

Q1: - wap to demonstrate ternary operator. define a variable mark. ask its value from user and using ternary operator check if marks > 40 store "Pass" in result variable else store "Fail"

```
package ternary operator;
import java.util. Scanner;
/* Write a program to demonstrate ternary operator. define a variable mark
. ask its value from user and using ternary operator check
if marks > 40 store "Pass" in result variable else store "Fail"
*/
public class passfail {
    static int marks;
    public static void main(String[] args) {

        System.out.println("Enter The marks");
        Scanner s = new Scanner(System.in);
        marks = s.nextInt();

        if(marks>40)
            System.out.println("Pass");
        else {
            System.out.println("Fail");
        }
    }
}
```

The screenshot shows the Eclipse IDE with a project named 'MRT CDAC March 2023'. The source code for 'passfail.java' is displayed in the editor, matching the code provided in the previous block. The console window on the right shows the execution output: 'Enter The marks' followed by '56' (the input) and 'Pass' (the result). The status bar at the bottom indicates the system is at 19°C, clear, and the time is 1:24 AM on 24-Mar-23.

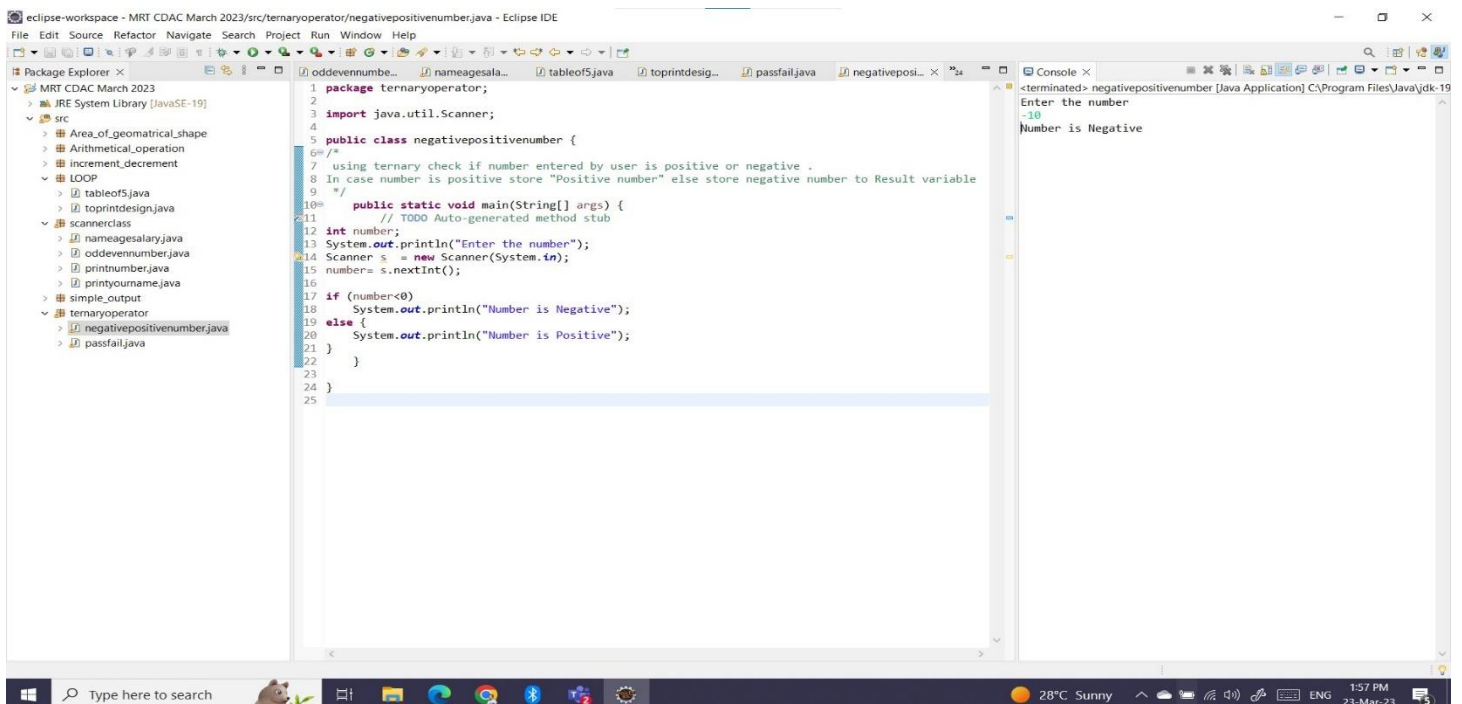
Q2:- using ternary check if number entered by user is positive or negative. In case number is positive store "Positive number" else store negative number to Result variable.

```
package ternaryoperator;

import java.util.Scanner;

public class negativepositivenumber {
    /*
     * using ternary check if number entered by user is positive or negative.
     * In case number is positive store "Positive number" else store negative number to Result variable
     */
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        int number;
        System.out.println("Enter the number");
        Scanner s = new Scanner(System.in);
        number = s.nextInt();

        if (number < 0)
            System.out.println("Number is Negative");
        else {
            System.out.println("Number is Positive");
        }
    }
}
```



Q3: - WAP to ask name, age and salary of an employee and print on console.

```
package scannerclass;

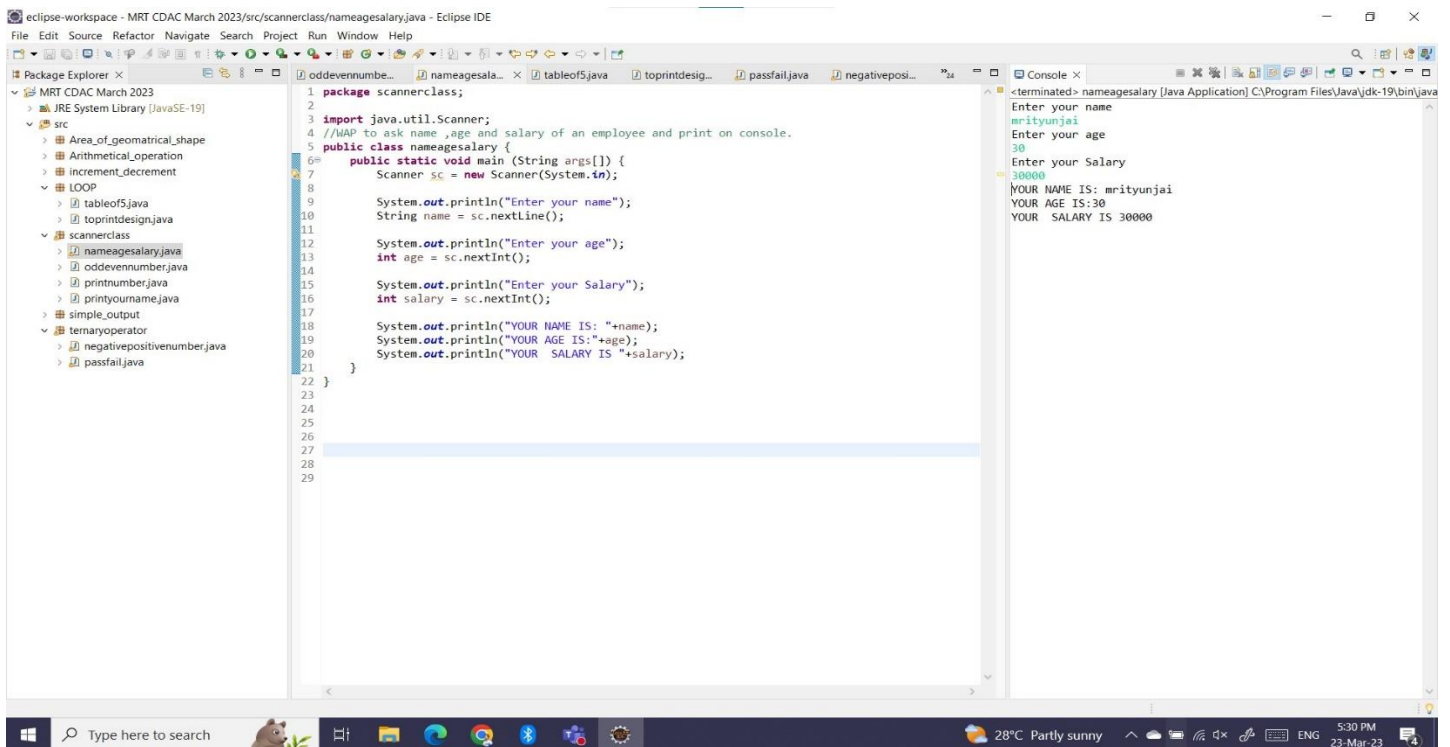
import java.util.Scanner;
//WAP to ask name, age and salary of an employee and print on console.
public class nameagesalary {
    public static void main (String args[]) {
        Scanner sc = new Scanner(System.in);

        System.out.println("Enter your name");
        String name = sc.nextLine();

        System.out.println("Enter your age");
        int age = sc.nextInt();

        System.out.println("Enter your Salary");
        int salary = sc.nextInt();

        System.out.println("YOUR NAME IS: "+name);
        System.out.println("YOUR AGE IS:"+age);
        System.out.println("YOUR SALARY IS "+salary);
    }
}
```

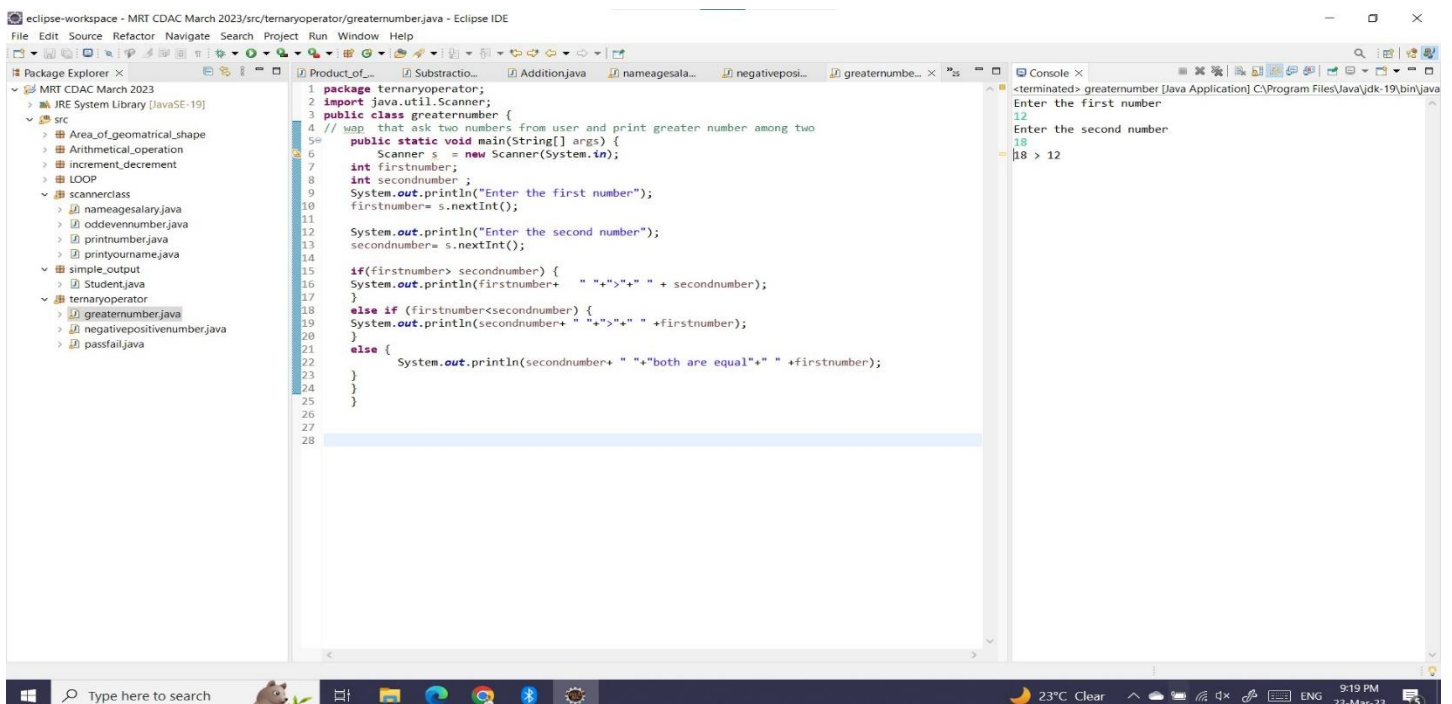


Q4: wap that ask two numbers from user and print greater number among two.

```
package ternaryoperator;
import java.util.Scanner;
public class greaternumber {
// wap that ask two numbers from user and print greater number among two
    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        int firstnumber;
        int secondnumber;
        System.out.println("Enter the first number");
        firstnumber= s.nextInt();

        System.out.println("Enter the second number");
        secondnumber= s.nextInt();

        if(firstnumber> secondnumber) {
            System.out.println(firstnumber+ " "+">"+ " " + secondnumber);
        }
        else if (firstnumber<secondnumber) {
            System.out.println(secondnumber+ " "+">"+ " " +firstnumber);
        }
        else {
            System.out.println(secondnumber+ " "+"both are equal"+ " " +firstnumber);
        }
    }
}
```



Q5: - wap to ask product name and price of product from user and calculate discount i.e if price > 2000 then discount is 10 percent of price else discount is 7 % of price.

```
package ternaryoperator;
import java.util.Scanner;
/*wap to ask product name and price of product from user and calculate discount i.e
if price > 2000 then discount is 10 percent of price else discount is 7 % of price*/

public class discount {

    public static void main(String[] args) {
        Scanner sc= new Scanner(System.in);
        System.out.println("Enter the product name");
        String product = sc.nextLine();
        System.out.println("Your product is "+product);
        System.out.println();

        System.out.println("Enter the product Price");
        float price = sc.nextFloat();
        System.out.println("Product price in rupees "+price);
        float discount;

        if(price>2000) {
            discount= (price*0.1f);
            System.out.println();
            System.out.println("Discount is "+discount);
        }
        else if
        (price<2000) {
            discount= price*0.07f;
            System.out.println();
            System.out.println("Discount is "+discount);
        }

        else
            System.out.println("Invailid choice");
    }
}
```

The screenshot shows the Eclipse IDE with a project named 'MRT CDAC March 2023'. The Package Explorer on the left shows the project structure, including a 'src' folder with various Java files. The main editor displays the code for 'discount.java'. The code uses a Scanner to take input for product name and price, then calculates a discount based on the price. The Console on the right shows the output of the program.

```

1 package ternaryoperator;
2 import java.util.Scanner;
3 /* wap to ask product name and price of product from user and calculate discount i.e
4 if price > 2000 then discount is 10 percent of price else discount is 7 % of price */
5
6 public class discount {
7
8
9     public static void main(String[] args) {
10         Scanner sc= new Scanner(System.in);
11         System.out.println("Enter the product name");
12         String product = sc.nextLine();
13         System.out.println("Your product is "+product);
14         System.out.println();
15
16         System.out.println("Enter the product Price");
17         float price = sc.nextFloat();
18         System.out.println("Product price in rupees "+price);
19         float discount;
20
21         if(price>2000) {
22             discount= (price*0.1f);
23             System.out.println();
24             System.out.println("Discount is "+discount);
25         }
26         else if
27         (price<2000) {
28             discount= price*0.07f;
29             System.out.println();
30             System.out.println("Discount is "+discount);
31         }
32     }
33     else
34     System.out.println("Invalid choice");
35
36 }
37 }

```

The Console output shows the following interaction:

```

<terminated> discount [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe
Enter the product name
watch
Your product is watch

Enter the product Price
568
Product price in rupees 568.0

Discount is 39.76

```


Q6: - Wap to swap two numbers.

```
package ternaryoperator;
import java.util.Scanner;
public class swaptwonumbers {

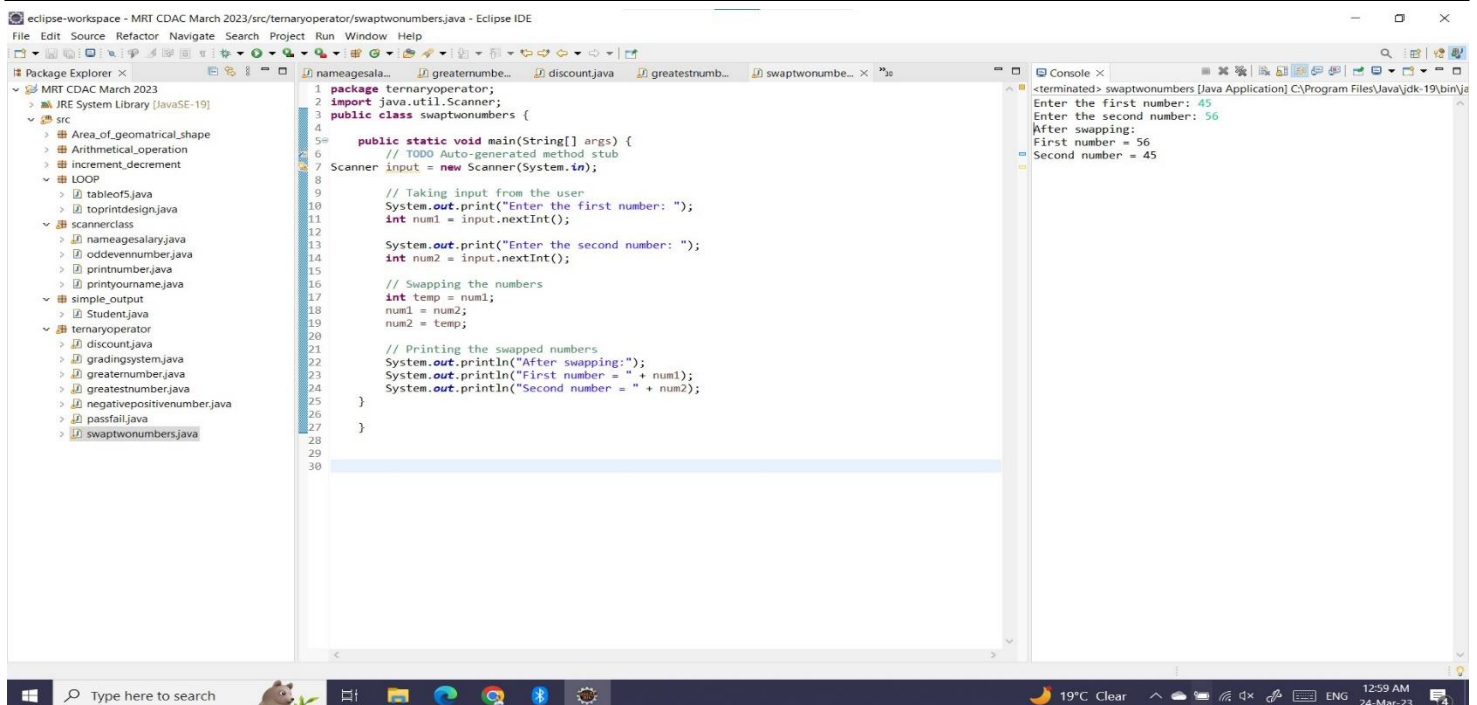
    public static void main(String[] args) {
        // TODO Auto-generated method stub
        Scanner input = new Scanner(System.in);

        // Taking input from the user
        System.out.print("Enter the first number: ");
        int num1 = input.nextInt();

        System.out.print("Enter the second number: ");
        int num2 = input.nextInt();

        // Swapping the numbers
        int temp = num1;
        num1 = num2;
        num2 = temp;

        // Printing the swapped numbers
        System.out.println("After swapping:");
        System.out.println("First number = " + num1);
        System.out.println("Second number = " + num2);
    }
}
```



Q7: - How to swap two numbers without using a third variable?

Q9: - wap to check is number is even or odd.

```
package scannerclass;
import java.util.Scanner;
public class oddevennumber {

    public static void main(String[] args) {

int n;
    System.out.println("Enter any Number");
    Scanner s = new Scanner(System.in);
    n= s.nextInt();
    if(n%2==0) {
    System.out.println("The number is Even Number");
    }
    else {
        System.out.println("The number is Odd Number");
        s.close();
    }

    }

}
```

The screenshot shows the Eclipse IDE interface. The Package Explorer on the left shows a project named 'MRT CDAC March 2023' with a package 'numbersystem' containing a file 'oddeven_number.java'. The main editor displays the Java code for the 'oddeven_number' class, which uses a Scanner to read an integer and checks if it is even or odd using a modulo operation. The Console window on the right shows the output of the program: 'Enter any number: 11' followed by '11 is Odd'. The bottom status bar indicates the system is at 20°C, Haze, and the date is 22-Mar-23.

```
1 package numbersystem;
2 import java.util.Scanner;
3
4 public class oddeven_number {
5
6     public static void main(String[] args) {
7
8         Scanner scanner = new Scanner(System.in);
9
10        System.out.print("Enter any number: ");
11        int number = scanner.nextInt();
12
13        if(number % 2 == 0) {
14            System.out.println(number + " is Even");
15        } else {
16            System.out.println(number + " is Odd");
17        }
18    }
19 }
20
21
22
23
```

<terminated> oddeven_number [Java Application] C:\Program Files\Java\jdk-19\bin\ja
Enter any number: 11
11 is Odd

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Q09: - A school has following rules for grading system:

- a. Below 25 - F
- b. 25 to 45 - E
- c. 45 to 50 - D
- d. 50 to 60 - C
- e. 60 to 80 - B
- f. Above 80 - A

Ask user to enter marks and print the corresponding grade

```
package ternaryoperator;
import java.util.Scanner;
public class gradingsystem {
/*A school has following rules for grading system:
a. Below 25 - F
b. 25 to 45 - E
c. 45 to 50 - D
d. 50 to 60 - C
e. 60 to 80 - B
f. Above 80 - A
Ask user to enter marks and print the corresponding grade */
    public static void main(String[] args) {
        Scanner s = new Scanner(System.in);
        System.out.println("Enter your marks");
        int mark ;
        mark= s.nextInt();

        if(mark>0 && mark <=25)
            System.out.println("Your grade is Fail");

        if(mark>25 && mark <=45)
            System.out.println("Your grade is E");

        if(mark>45 && mark <=50)
            System.out.println("Your grade is D");

        if(mark>50 && mark <=60)
            System.out.println("Your grade is C");

        if(mark>60 && mark <=80)
            System.out.println("Your grade is B");

        if(mark>80 && mark <=100)
            System.out.println("Your grade is A");
    }
}
```

The screenshot shows the Eclipse IDE interface. The Package Explorer on the left lists the project structure, including the 'ternaryoperator' package and the 'gradingsystem.java' file. The main editor displays the source code for 'gradingsystem.java'. The code uses a Scanner to take input from the user and prints the corresponding grade based on the following rules: 0-25 is Fail, 25-45 is E, 45-50 is D, 50-60 is C, 60-80 is B, and 80-100 is A. The Console on the right shows the program's execution, where the user entered '82' and the program outputted 'Your grade is A'.

```
1 package ternaryoperator;
2 import java.util.Scanner;
3 public class gradingsystem {
4     /*A school has following rules for grading system:
5     a. Below 25 - F
6     b. 25 to 45 - E
7     c. 45 to 50 - D
8     d. 50 to 60 - C
9     e. 60 to 80 - B
10    f. Above 80 - A
11    Ask user to enter marks and print the corresponding grade */
12
13    public static void main(String[] args) {
14        Scanner s = new Scanner(System.in);
15        System.out.println("Enter your marks");
16        int mark;
17        mark= s.nextInt();
18
19        if(mark>0 && mark <=25)
20            System.out.println("Your grade is Fail");
21
22        if(mark>25 && mark <=45)
23            System.out.println("Your grade is E");
24
25        if(mark>45 && mark <=50)
26            System.out.println("Your grade is D");
27
28        if(mark>50 && mark <=60)
29            System.out.println("Your grade is C");
30
31        if(mark>60 && mark <=80)
32            System.out.println("Your grade is B");
33
34        if(mark>80 && mark <=100)
35            System.out.println("Your grade is A");
36    }
37 }
38
```

Console Output:

```
<terminated> gradingsystem [Java Application] C:\Program Files\Java\jdk-19\bin\java
Enter your marks
82
Your grade is A
```

Q10: - wap to check greater number among three numbers

```
package ternaryoperator;

import java.util.Scanner;

public class greatestnumber {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter first number");
        int n1 = sc.nextInt();

        System.out.println("Enter second number");
        int n2 = sc.nextInt();

        System.out.println("Enter third number");
        int n3 = sc.nextInt();

        if(n1>n2)
        {
            if (n1>n3)
                System.out.println("The greatest number =" +n1);
            else
                System.out.println("The greatest number=" +n3);
        }
        else
        {
            if(n2>n3)
                System.out.println("The greatest number =" +n2);

            else
                System.out.println("The greatest number=" +n3);
        }
    }
}
```

The screenshot displays the Eclipse IDE interface. The Package Explorer on the left shows the project structure, including a package named 'ternaryoperator'. The main editor window shows the source code for 'greatestnumber.java'. The code uses a ternary operator to find the maximum of three numbers entered by the user. The console window on the right shows the execution output, indicating that the program ran successfully and printed 'The greatest number =56'.

```
1 package ternaryoperator;
2
3 import java.util.Scanner;
4
5 public class greatestnumber {
6
7     // TODO Auto-generated method stub
8
9     public static void main(String[] args) {
10         Scanner sc = new Scanner(System.in);
11
12         System.out.println("Enter first number");
13         int n1 = sc.nextInt();
14
15         System.out.println("Enter second number");
16         int n2 = sc.nextInt();
17
18         System.out.println("Enter third number");
19         int n3 = sc.nextInt();
20
21         if(n1>n2)
22         {
23             if (n1>n3)
24                 System.out.println("The greatest number =" +n1);
25             else
26                 System.out.println("The greatest number=" +n3);
27         }
28         else
29         {
30             if(n2>n3)
31                 System.out.println("The greatest number =" +n2);
32             else
33                 System.out.println("The greatest number=" +n3);
34         }
35     }
36 }
37
38 }
39
```

Console Output:

```
<terminated> greatestnumber [Java Application] C:\Program Files\Java\jdk-19\bin\jav
Enter first number
56
Enter second number
23
Enter third number
45
The greatest number =56
```