WEEK 3 -OOJ LAB- PRACTICE PROGRAM

Program and Output

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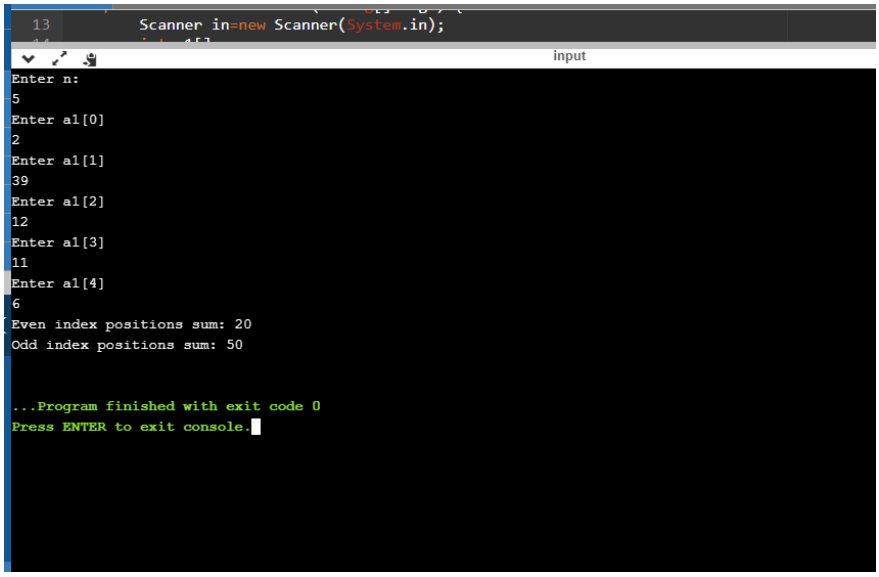
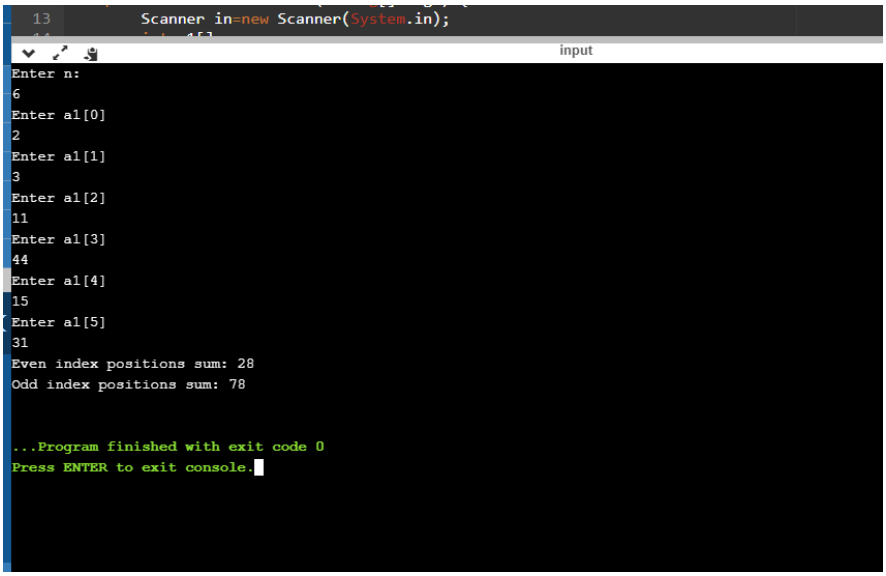
Program 1-

```
import java.util.Scanner;
public class Main
{
        public static void main(String[] args) {
           Scanner in=new Scanner(System.in);
           int a1[];
           int even=0, odd=0;
           System.out.println("Enter n:");
                int n=in.nextInt();
                a1=new int[n];
                for(int i=0;i<n;i++)
                {
                        System.out.println("Enter a1["+i+"]");
                        a1[i]=in.nextInt();
                }
      for (int i=0; i<n; i++) {
         if (i%2==0)
            even+= a1[i];
         else
            odd+= a1[i];
```

```
        }

        System.out.println("Even index positions sum: " + even);
        System.out.println("Odd index positions sum: " + odd);
    }
}
```

Output



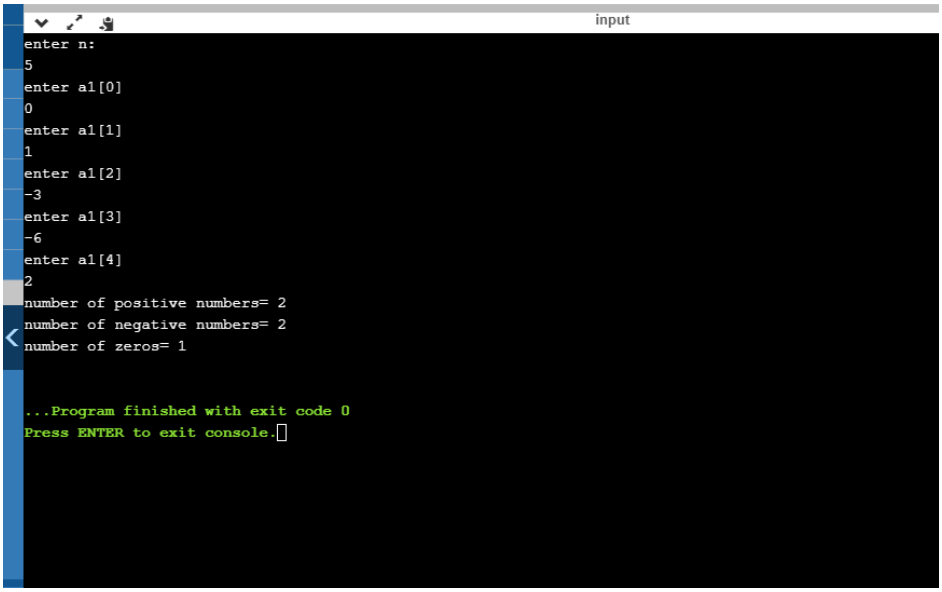


Program 2-

```
import java.util.Scanner;
public class Main
{
	public static void main(String[] args) {
		Scanner in=new Scanner(System.in);
		int a1[];
		int pos=0, neg=0, zer=0;
		System.out.println("enter n:");
		int n=in.nextInt();
		a1=new int[n];
		for(int i=0;i<n;i++)
		{
		   System.out.println("enter a1["+i+"]");
		   a1[i]=in.nextInt();

		}
		for(int i=0;i<n;i++){
		   if(a1[i]>0)
		   pos++;
		   else if(a1[i]<0)
		   neg++;
		   else zer++;

		}
		System.out.println("number of positive numbers= "+pos);
```

```
            System.out.println("number of negative numbers= "+neg);
            System.out.println("number of zeros= "+zer);
        }
}
```

Output-



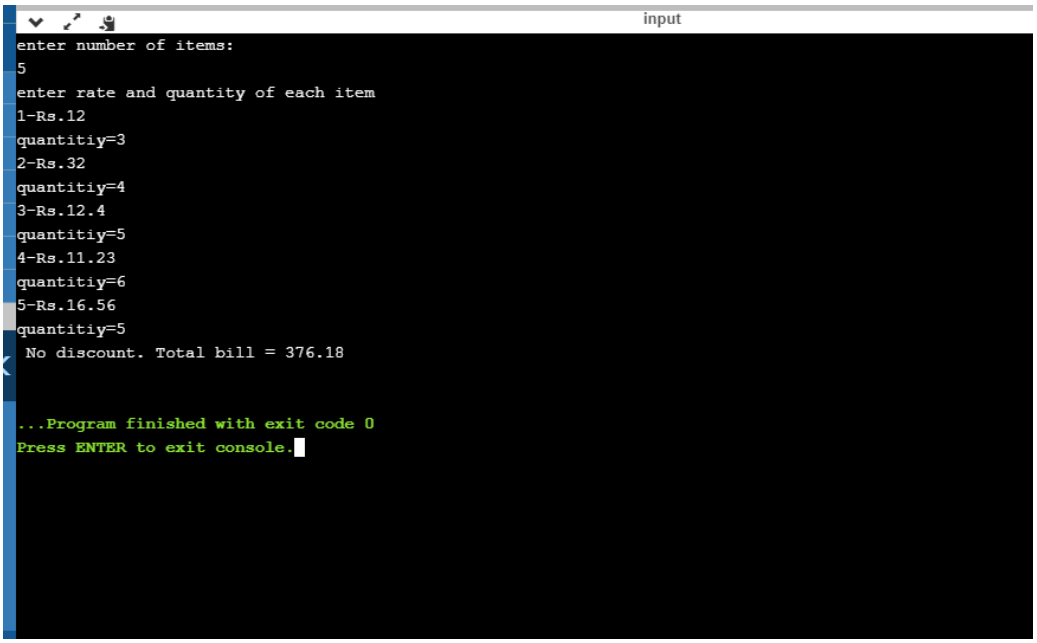
Program 3-

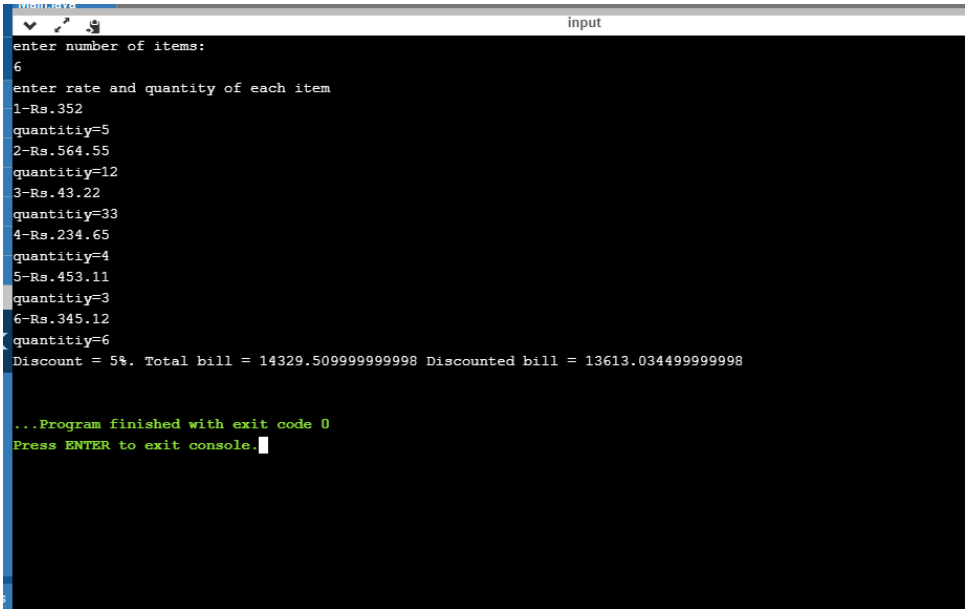
```
import java.util.Scanner;
public class Main
{
        public static void main(String[] args) {
            Scanner in=new Scanner(System.in);
            System.out.println("enter number of items:");
            int n=in.nextInt();
            double total=0;
          double rip[]=new double[n];
          int q[]=new int[n];
```

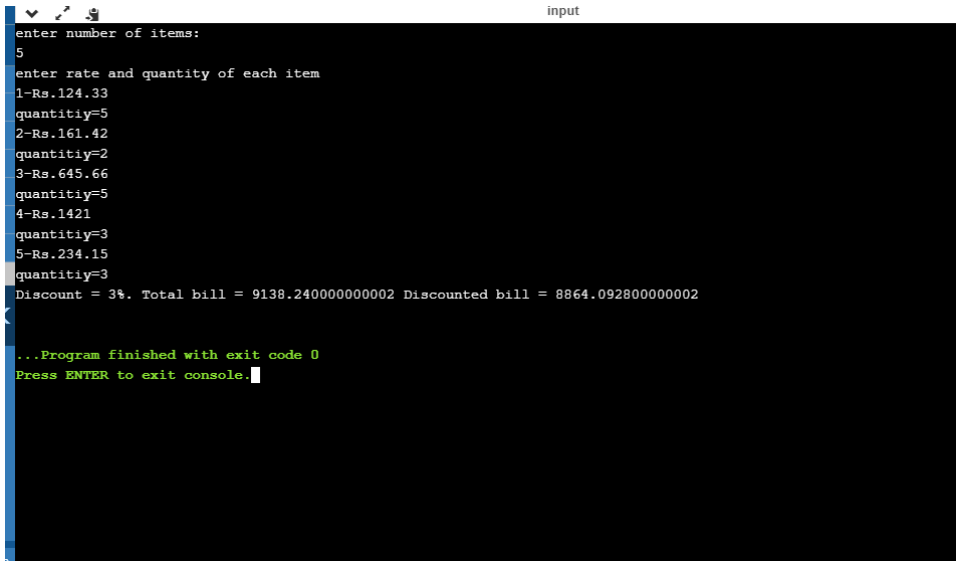
```
        double tot[]=new double[n];
        System.out.println("enter rate and quantity of each item");
        for(int i=0;i<n;i++)
        {
           System.out.print((i+1)+"-");
           System.out.print("Rs.");
           rip[i]=in.nextDouble();
           System.out.print("quantitiy=");
           q[i]=in.nextInt();

      }
           for(int i=0;i<n;i++)
           {
              tot[i]=rip[i]*q[i];
              total+=tot[i];
           }
            if (total>=10000) {
      System.out.println("Discount = 5%. Total bill = " + total + " Discounted bill = " + (total -
total * 0.05));
   }
   else if (total>=7500 && total<10000) {
      System.out.println("Discount = 3%. Total bill = " + total + " Discounted bill = " + (total -
total * 0.03));
   }
                else if (total >= 5000) {
      System.out.println("Discount = 2%. Total bill = " + total + " Discounted bill = " + (total -
total * 0.02));
```

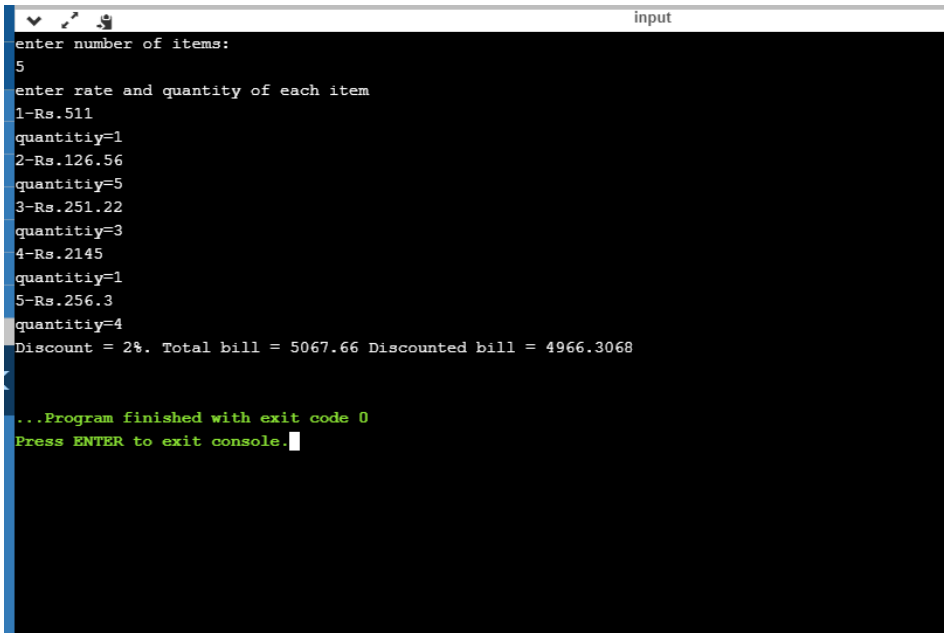
```
    }
            else{
       System.out.println(" No discount. Total bill = " + total );
    }
       }
}
```

Output-




input
enter number of items:
6
enter rate and quantity of each item
1-Rs.352
quantitiy=5
2-Rs.564.55
quantitiy=12
3-Rs.43.22
quantitiy=33
4-Rs.234.65
quantitiy=4
5-Rs.453.11
quantitiy=3
6-Rs.345.12
quantitiy=6
Discount = 5%. Total bill = 14329.509999999998 Discounted bill = 13613.034499999998
...Program finished with exit code 0
Press ENTER to exit console.


input
enter number of items:
5
enter rate and quantity of each item
1-Rs.124.33
quantitiy=5
2-Rs.161.42
quantitiy=2
3-Rs.645.66
quantitiy=5
4-Rs.1421
quantitiy=3
5-Rs.234.15
quantitiy=3
Discount = 3%. Total bill = 9138.240000000002 Discounted bill = 8864.092800000002
...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) {

                Scanner in=new Scanner(System.in);

                int a[], b[], c[];

                int j=0, k=0;

                System.out.println("enter no. of elements:");

                int n=in.nextInt();

                a=new int[n];

                b=new int[n];

                c=new int[n];

                System.out.print("enter the elements:");

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

```
{
  a[i]=in.nextInt();
}
for(int i=0;i<n;i++)
{
   if(a[i]%2!=0)
   {
      b[j]=a[i];
      j++;
   }
   else
   {
      c[k]=a[i];
      k++;
   }
}
System.out.println("Odd:");
if(j>1)
{
   for(int i=0;i<j-1;i++)
   {
      System.out.print(b[i]+",");
   }
   System.out.print(b[j-1]);
}
else
```

```
                {
                   System.out.println("no number");
                }
                System.out.println("");
                System.out.println("Even:");
                if(k>1)
                {
                   for(int i=0;i<k-1;i++)
                   {
                      System.out.print(c[i]+",");
                   }
                   System.out.print(c[k-1]);
                }
                else
                {
                   System.out.println("no number");
                }

double sum=0 , avg=0;
int max=c[0], min=c[0];
for(int i=0;i<k;i++)
{
   if(c[i]>max){
   max=c[i];}
   if(c[i]<min){
   min=c[i];}
```

```
    sum+=c[i];

}

avg=(sum/(k));

System.out.println("\nEven array:");

System.out.println("sum= "+sum+"\naverage= "+avg+"\nmaximum= "+max+"\nminimum=
"+min);

}

}
```

Output-

```
53          System.out.println("Even:");
54          if(k>1)
55          {
56              for(int i=0;i<k-1;i++)
57              {
58                  System.out.print(c[i]+",");
```

input

```
enter no. of elements:
6
enter the elements:11 21 32 44 12 56
Odd:
11,21
Even:
32,44,12,56
Even array:
sum= 144.0
average= 36.0
maximum= 56
minimum= 12


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