

## WEEK3---LAB 1 PROGRAMS

### EXTRA PROGRAMS

#### PROGRAM—1

```
import java.util.Scanner;

public class Main

{

    public static void main(String[] args)

    {

        int n, sumE = 0, sumO = 0;

        Scanner s = new Scanner(System.in);

        System.out.print("Enter the number of elements in array:");

        n = s.nextInt();

        int[] a = new int[n];

        System.out.println("Enter the elements of the array:");

        for(int i = 0; i < n; i++)

        {

            a[i] = s.nextInt();

        }

        for(int i = 0; i < n; i++)

        {

            if(a[i] % 2 == 0)

            {

                sumE = sumE + a[i];

            }

            else

            {

                sumO = sumO + a[i];

            }

        }

    }

}
```

```

    }

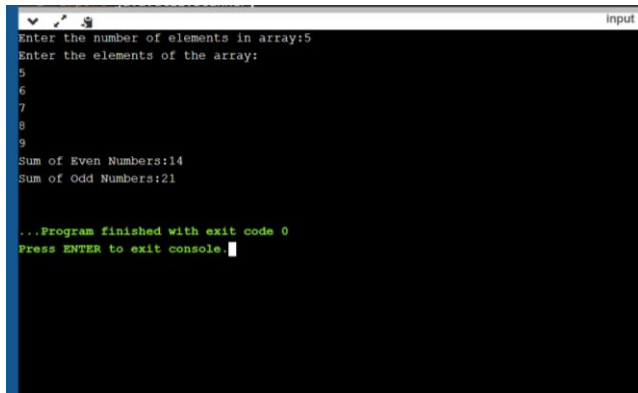
    System.out.println("Sum of Even Numbers:"+sumE);

    System.out.println("Sum of Odd Numbers:"+sumO);

}

}

```



```

input
Enter the number of elements in array:5
Enter the elements of the array:
5
6
7
8
9
Sum of Even Numbers:14
Sum of Odd Numbers:21

...Program finished with exit code 0
Press ENTER to exit console.

```

## PROGRAM—2

```

import java.util.Scanner;

public class Main
{
    public static void main(String args[])
    {
        // intialize and declaring the objects.

        int n,positive=0, negative=0, zero=0, i;

        int arr[] = new int[50];

        Scanner scan = new Scanner(System.in);

        // enter number you have to enter.

        System.out.print("How many Number you want to Enter : ");

        n = scan.nextInt();
    }
}

```

```

// enter the numbers.

System.out.println("Enter " +n+ " Numbers : ");


// this is to calculate the type of the number.

for(i=0; i<n; i++)

{

    arr[i] = scan.nextInt();

}

for(i=0; i<n; i++)

{

    if(arr[i] < 0)

    {

        negative++;

    }

    else if(arr[i] == 0)

    {

        zero++;

    }

    else

    {

        positive++;

    }

}


// print all +ve,-ve and zero number.

System.out.print("Positive Numbers are: " + positive );

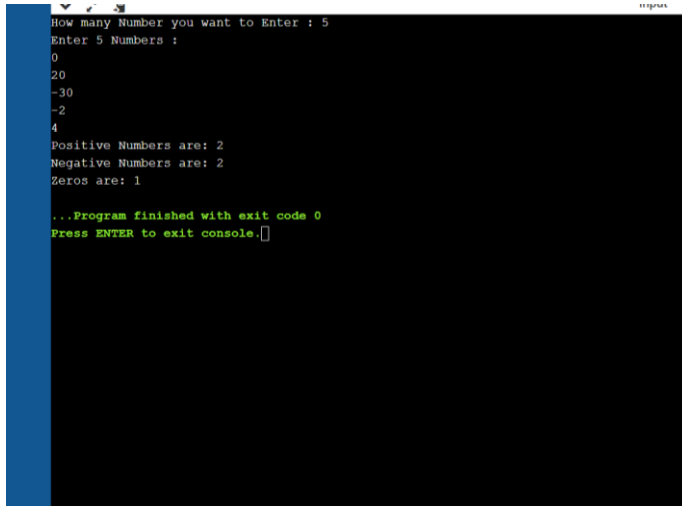
System.out.print("\nNegative Numbers are: " + negative );

System.out.print("\nZeros are: " + zero );

}

```

}

A screenshot of a Java program running in a console window. The program prompts the user to enter the number of numbers they want to enter (5). It then prompts the user to enter 5 numbers: 0, 20, -30, -2, and 4. The program then displays the results: Positive Numbers are: 2, Negative Numbers are: 2, and Zeros are: 1. Finally, it displays the message "...Program finished with exit code 0" and "Press ENTER to exit console.".

```
How many Number you want to Enter : 5
Enter 5 Numbers :
0
20
-30
-2
4
Positive Numbers are: 2
Negative Numbers are: 2
Zeros are: 1
...Program finished with exit code 0
Press ENTER to exit console.
```

## PROGRAM---3

```
import java.util.Scanner;

public class Main {

    public static void main(String[] args){

        Scanner sc = new Scanner(System.in);

        System.out.println("Enter the number of items:");

        int n = sc.nextInt();

        double indTot, tot = 0;

        double[] rpi = new double[n];

        int[] quant = new int[n];

        for(int i = 0; i<n; i++){

            System.out.println("enter quantity of purchase and rate per item" + (i+1));

            int q = sc.nextInt();

            double r = sc.nextDouble();

            quant[i] = q;
```

```
        rpi[i] = r;
    }

    for(int i = 0; i<n; i++){

        indTot = quant[i] * rpi[i] ;

        tot += indTot;

    }

    if (tot >= 10000) {

        System.out.println("Discount = 5%. Total bill = " + tot + " Discounted bill = " + (tot - tot * 0.05));

    }


    else if (tot >= 7500) {

        System.out.println("Discount = 3%. Total bill = " + tot + " Discounted bill = " + (tot - tot * 0.03));

    }

    else if (tot >= 5000) {

        System.out.println("Discount = 2%. Total bill = " + tot + " Discounted bill = " + (tot - tot * 0.02));

    }

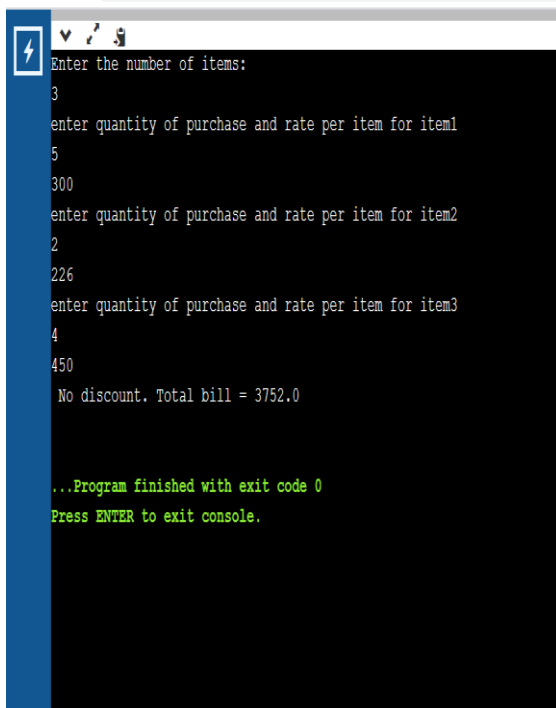
    else{

        System.out.println(" No discount. Total bill = " + tot );

    }

}

}
```

A screenshot of a Java IDE's console window. The window has a dark background with a blue vertical bar on the left. The text in the console is white, except for the final two lines which are green. The program prompts the user to enter the number of items, then for each item, the quantity and rate per item. It calculates the total bill as 3752.0 and displays the exit code 0.

```
Enter the number of items:
3
enter quantity of purchase and rate per item for item1
5
300
enter quantity of purchase and rate per item for item2
2
226
enter quantity of purchase and rate per item for item3
4
450
No discount. Total bill = 3752.0

...Program finished with exit code 0
Press ENTER to exit console.
```

## PROGRAM---4

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

```
public class Main {
```

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

```
        int n, j = 0, k = 0, sum = 0, avg, max , min;
```

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

```
        System.out.print("Enter the number of elements in array:");
```

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

```
        int[] a = new int[n];
```

```
        int[] b = new int[n];
```

```
        int[] c = new int[n];
```

```
        System.out.println("Enter the elements of the array:");
```

```
        for(int i = 0;i<n;i++){
```

```
            a[i] = s.nextInt();
```

```
        }
```

```

for(int i = 0;i<n;i++){

    if (a[i] % 2 == 0) {

        c[j] = a[i];

        sum += a[i];

        j++;

    } else {

        b[k] = a[i];

        k++;

    }

}

//avg = sum / j;

max = c[0];

min = c[0];

for(int i = 0; i<j;i++){

    if (c[i] > max){

        max = c[i];

    }

    if (c[i] < min){

        min = c[i];

    }

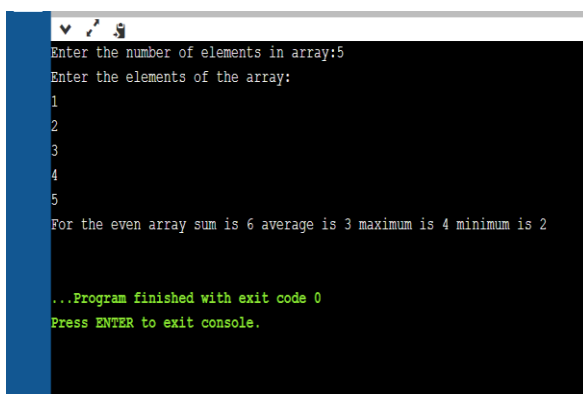
}

System.out.println("For the even array sum is "+sum+" average is "+(sum/j)+" maximum is "+max+" minimum is "+min);

}

}

```



```

Enter the number of elements in array:5
Enter the elements of the array:
1
2
3
4
5
For the even array sum is 6 average is 3 maximum is 4 minimum is 2

...Program finished with exit code 0
Press ENTER to exit console.

```

