1. program to take input of two integer arrays from the user and to find the sum of both the arrays.

Sort the elements of the resultant array in ascending order using selection sort.

Program:

**import** java.io.\*;

**import** java.util.Scanner;

**public** **class** SumArraySort {

**public** **void** sort(**int**[] sum)

{

**int** n=sum.length;

**for**(**int** i=0; i<n-1; i++)

{

**int** min=i;

**for**(**int** j=i+1; j<n; j++)

{

**if**(sum[j]<sum[min])

{

min=j;

}

**int** temp=sum[min];

sum[min]=sum[i];

sum[i]=temp;

}

}

}

**void** printArray(**int** sum[])

{

**int** n=sum.length;

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

{

System.***out***.print(sum[i]+" ");

}

System.***out***.println();

}

**public** **static** **void** main(String[] args)

{

**int** i;

System.***out***.print("Enter the size of array");

Scanner sc =**new** Scanner(System.***in***);

**int** size=sc.nextInt();

**int**[] arr1=**new** **int**[size];

**int**[] arr2=**new** **int**[size];

**int**[] sum=**new** **int**[size];

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

**for**(i=0; i<size; i++)

{

arr1[i]=sc.nextInt();

}

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

**for**(i=0; i<size; i++)

{

arr2[i]=sc.nextInt();

}

**for**(i=0; i<size; i++)

{

sum[i]= arr1[i]+arr2[i];

}

System.***out***.println("The sum of arrays one and two is:");

**for**(i=0; i<size; i++)

{

System.***out***.print(sum[i]+ " ");

}

System.***out***.println("");

//printing sorted sum array

SumArraySort ob=**new** SumArraySort();

ob.sort(sum);

System.***out***.println("Sorted Array");

ob.printArray(sum);

}

}

Output:

Enter the size of array5

Enter the array one elements:

1

2

3

4

5

Enter the array two elements

6

7

8

9

10

The sum of arrays one and two is:

7 9 11 13 15

Sorted Array

7 9 11 13 15

2.program to take input of Two arrays and store the similar elements into the resultant array.

sort the resultant array in ascending order using bubble sort.

NOTE: there must at least be 6 similar elements.

similar elements= the elements occurring in both the arrays.

Program:

**import** java.util.Scanner;

**public** **class** SimSort

{

**public** **static** **void** bubbleSort(**int** arr[], **int** len)

{

**int** temp;

**for** (**int** i = 0; i < len-1; i++)

**for** (**int** j = 0; j < len-i-1; j++)

{

**if** (arr[j] > arr[j+1])

{

temp = arr[j];

arr[j] = arr[j+1];

arr[j+1] = temp;

}

}

}

**public** **static** **void** main(String[] args)

{

Scanner sc=**new** Scanner(System.***in***);

System.***out***.println("enter the array size");

**int** size=sc.nextInt();

**int** arr1[]=**new** **int**[size];

**int** arr2[]=**new** **int**[size];

**int** arr3[]=**new** **int**[size];

**int** count=0;

System.***out***.println("enter the first array elements");

**for**(**int** i=0;i<size;i++)

{

arr1[i]=sc.nextInt();

}

System.***out***.println("enter the Second array elements");

**for**(**int** i=0;i<size;i++)

{

arr2[i]=sc.nextInt();

}

**for**(**int** x=0;x<size;x++)

{

**for**(**int** y=0;y<size;y++)

{

**if**(arr1[x]==arr2[y])

{

arr3[count]=arr2[y];

count++;

}

}

}

*bubbleSort*(arr3,count);

System.***out***.println("3rd array elements are");

**for**(**int** k=0;k<count;k++)

{

System.***out***.print(arr3[k]+",");

}

}

}

Output:

enter the array size

8

enter the first array elements

2

4

6

8

10

12

14

16

enter the Second array elements

25

64

12

10

6

8

3

4

3rd array elements are

4,6,8,10,12,

3.program to take input two arrays and store the dissimilar elements into a resultant array.

sort the resultant array in a descending order using bubble sort.

dissimilar elements= the elements not occurring in both the arrays.(unique elements)

Program:

**import** java.util.\*;

**public** **class** DisSort {

**void** bubbleSort(**int**[] arr3)

{

**int** n=arr3.length;

**for**(**int** i=0;i<n-1;i++)

{

**for**(**int** j=0;j<n-i-1;j++)

{

**if**(arr3[j]>arr3[j+1])

{

**int** temp=arr3[j];

arr3[j]=arr3[j+1];

arr3[j+1]=temp;

}

}

}

}

**void** printArray(**int** arr3[])

{

**int** n=arr3.length;

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

{

System.***out***.print(arr3[i]+ " ");

}

System.***out***.println();

}

**public** **static** **void** main(String[] args)

{

System.***out***.println("Enter the Size of Array : ");

Scanner sc=**new** Scanner(System.***in***);

**int** size = sc.nextInt();

**int** arr1[]=**new** **int**[size];

**int** arr2[]=**new** **int**[size];

System.***out***.println("Enter the elements of Array 1");

**for**(**int** i=0;i<size;i++)

{

arr1[i]=sc.nextInt();

}

System.***out***.println("Enter the elements of Array 2");

**for**(**int** i=0;i<size;i++)

{

arr2[i]=sc.nextInt();

}

**int** arr3[]=**new** **int**[size];

System.***out***.println("Dissimilar Elements is: ");

**for**(**int** i=0;i<size;i++)

{

**for**(**int** j=0;j<size;j++)

{

**if**(arr1[i] != arr2[j])

{

arr3[i]=arr1[i];

System.***out***.println(arr3[i]);

}

}

}

//Sorting//

DissimilarSort ob=**new** DissimilarSort();

ob.bubbleSort(arr3);

System.***out***.println("Sorted Array");

ob.printArray(arr3);

}

}

Output:

Enter the Size of Array :

3

Enter the elements of Array 1

2

3

6

Enter the elements of Array 2

3

8

9

Dissimilar Elements is:

2

2

2

3

3

6

6

6

Sorted Array

2 3 6

4. Implement Array List and add, remove, elements in the Array List and perform sorting of the elements using the iterator.

Program:

import java.util.ArrayList;

import java.util.Collections;

public class ArrayList1 {

    public static void main(String[] args)

    {

        ArrayList<String>list=new ArrayList<String>();

        list.add("Nithin");

        list.add("Abin");

        list.add("Peter");

        list.add("Melvin");

        list.add("Delbin");

        list.add("Sidharth");

        System.out.println("The elements in ArrayLists are: "+list);

        list.remove(5);

        System.out.println("The contents of list after removing the element at 5th position is: "+list);

        Collections.sort(list);

        System.out.println("After sorting the list: "+list);

    }

}

Output:

The elements in ArrayLists are: [Nithin, Abin, Peter, Melvin, Delbin, Sidharth]

The contents of list after removing the element at 5th position is: [Nithin, Abin, Peter, Melvin, Delbin]

After sorting the list: [Abin, Delbin, Melvin, Nithin, Peter]

5. Implement LinkedList and add, remove, elements in the LinkedList and perform sorting of the elements using the iterator.

Program:

import java.util.LinkedList;

import java.util.ListIterator;

public class LinkedList1 {

    public static void main(String[] args)

    {

        LinkedList<String>list=new LinkedList<String>();

        list.add("Ron");

        list.add("Sam");

        list.add("Arun");

        list.add("Loyal");

        list.add("Prestin");

        System.out.println("Linkedlist: "+list);

        ListIterator list\_iter=list.listIterator(2);

        System.out.println("The list is as follows: ");

        while(list\_iter.hasNext()) {

            System.out.println(list\_iter.next());

        }

    }

}

Output:

Linkedlist: [Ron, Sam, Arun, Loyal, Prestin]

The list is as follows:

Arun

Loyal

Prestin