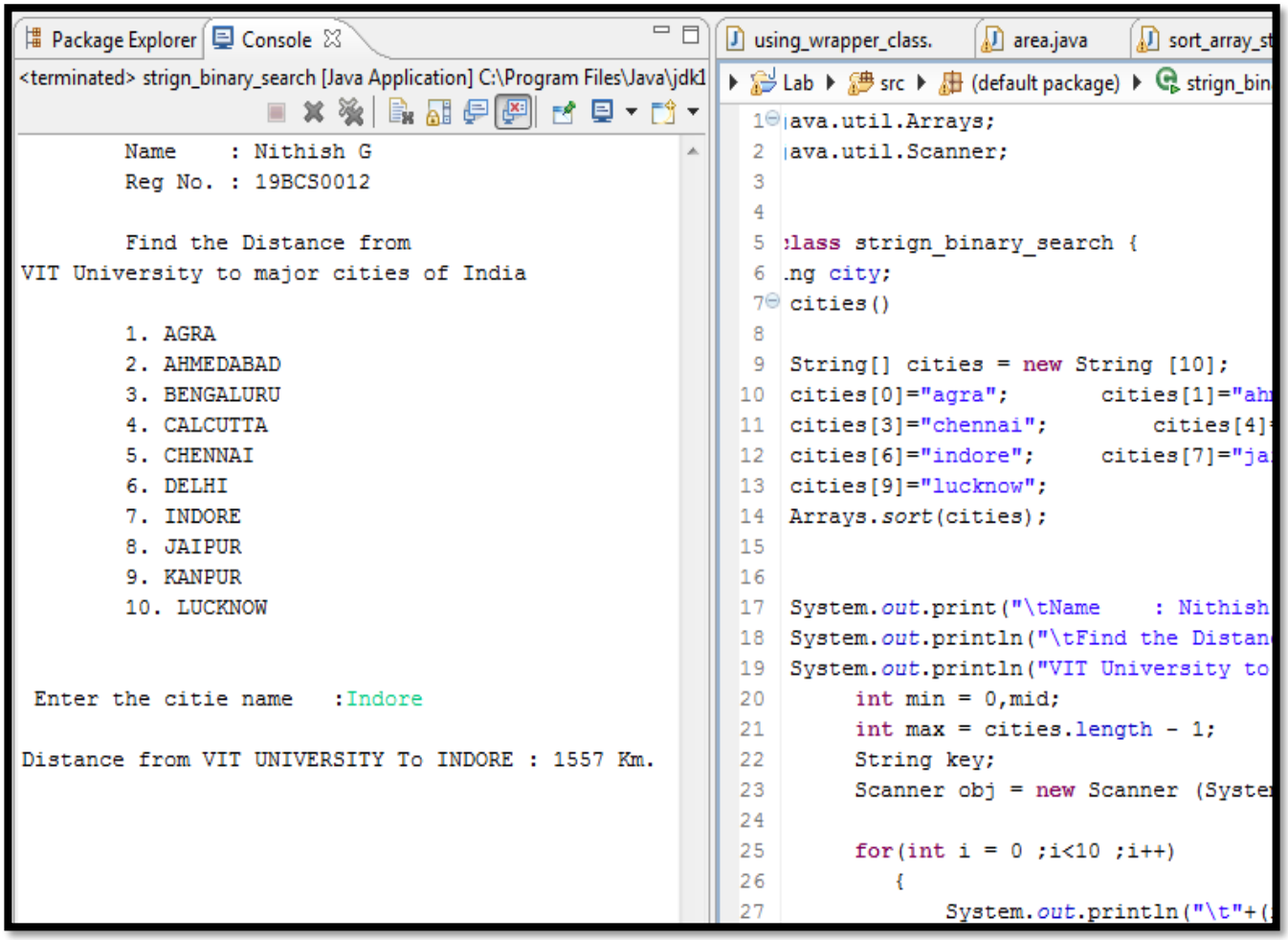
2. Write a Java code to find the distance from VIT University to major cities of India.
Hint: Create String array of major cities and integer array of distances. User gives the city name and the same is searched (use binary search) in the respective array and displays result.)

Source Code:

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


public class strign_binary_search {
	String city;
	int cities()
	{
		String[] cities = new String [10];
		cities[0]="agra";		cities[1]="ahmedabad";		cities[2]="bengaluru";
		cities[3]="chennai";		cities[4]="delhi";		cities[5]="calcutta";
		cities[6]="indore";		cities[7]="jaipur";	cities[8]="kanpur";
		cities[9]="lucknow";
		Arrays.sort(cities);


		System.out.print("\tName	: Nithish G \n\tReg No.		: 19BCS0012\n\n");
		System.out.println("\tFind the Distance from ");
		System.out.println("VIT University to major cities of India\n ");
			int min = 0,mid;
			int max = cities.length - 1;
			String key;
			Scanner obj = new Scanner (System.in);

			for(int i = 0 ;i<10 ;i++)
				{
					System.out.println("\t"+(i+1)+". "+(cities[i]).toUpperCase());
				}
			System.out.println("\n");
				System.out.print(" Enter the citie name :");
				key = obj.next();
				key = key.toLowerCase();
				while (min <= max) {
```

```
                mid = (min + max) / 2;
                if (cities[mid].compareTo(key) < 0)
                {
                        min = mid + 1;
                }
                else if (cities[mid].compareTo(key) > 0)
                {
                        max = mid - 1;
                }
                else
                {
                        city=cities[mid];
                        return mid;
                }
        }
        return -1;

    }

    public static void main(String[] args) {

        strign_binary_search obj = new strign_binary_search();

        int[] d = new int[10];
        d[0]= 1584;     d[1]= 1315;     d[2]= 211;
        d[3]= 137;      d[4]= 2222;     d[5]= 1750;
        d[6]= 1557;     d[7]= 2192;     d[8]= 1981;
        d[9]= 1975;


        int index = obj.cities();
        if(index!=-1)

    System.out.println("\nDistance from VIT UNIVERSITY To "+ (obj.city).toUpperCase()+" :
"+d[index]+" Km.");

        else
            System.out.println("You Entered the wrong city name ");

    }
}
```

Output:



3. Consider an int array first with possibly repeated values given by the user. Create a new array second that has each number in the first appear exactly once in their order of appearance. Display the second array.
For example, if values in first are 10, 20, 6, 7, 10, 8, 5, 6, 4, 7, 1, then the second has 10, 20, 6, 7, 8, 5, 4, 1.

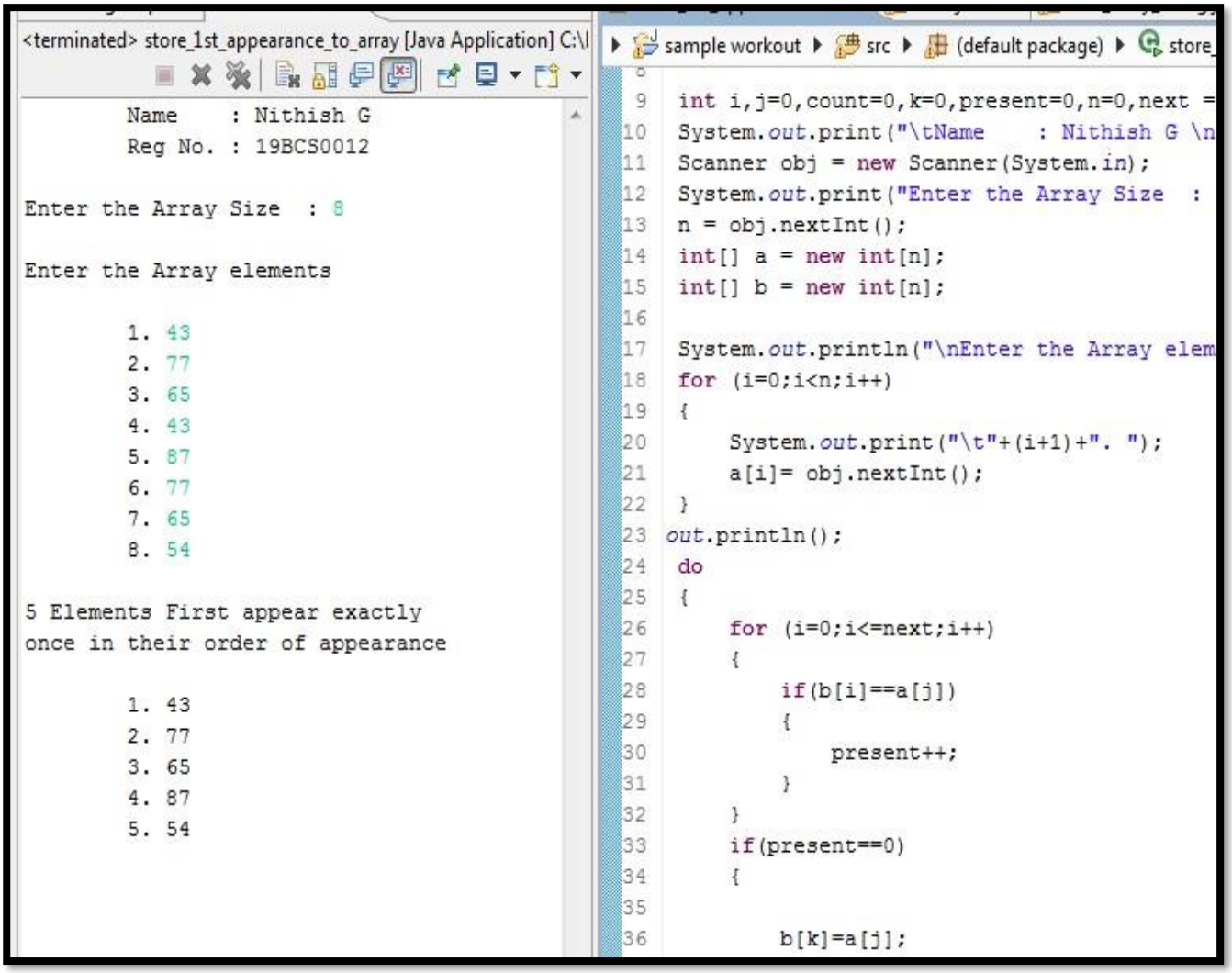
Source code:

```
import java.util.Scanner;

public class store_1st_appearance_to_array {

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

```
int i,j=0,count=0,k=0,present=0,n=0,next = 0,increment=0;
                System.out.print("\tName  : Nithish G \n\tReg No.       : 19BCS0012\n\n");
                Scanner obj = new Scanner(System.in);
                System.out.print("Enter the Array Size : ");
                n = obj.nextInt();
                int[] a = new int[n];
                int[] b = new int[n];

                System.out.println("\nEnter the Array elements \n");
                for (i=0;i<n;i++)
                {
                        System.out.print("\t"+(i+1)+". ");
                        a[i]= obj.nextInt();
                }
System.out.println();
                do
                {
                        for (i=0;i<=next;i++)
                        {
                                if(b[i]==a[j])
                                {
                                        present++;
                                }
                        }
                        if(present==0)
                        {

                                b[k]=a[j];
                                k++;
                                next++;
                                count++;
                        }
                        if(present>0)
                        {
                                present=0;
                        }
                        j++;
                  increment++;
```

```
            }while(increment<n);

            System.out.println("First appear exactly once in their order of appearance\n");
            for(i=0;i<count;i++)
            {
                  System.out.println("\t"+(i+1)+". "+b[i]);
            }

      }
}
```

Output:



LAB – 8

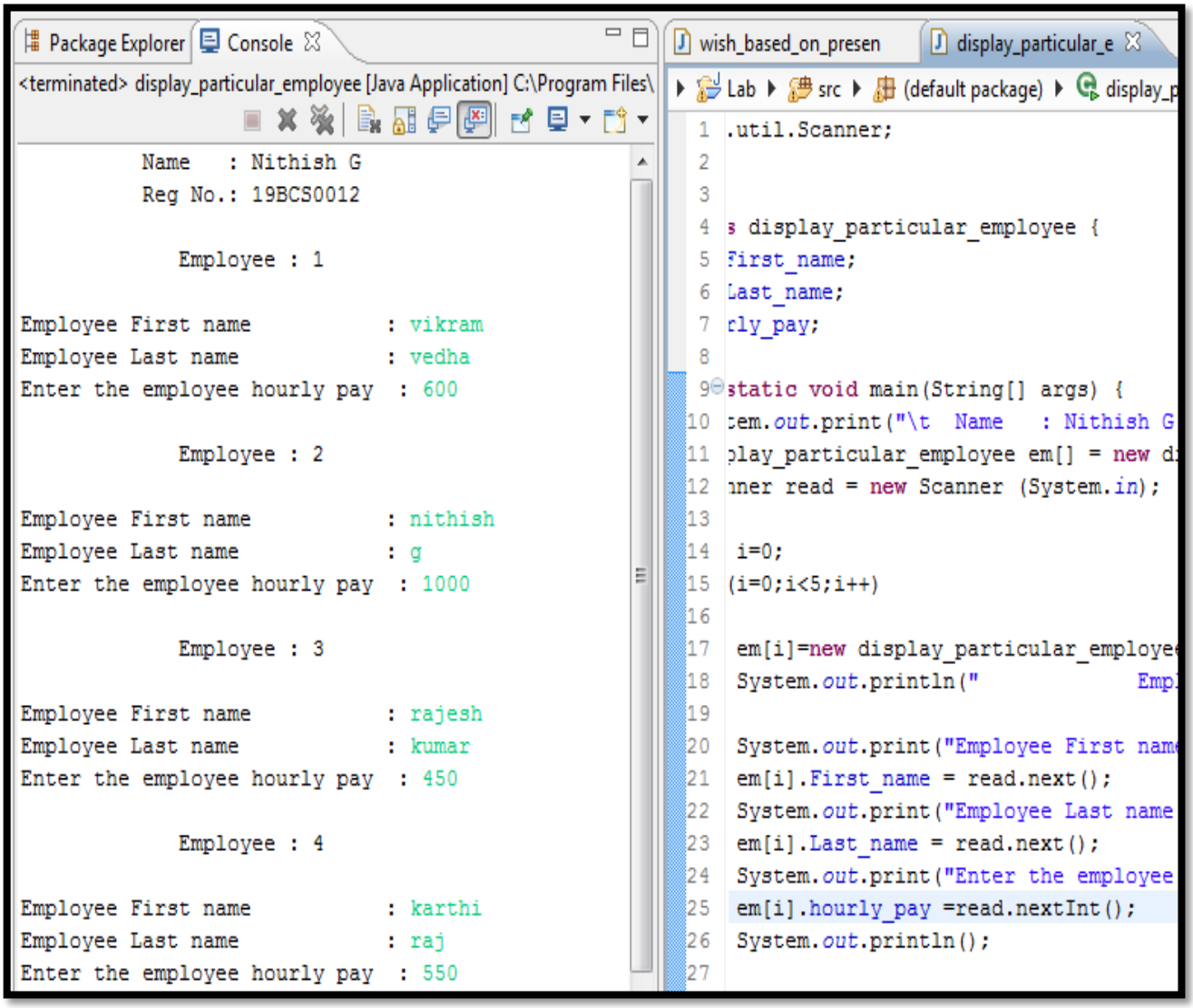
1. Create a class named Employee. Include data fields to hold the Employee's first name, last name, and hourly pay rate. Create an array of five Employee objects. Prompt the user to enter data for each Employee. Then prompt the user for the number of an Employee to view (1 through 5), and dis play the corresponding Employee's data.

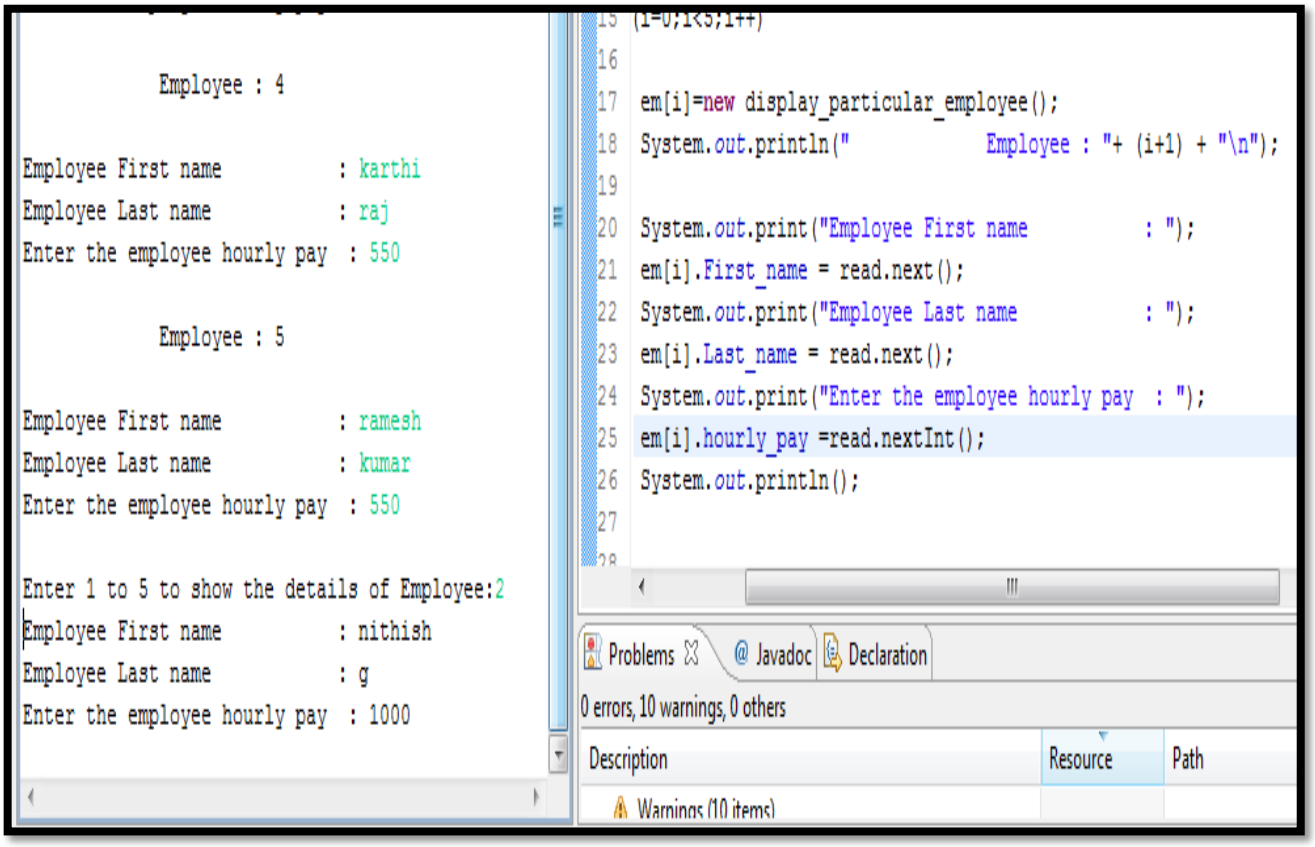
SOURCE CODE:

```
import java.util.Scanner;


public class display_particular_employee {
     String First_name;
     String Last_name;
     int hourly_pay;

     public static void main(String[] args) {

          display_particular_employee em[] = new
display_particular_employee[5];
          Scanner read = new Scanner (System.in);

          int i=0;
          for(i=0;i<5;i++)
          {
               em[i]=new display_particular_employee();
System.out.println("        Employee : "+ (i+1) + "\n");

System.out.print("Employee First name           : ");
em[i].First_name = read.next();
System.out.print("Employee Last name            : ");
em[i].Last_name = read.next();
System.out.print("Enter the employee hourly pay  : ");
     em[i].hourly_pay =read.nextInt();
          System.out.println();
          }
System.out.print("Enter 1 to 5 to show the details of
Employee:");
          int show=0;
          show = read.nextInt();
```

```
            show--;
System.out.println("Employee First name                 : "+
em[show].First_name);
System.out.println("Employee Last name                  : " +
em[show].Last_name);
System.out.println("Enter the employee hourly pay   :
"+em[show].hourly_pay);

      } }
```

OUTPUT:





2. Create a class named Employee. Include data fields to hold the Employee's ID number, first name, last name, and hourly pay rate. Create an array of five Employee objects. Prompt the user to enter data for each Employee. Do not allow duplicate ID numbers to be entered. Then prompt the user to choose whether to search for an Employee by (1) ID number, (2) last name, or (3) hourly pay. After the user chooses the field on which to search, prompt the user for the search value. Display an error message if there is no Employee with matching criteria, otherwise display all the data for every matching Employee (more than one Em ployee might have the same last name or pay rate)

```
import java.util.Scanner;

public class employee {

    String First_name;
    String Last_name;
    int hourly_pay,Id;
```

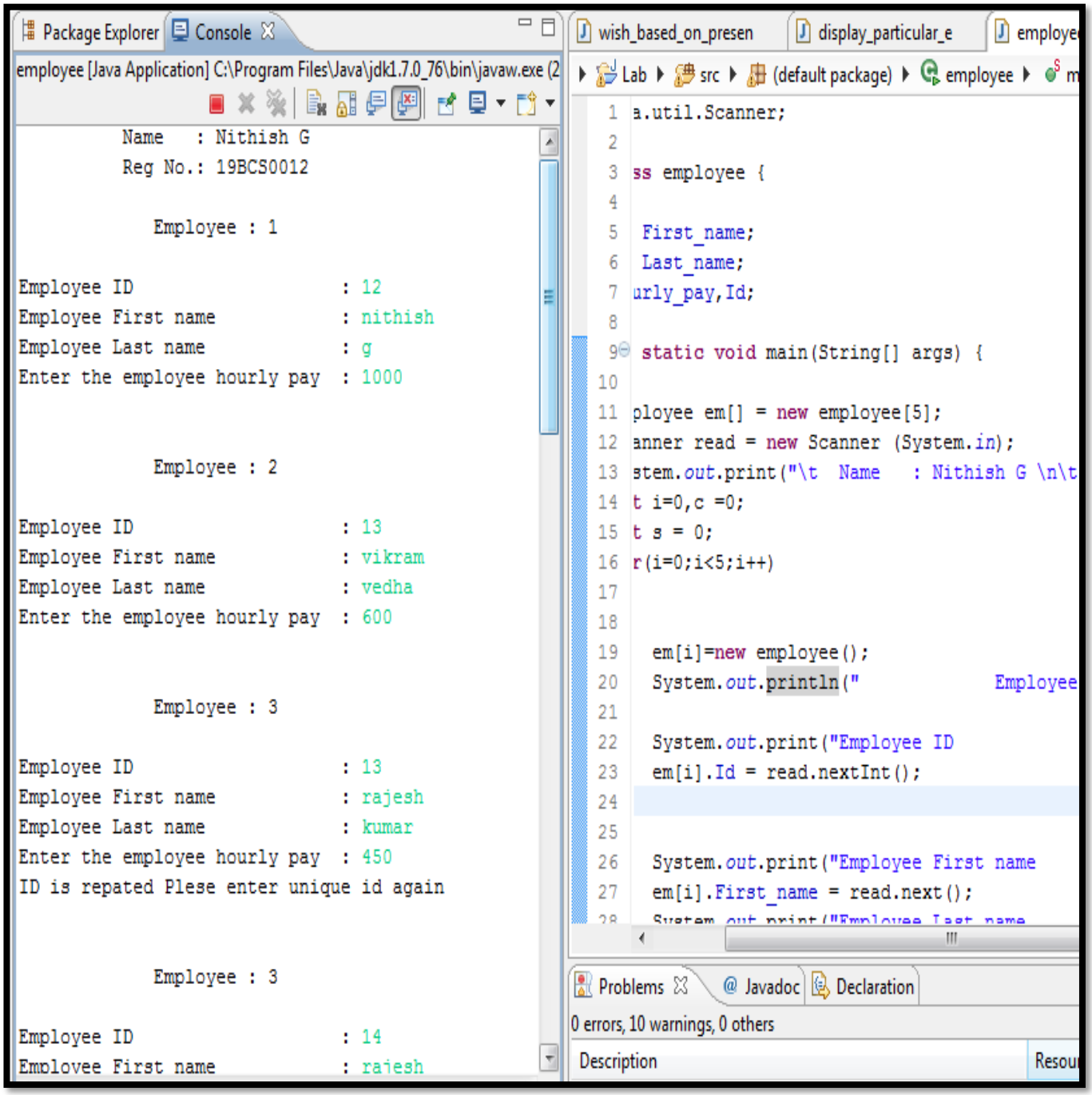
```
        public static void main(String[] args) {

                employee em[] = new employee[5];
                Scanner read = new Scanner (System.in);
                System.out.print("\t  Name          : Nithish G \n\t  Reg No.:
19BCS0012\n\n");
                int i=0,c =0;
                int s = 0;
                for(i=0;i<5;i++)
                {

                        em[i]=new employee();
                        System.out.println("          Employee : "+ (i+1) + "\n");

                        System.out.print("Employee ID                : ");
                        em[i].Id = read.nextInt();


                        System.out.print("Employee First name          : ");
                        em[i].First_name = read.next();
                        System.out.print("Employee Last name          : ");
                        em[i].Last_name = read.next();
                        System.out.print("Enter the employee hourly pay  : ");
                        em[i].hourly_pay =read.nextInt();
                        for(c=0;c<i;c++)
                        {
                                if(em[i].Id==em[c].Id)
                                {
                                System.out.println("ID is repated Plese enter unique id
again");

                                i--;
                                }

                        }
                        System.out.println("\n");
                }
                int count =1;
                for(int r = 0; r<count; r++)
                {
                System.out.println("Choose the option to search the employee by ");
```

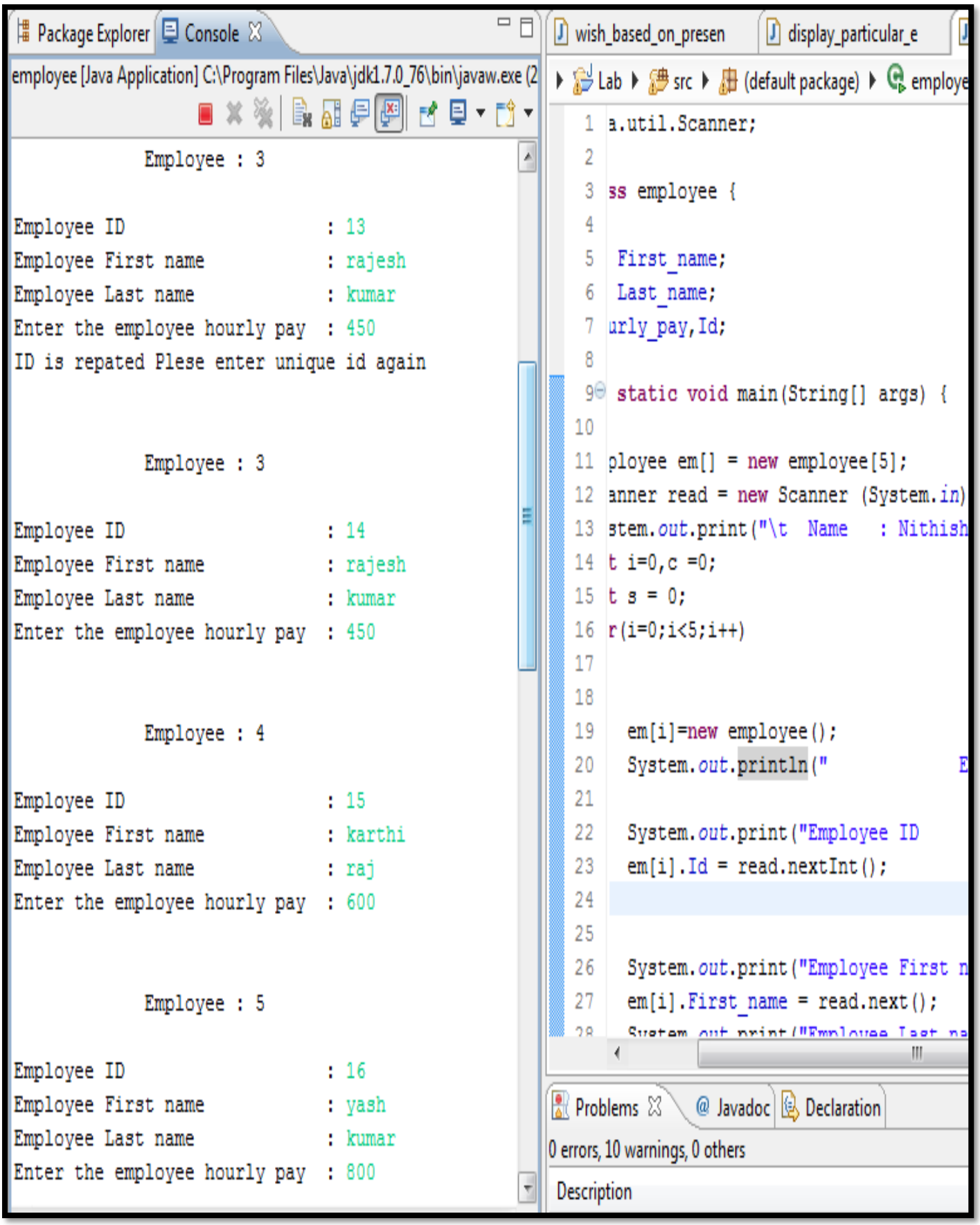
```
            System.out.println("1. Employee ID\n2. Employee Last
Name\n3.Employee hourly pay");
            System.out.print("choice : ");
            int ch=0;
            ch = read.nextInt();

            switch(ch)
            {
            case 1 :

                                    System.out.print("Enter the Employee ID : ");
                                    int sId = read.nextInt();

                                    for(i=0;i<5;i++)
                                    {
                                            if(sId==em[i].Id)
                                            {
System.out.println("\nThis Employee ID belong's to ");
System.out.println("Employee ID          : "+em[i].Id);
System.out.println("Employee First name    : "+em[i].First_name);
System.out.println("Employee Last name     : "+em[i].Last_name);
System.out.println("Employee Hourly pay     : "+em[i].hourly_pay);
                                                    s=1;
                                            }
                                    }
                                    if(s==0)
                                    {
                                            System.out.println(" The data is not found ");
                                    }
                                    break;
            case 2:

                    System.out.print("Enter the Employee Last name : ");
                    String sln = read.next();
                    for(i=0;i<5;i++)
                    {
                            if(sln.equals(em[i].Last_name))
                            {
                                    System.out.println("\nThis Employee Last name
belongs to ");
```

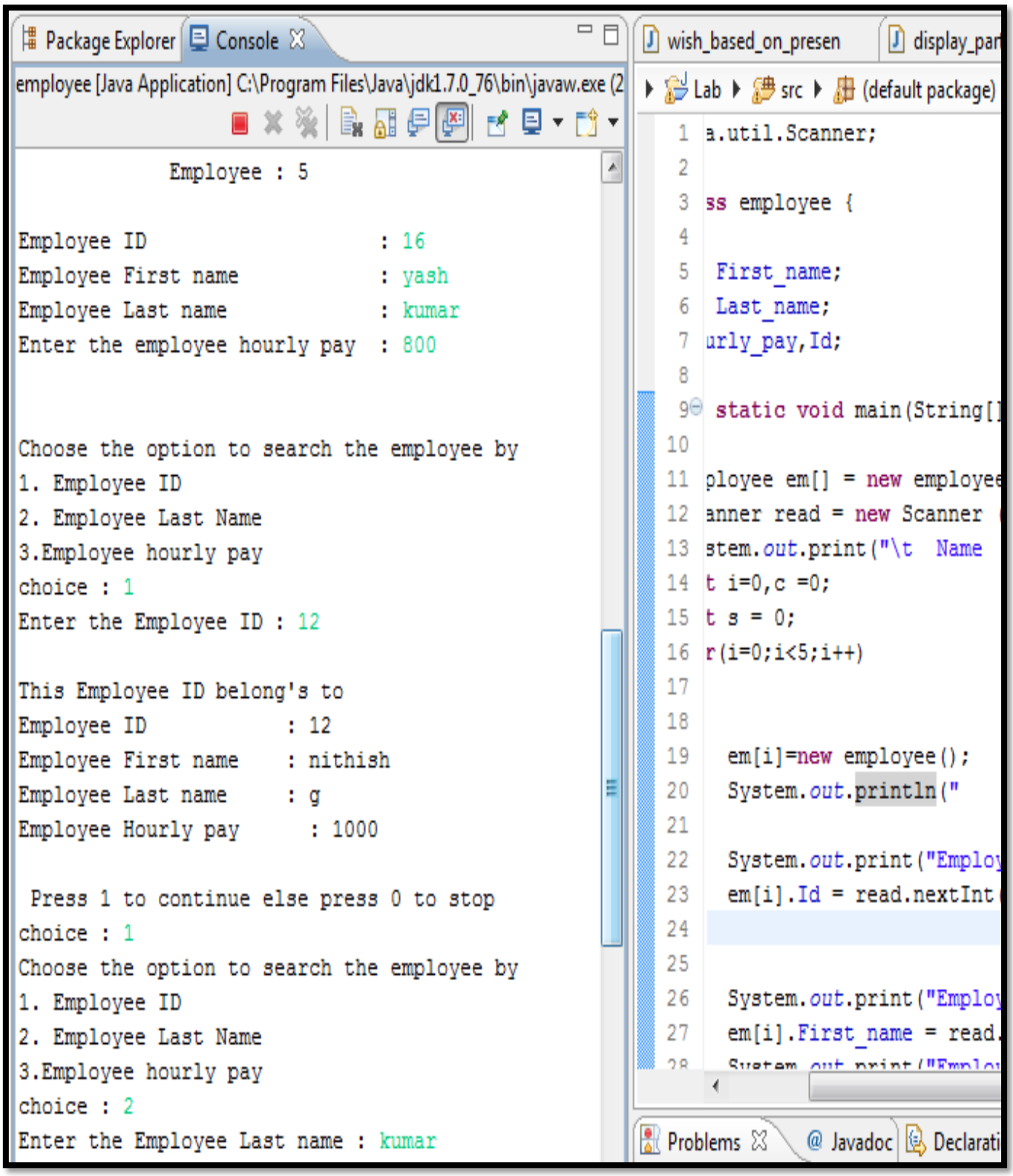
```
System.out.println("Employee First name    : "+em[i].First_name);
System.out.println("Employee Last name    : "+em[i].Last_name);
System.out.println("Employee Hour pay     : "+em[i].hourly_pay);
                                        s=1;
                                }
                        }
                        if(s==0)
                        {
                                System.out.println(" \nThe data is not found ");
                        }

                        break;

                case 3:

                        System.out.print("\nEnter the Employee hourly pay : ");
                        int shp = read.nextInt();
                        for(i=0;i<5;i++)
                        {
                                if(shp ==em[i].hourly_pay)
                                {
System.out.println("\nThis Employee Hourly belongs to ");
System.out.println("Employee First name    : "+em[i].First_name);
System.out.println("Employee Last  name    : "+em[i].Last_name);
System.out.println("Employee Hour pay     : "+em[i].hourly_pay);
                                        s=1;
                                }
                        }
                        if(s==0)
                        {
                                System.out.println(" \nThe data is not found ");
                        }
                        break;
                default:
                        System.out.print("\nPlease enter the correct choice :");

                }

                System.out.println("\n Press 1 to continue else press 0 to stop");
                System.out.print("choice : ");
```

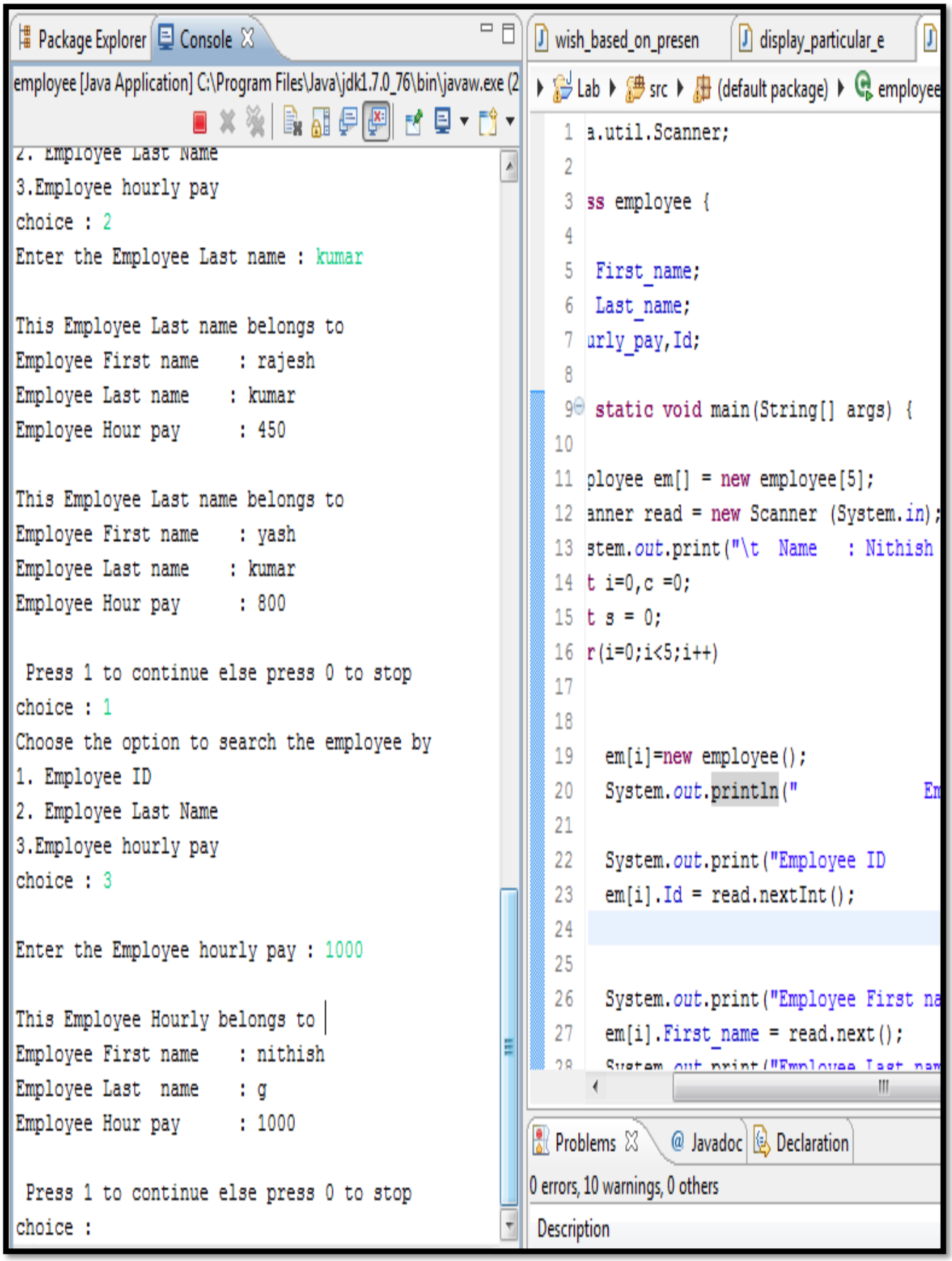
```
                int temp = read.nextInt();
                count+=temp;
                }
}
}
```

OUTPUT:




Package Explorer
Console
employee [Java Application] C:\Program Files\Java\jdk1.7.0_76\bin\javaw.exe (2
Employee : 3
Employee ID : 13
Employee First name : rajesh
Employee Last name : kumar
Enter the employee hourly pay : 450
ID is repated Plese enter unique id again
Employee : 3
Employee ID : 14
Employee First name : rajesh
Employee Last name : kumar
Enter the employee hourly pay : 450
Employee : 4
Employee ID : 15
Employee First name : karthi
Employee Last name : raj
Enter the employee hourly pay : 600
Employee : 5
Employee ID : 16
Employee First name : yash
Employee Last name : kumar
Enter the employee hourly pay : 800
wish_based_on_presen
display_particular_e
Lab
src
(default package)
employe
a.util.Scanner;
ss employee {
First_name;
Last_name;
urly_pay,Id;
static void main(String[] args) {
ployee em[] = new employee[5];
anner read = new Scanner (System.in)
stem.out.print("\t Name : Nithish
t i=0,c =0;
t s = 0;
r(i=0;i<5;i++)
em[i]=new employee();
System.out.println("
System.out.print("Employee ID
em[i].Id = read.nextInt();
System.out.print("Employee First n
em[i].First_name = read.next();
Problems
Javadoc
Declaration
0 errors, 10 warnings, 0 others
Description


Package Explorer
Console
employee [Java Application] C:\Program Files\Java\jdk1.7.0_76\bin\javaw.exe (2
Employee : 5
Employee ID : 16
Employee First name : yash
Employee Last name : kumar
Enter the employee hourly pay : 800
Choose the option to search the employee by
1. Employee ID
2. Employee Last Name
3.Employee hourly pay
choice : 1
Enter the Employee ID : 12
This Employee ID belong's to
Employee ID : 12
Employee First name : nithish
Employee Last name : g
Employee Hourly pay : 1000
Press 1 to continue else press 0 to stop
choice : 1
Choose the option to search the employee by
1. Employee ID
2. Employee Last Name
3.Employee hourly pay
choice : 2
Enter the Employee Last name : kumar
wish_based_on_presen
display_par
Lab
src
(default package)
a.util.Scanner;
ss employee {
First_name;
Last_name;
urly_pay,Id;
static void main(String[]
ployee em[] = new employee
anner read = new Scanner
stem.out.print("\t Name
t i=0,c =0;
t s = 0;
r(i=0;i<5;i++)
em[i]=new employee();
System.out.println("
System.out.print("Emplo
em[i].Id = read.nextInt
System.out.print("Emplo
em[i].First_name = read.
Problems
Javadoc
Declarati


Package Explorer
Console
employee [Java Application] C:\Program Files\Java\jdk1.7.0_76\bin\javaw.exe (2
2. Employee Last Name
3.Employee hourly pay
choice : 2
Enter the Employee Last name : kumar
This Employee Last name belongs to
Employee First name : rajesh
Employee Last name : kumar
Employee Hour pay : 450
This Employee Last name belongs to
Employee First name : yash
Employee Last name : kumar
Employee Hour pay : 800
Press 1 to continue else press 0 to stop
choice : 1
Choose the option to search the employee by
1. Employee ID
2. Employee Last Name
3.Employee hourly pay
choice : 3
Enter the Employee hourly pay : 1000
This Employee Hourly belongs to
Employee First name : nithish
Employee Last name : g
Employee Hour pay : 1000
Press 1 to continue else press 0 to stop
choice :
wish_based_on_presen
display_particular_e
Lab
src
(default package)
employee
a.util.Scanner;
ss employee {
First_name;
Last_name;
urly_pay,Id;
static void main(String[] args) {
ployee em[] = new employee[5];
anner read = new Scanner (System.in);
stem.out.print("\t Name : Nithish
t i=0,c =0;
t s = 0;
r(i=0;i<5;i++)
em[i]=new employee();
System.out.println("
System.out.print("Employee ID
em[i].Id = read.nextInt();
System.out.print("Employee First na
em[i].First_name = read.next();
Problems
Javadoc
Declaration
0 errors, 10 warnings, 0 others
Description