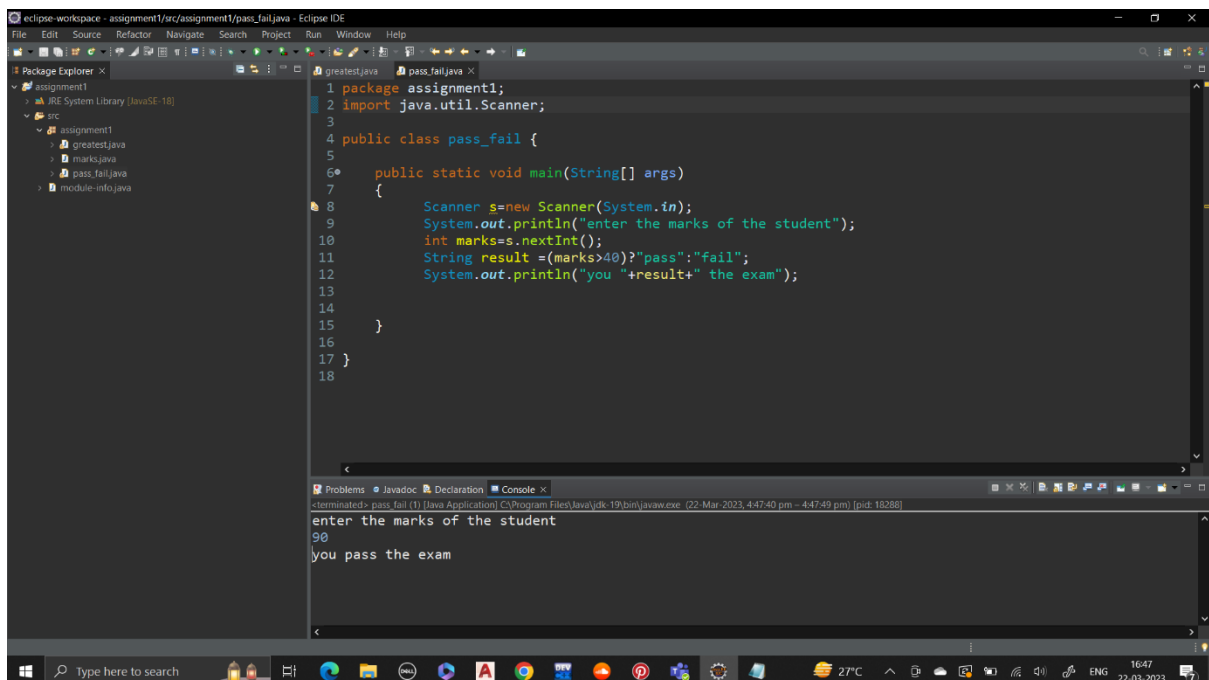


ASSIGNMENT-1

COP

Q 1 wap to demonstrate ternary operator define a variable marks ask its value from user and using ternary operator check if marks > 40 store "Pass" in result variable else store "Fail".



```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class pass_fail {
5
6     public static void main(String[] args)
7     {
8         Scanner s=new Scanner(System.in);
9         System.out.println("enter the marks of the student");
10        int marks=s.nextInt();
11        String result =(marks>40)?"pass":"fail";
12        System.out.println("you "+result+" the exam");
13    }
14 }
15
16
17 }
18
```

terminated> pass_fail (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (22-Mar-2023 4:47:40 pm - 4:47:49 pm) [pid: 18288]

enter the marks of the student
90
you pass the exam

Q 2 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

```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class positive_negative {
5
6     public static void main(String[] args)
7     {
8
9         Scanner s=new Scanner(System.in);
10        System.out.println("enter the number:");
11        int i=s.nextInt();
12        String result=(i>0?"positive":"negative");
13        System.out.println("the number is "+result);
14    }
15 }
16
17
18
```

Console Output:

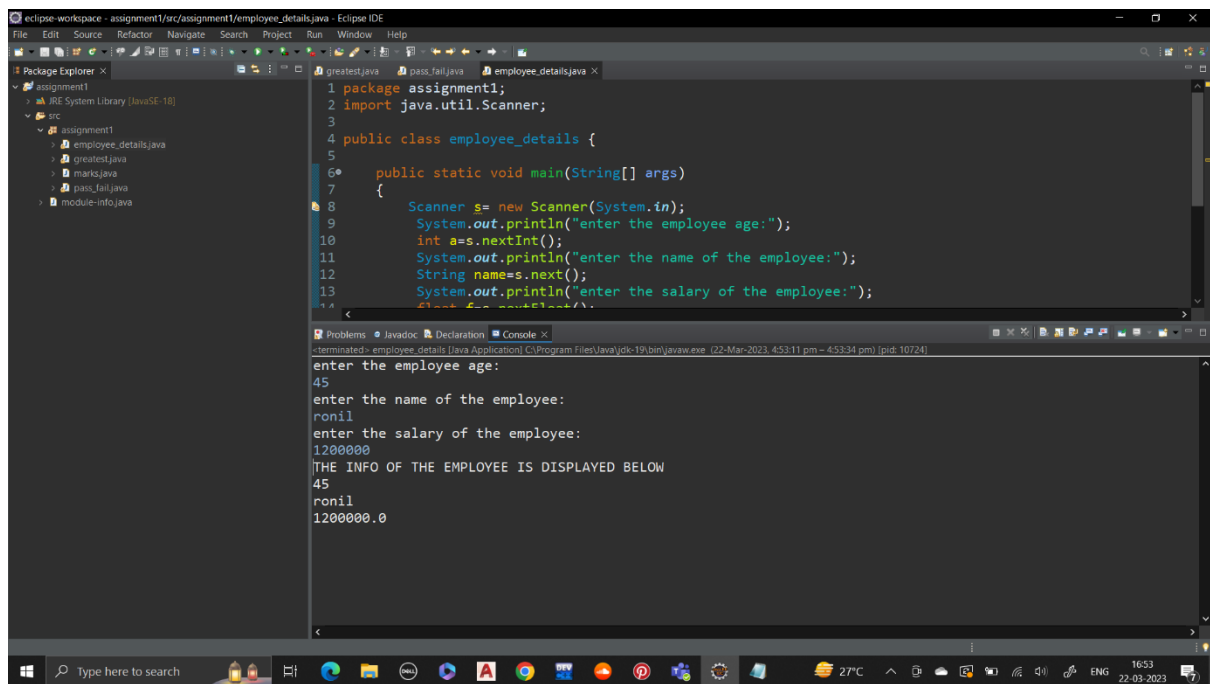
```
<terminated> positive_negative (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (22-Mar-2023, 4:56:46 pm) [pid: 25112]
enter the number:
-90
the number is negative
```

Q 3 WAP to ask name, age and salary of an employee and print on console.

```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class employee_details {
5
6     public static void main(String[] args)
7     {
8
9         Scanner s= new Scanner(System.in);
10        System.out.println("enter the employee age:");
11        int a=s.nextInt();
12        System.out.println("enter the name of the employee:");
13        String name=s.next();
14        System.out.println("enter the salary of the employee:");
15        float f=s.nextFloat();
16        System.out.println("THE INFO OF THE EMPLOYEE IS DISPLAYED BELOW");
17        System.out.println(a);
18        System.out.println(name);
19        System.out.println(f);
20    }
21 }
22
23
```

Console Output:

```
<terminated> employee_details (1) [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (22-Mar-2023, 4:53:11 pm) [pid: 10724]
enter the employee age:
45
enter the name of the employee:
ronil
enter the salary of the employee:
1200000
THE INFO OF THE EMPLOYEE IS DISPLAYED BELOW
```



Q 4 wap that ask two numbers from user and print greater number among two

```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class greatest
5 {
6
7     public static void main(String[] args)
8     {
9         Scanner s=new Scanner(System.in);
10        System.out.println("enter the first number");
11        int no1=s.nextInt();
12        System.out.println("enter the second number");
13        int no2=s.nextInt();
14        if(no1>no2)
15            System.out.println("the greater number is "+no1);
16        else
17            System.out.println("the greater number is "+no2);
18        }
19    }
20 }
21 }
22 }
```

enter the first number
90
enter the second number
99
the greater number is 99

Q 5 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.

```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class product_discount {
5
6     public static void main(String[] args)
7     {
8         Scanner s=new Scanner(System.in);
9         System.out.println("enter the name of the product");
10        String name=s.next();
11        System.out.println("enter the price of the product");
12        Double f=s.nextDouble();
13        Double disc=(f>2000)?0.1*f:0.07*f;
14        Double finalp=f-disc;
15        System.out.println("the discount on "+name+" is "+disc);
16        System.out.println("the final price after discount is:"+finalp);
17    }
18 }
19 }
20 }
21 }
22 }
```

enter the name of the product
airpods
enter the price of the product
25000
the discount on airpods is 2500.0
the final price after discount is:22500.0

Q 6 Wap to swap two numbers.

The screenshot shows the Eclipse IDE with a project named 'assignment1'. The 'Package Explorer' on the left shows a package 'assignment1' containing several Java files, including 'swap_1.java'. The 'Main Editor' displays the code for 'swap_1.java':

```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class swap_1 {
5
6     public static void main(String[] args)
7     {
8         Scanner s=new Scanner(System.in);
9         System.out.println("enter the first number:");
10        int no1=s.nextInt();
11        System.out.println("enter the second number:");
12        int no2=s.nextInt();
13        System.out.println("Before swapping the first no is "+no1+" and the second number is "+no2);
14        int c=no1;
15        no1=no2;
16        no2=c;
17        System.out.println("After swapping the first no is "+no1+" and the second number is "+no2);
18    }
19 }
20
21
22
23
24 }
25
```

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

```
<terminated> swap_1 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (22-Mar-2023, 9:04:43 pm - 9:04:50 pm) [pid: 15548]
enter the first number:
90
enter the second number:
45
Before swapping the first no is 90 and the second number is 45
After swapping the first no is 45 and the second number is 90
```

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

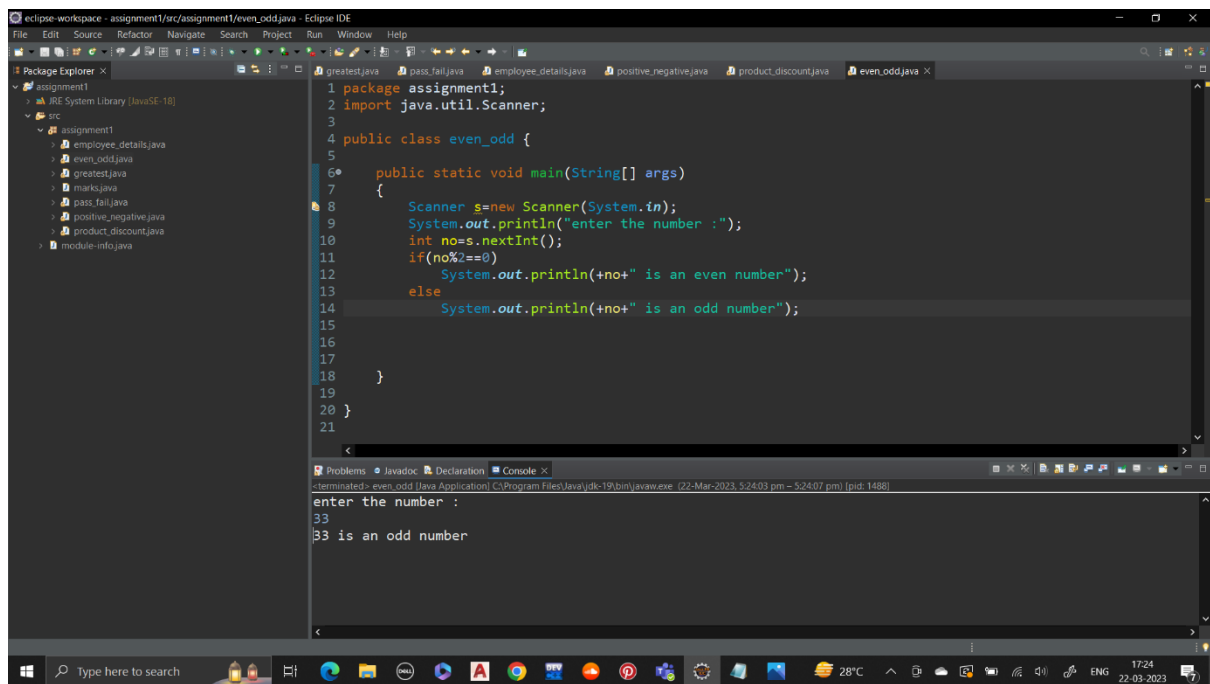
The screenshot shows the Eclipse IDE with a project named 'assignment1'. The 'Package Explorer' on the left shows a package 'assignment1' containing several Java files, including 'swapping_2.java'. The 'Main Editor' displays the code for 'swapping_2.java':

```
1 package assignment1;
2
3 import java.util.Scanner;
4
5 public class swapping_2 {
6
7     public static void main(String[] args)
8     {
9         Scanner s=new Scanner(System.in);
10        System.out.println("enter the first number:");
11        int no1=s.nextInt();
12        System.out.println("enter the second number:");
13        int no2=s.nextInt();
14        System.out.println("Before swapping the first no is "+no1+" and the second number is "+no2);
15        no1=no1-no2;
16        no2=no1-no2;
17        no1=no1-no2;
18        System.out.println("After swapping the first no is "+no1+" and the second number is "+no2);
19    }
20 }
21
22
23
24
```

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

```
<terminated> swapping_2 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (22-Mar-2023, 9:17:24 pm - 9:17:36 pm) [pid: 26004]
enter the first number:
88
enter the second number:
90
Before swapping the first no is 88 and the second number is 90
After swapping the first no is 90 and the second number is 88
```

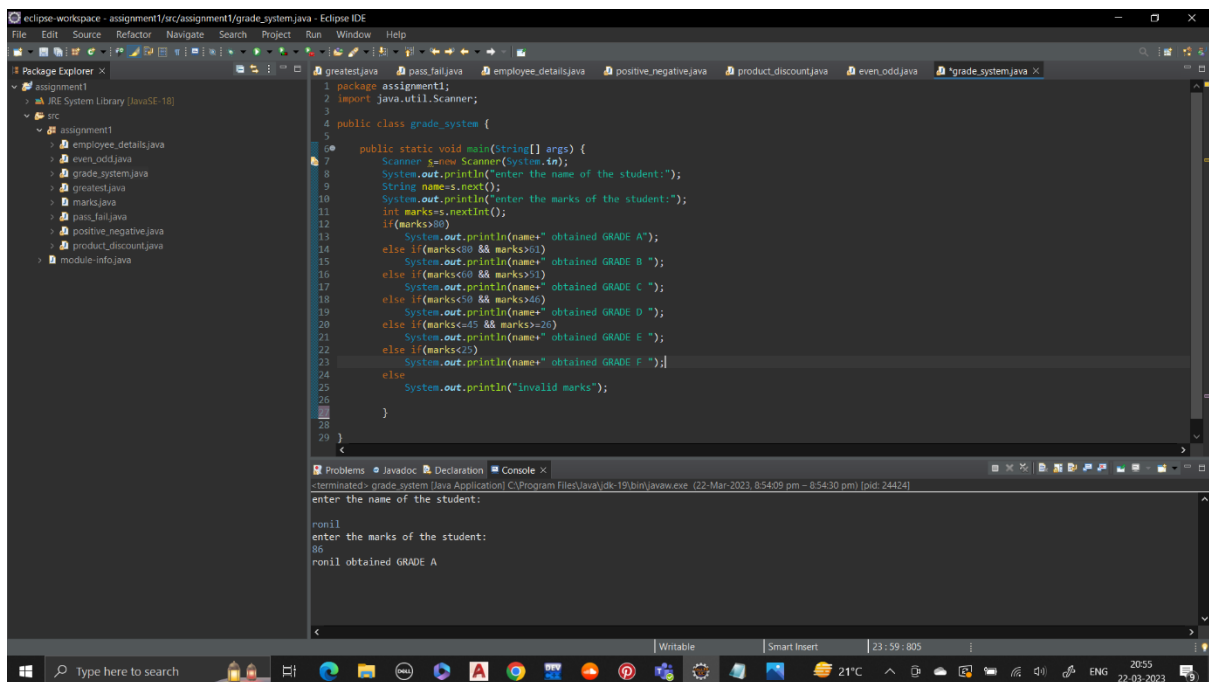
Q8. wap to check is number is even or odd.



Q 9 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.



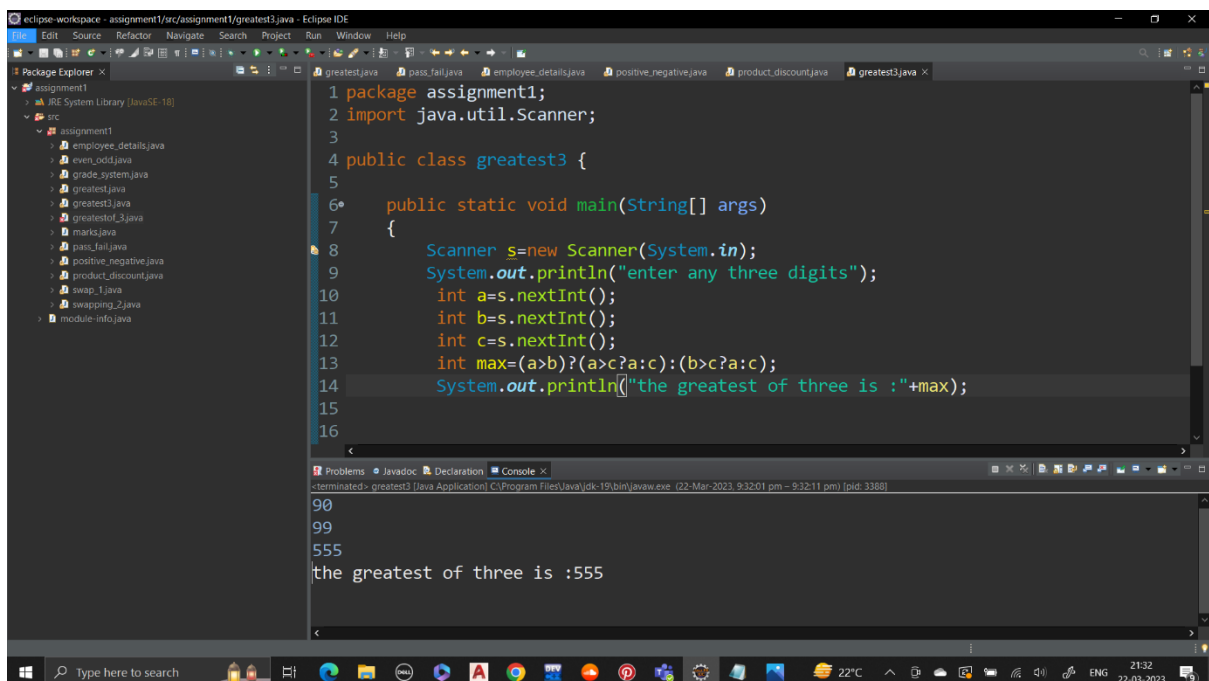
The screenshot shows the Eclipse IDE with the `grade_system.java` file open. The code defines a `grade_system` class with a `main` method that prompts the user for a student's name and marks, then prints the corresponding grade based on the rules provided in the question. The console output shows the program running successfully with the input "ronil" and "85", resulting in the output "ronil obtained GRADE A".

```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class grade_system {
5
6     public static void main(String[] args) {
7         Scanner s=new Scanner(System.in);
8         System.out.println("enter the name of the student:");
9         String name=s.next();
10        System.out.println("enter the marks of the student:");
11        int marks=s.nextInt();
12        if(marks>80)
13            System.out.println(name+" obtained GRADE A ");
14        else if(marks<=80 && marks>60)
15            System.out.println(name+" obtained GRADE B ");
16        else if(marks<=60 && marks>50)
17            System.out.println(name+" obtained GRADE C ");
18        else if(marks<=50 && marks>45)
19            System.out.println(name+" obtained GRADE D ");
20        else if(marks<=45 && marks>=20)
21            System.out.println(name+" obtained GRADE E ");
22        else if(marks<=20)
23            System.out.println(name+" obtained GRADE F ");
24        else
25            System.out.println("invalid marks");
26    }
27 }
28
29 }
```

Console Output:

```
<terminated> grade_system [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (22-Mar-2023, 8:54:09 pm - 8:54:30 pm) [pid: 24424]
enter the name of the student:
ronil
enter the marks of the student:
85
ronil obtained GRADE A
```

Q 10 wap to check greater number among three numbers.



The screenshot shows the Eclipse IDE with the `greatest3.java` file open. The code defines a `greatest3` class with a `main` method that prompts the user for three numbers, compares them, and prints the greatest one. The console output shows the program running successfully with the input "90", "99", and "555", resulting in the output "the greatest of three is :555".

```
1 package assignment1;
2 import java.util.Scanner;
3
4 public class greatest3 {
5
6     public static void main(String[] args)
7     {
8         Scanner s=new Scanner(System.in);
9         System.out.println("enter any three digits");
10        int a=s.nextInt();
11        int b=s.nextInt();
12        int c=s.nextInt();
13        int max=(a>b)?(a>c?a:c):(b>c?a:c);
14        System.out.println("the greatest of three is :"+max);
15    }
16 }
```

Console Output:

```
<terminated> greatest3 [Java Application] C:\Program Files\Java\jdk-19\bin\javaw.exe (22-Mar-2023, 9:32:01 pm - 9:32:11 pm) [pid: 3388]
90
99
555
the greatest of three is :555
```