

```

import java.util.*;
public class DuplicateElement {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        int a[]={1,5,4,2,1,4,7};

        Set<Integer> st=new HashSet<>();
        boolean isDuplicate=false;

        for(int i=0;i<a.length;i++){
            if(st.contains(a[i])){
                isDuplicate=true;
                System.out.println("Duplicate Elements
"+a[i]);
            }
            else{
                st.add(a[i]);
            }
        }

        if(!isDuplicate){
            System.out.println(-1);
        }

    }

}
//Duplicate Elements 1
//Duplicate Elements 4

```

```

import java.util.*;
public class PairSum {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        int a[]={1,2,3,4,5,6,7};
        int sum=9;

        int start=0;
        int end=a.length-1;

        while(start<end){

```

```

        if(a[start]+a[end]>sum){
            end--;
        }
        else if(a[start]+a[end]<sum){
            start++;
        }
        else if(a[start]+a[end]==sum){
            System.out.println("pair
"+"("+a[start]+","+a[end]+")");
            start++;
            end--;
        }
    }

}

}

//pair (2,7)
//pair (3,6)
//pair (4,5)

```

```

import java.util.*;
public class FindCommonElements {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        int a1[]={1,5,10,20,40,80};
        int a2[]={6,7,20,80,100};
        int a3[]={3,4,15,20,30,70,80,120};

        for(int i=0;i<a1.length;i++){
            for(int j=0;j<a2.length;j++){
                for(int k=0;k<a3.length;k++){
                    if(a1[i]==a2[j] && a2[j]==a3[k]){
                        System.out.println(a1[i]);
                    }
                }
            }
        }

    }

}

```

```
//20
//80
```

```
import java.util.*;
public class Segregate {

    public static void main(String[] args) {
        // TODO Auto-generated method stub

        int a[]={0,1,0,1,0,0,1};

        int j=0;

        for(int i=0;i<a.length;i++){
            if(a[i]==0){
                a[j++]=a[i];
            }
        }
        while(j<a.length){
            a[j++]=1;
        }

        for(int k=0;k<a.length;k++){
            System.out.print(a[k]+" ");
        }

    }
}
//0 0 0 0 1 1 1
```