NAME: S SKANDA
USN : 1BM19CS137
BATCH-2

1. Accept an array of size n from the user. Find the sum of even indices (i.e., 0,2,4….) and sum of odd indices (1,3,5….) and print the same

```
import java.util.Scanner;

class evenodd {

    public static void main(String args[])

    {    int arr[] = new int[10];

         int even = 0, odd = 0,n,i;

    Scanner in =new Scanner(System.in);

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

    n=in.nextInt();

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

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

    {  arr[i]=in.nextInt();

              if (i % 2 == 0)

                   even += arr[i];

              else

                   odd += arr[i];

         }

         System.out.println("Even index positions sum: " + even);

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

```
    }
}
```

```
PS D:\sem3\ooj_lab\09-10-2020\extra> javac .\evenodd.java
PS D:\sem3\ooj_lab\09-10-2020\extra> java evenodd
Enter the number of elements of the array
5
Enter the elements of the array
7
2
6
9
4
Even index positions sum: 17
Odd index positions sum: 11
PS D:\sem3\ooj_lab\09-10-2020\extra>
```

2. Accept an array of n integers. Find the number of positive numbers, negative numbers and zeros

```
import java.util.Scanner;
class posnegzero {
    public static void main(String args[])
    {   int arr[] = new int[10];
        int pos = 0, neg = 0,zero=0,n,i;
    Scanner in =new Scanner(System.in);
    System.out.println("Enter the number of elements of the
array");
    n=in.nextInt();
    System.out.println("Enter the elements of the array");
    for (i=0;i<n ;i++ )
    { arr[i]=in.nextInt();
      if(arr[i]==0)
        zero+=1;
            else if (arr[i]> 0 )
                pos += 1;
            else
                neg += 1;
        }

        System.out.println("the number of zeros in the array : " +
zero);
        System.out.println("the number of positive numbers in the
array : " + pos);
    System.out.println("the number of negative numbers in the array
: " + neg);
  }
```

```
}
```

```
PS D:\sem3\ooj_lab\09-10-2020\extra> javac .\posnegzero.java
PS D:\sem3\ooj_lab\09-10-2020\extra> java posnegzero
Enter the number of elements of the array
5
Enter the elements of the array
-7
8
3
-17
0
the number of zeros in the array : 1
the number of positive numbers in the array : 2
the number of negative numbers in the array : 2
PS D:\sem3\ooj_lab\09-10-2020\extra>
```

3. Consider a super market bill. Accept a double array holding rate per item of say x items and an int array showing the quantity purchased by a customer. Calculate the total bill amount and the final bill amount after giving discounts as per the following slabs.

If the total bill amount >=10000, discount=5%

If the total bill amount >=7500 and <10000, discount=3%

If the total bill amount >=5000, discount=2%

```
import java.util.Scanner;

class billing{

     public static void main(String args[])

     {int n,i,j,total=0;

    int bill[][]= new int[10][3];

    float discounted;

    Scanner in =new Scanner(System.in);

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

    n=in.nextInt();

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

    {   System.out.print("Enter the item number : ");

        bill[i][0]=in.nextInt();
```

```
            System.out.print("Enter the cost per item : ");
            bill[i][1]=in.nextInt();
            System.out.print("Enter the quantity: ");
            bill[i][2]=in.nextInt();
            total+=(bill[i][1]*bill[i][2]);
        }
        if (total>=10000)       discounted=(float)(0.95*total);
        else if (total >=7500)  discounted=(float)(0.97*total);
        else if (total >=5000)  discounted=(float)(0.98*total);
        else  discounted=total;
        System.out.println("TOTAL :"+total);
        System.out.println("DISCOUNTED TOTAL :"+ discounted);}
    }
```

```
PS D:\sem3\ooj_lab\09-10-2020\extra> javac .\billing.java
PS D:\sem3\ooj_lab\09-10-2020\extra> java billing
Enter the number of items purchased : 2
Enter the item number : 1
Enter the cost per item : 10000
Enter the quantity: 1
Enter the item number : 2
Enter the cost per item : 1000
Enter the quantity: 1
TOTAL :11000
DISCOUNTED TOTAL :10450.0
PS D:\sem3\ooj_lab\09-10-2020\extra> java billing
Enter the number of items purchased : 2
Enter the item number : 1
Enter the cost per item : 8000
Enter the quantity: 1
Enter the item number : 2
Enter the cost per item : 500
Enter the quantity: 2
TOTAL :9000
DISCOUNTED TOTAL :8730.0
PS D:\sem3\ooj_lab\09-10-2020\extra> java billing
Enter the number of items purchased : 3
Enter the item number : 1
Enter the cost per item : 100
Enter the quantity: 10
Enter the item number : 2
Enter the cost per item : 500
Enter the quantity: 5
Enter the item number : 3
Enter the cost per item : 100
Enter the quantity: 5
TOTAL :4000
DISCOUNTED TOTAL :4000.0
PS D:\sem3\ooj_lab\09-10-2020\extra>
```

4. Accept an array A of n elements. Create two new arrays where the first one say B that holds all the odd numbers from array A and the second say C holds the even numbers from array A. Display the sum, average, max and min of array C.

```
import java.util.Scanner;
class arrayabc{
     public static void main(String args[])
     {
     int n,i,j=0,k=0;
    Scanner in =new Scanner(System.in);
    System.out.println("Enter the number of elements of the
array");
    n=in.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 (i=0;i<n ;i++ )
    {
      A[i]=in.nextInt();
      if (A[i] % 2 == 0)
        {
          C[j]=A[i];
          j++;
        }
      else
        {
          B[k]=A[i];
          k++;
        }
         }
    System.out.print("A : ");
    for (i=0;i<n ;i++ )
      System.out.print(A[i]+" ");

     System.out.print("B : ");
    for (i=0;i<k ;i++ )
      System.out.print(B[i]+" ");
```

```
    System.out.print("C : ");
    int min=C[0],max=C[0],sum=0;
    for (i=0;i<j ;i++)
    {
      System.out.print(C[i]+" ");
      if(C[i]>max)  max=C[i];
      if(C[i]<min)  min=C[i];
      sum+=C[i];
    }

 System.out.println("The minimun element of the array C : "+ min);

 System.out.println("The maximum element of the array C : "+ max);

System.out.println("The sum of elements of the array C : "+ sum);

System.out.println("The average ofelements of the array C : "+
(sum/(k+1)));

  }
}
```

```
PS D:\sem3\ooj_lab\09-10-2020\extra> javac .\arrayabc.java
PS D:\sem3\ooj_lab\09-10-2020\extra> java arrayabc
Enter the number of elements of the array
7
Enter the elements of the array
17
8
7
3
6
9
4
A : 17 8 7 3 6 9 4 B : 17 7 3 9 C : 8 6 4 The minimun element of the array C : 4
The maximum element of the array C : 8
The sum of elements of the array C : 18
The average ofelements of the array C : 3
PS D:\sem3\ooj_lab\09-10-2020\extra>
```