**DAY-3**

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc =new Scanner(System.in);

int cnt=sc.nextInt();

boolean found=false;

int[] arr=new int[cnt];

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

int p=sc.nextInt();

arr[i]=p;

}

System.out.println("search element");

int num=sc.nextInt();

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

if(num==arr[i]){

System.out.println(i);

found=true;

}

}

if(!found){

System.out.println("Not found");

}

}

}

**2.Duplicate Elements**

**Problem Statement:**

Write a program to identify and print all duplicate elements in a 1D array. If no duplicates are found, print "No duplicates".

**Input:**

* First line: Integer n (number of elements)
* Second line: n space-separated integers

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc =new Scanner(System.in);

int n=sc.nextInt();

int elements;

boolean found=false;

int[] arr=new int[n];

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

elements=sc.nextInt();

arr[i]=elements;

}

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

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

if(arr[i]==arr[j]){

found=true;

break;

}

}

}

if(!found){

System.out.println("No duplicates");

}

}

}

3.Left Rotation by K Position

Problem Statement:

Write a program to perform left rotation of a 1D array by k position.

Input:

● First line: Integer n — the size of the array

● Second line: n space-separated integers — the elements of the array

● Third line: Integer k — number of positions to rotate the array to the left

Output:

● A single line containing the rotated array elements after k left rotations.

import java.util.Scanner;

public class Main

{

public static void main(String[] args) {

Scanner sc =new Scanner(System.in);

int n=sc.nextInt();

int elements;

int[] arr=new int[n];

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

elements=sc.nextInt();

arr[i]=elements;

}

System.out.println("Enter the position to be rotated");

int rot=sc.nextInt();

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

if(i==rot){

for(int j=rot;j<n;j++){

System.out.print(arr[j]);

}

}

}

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

if(i<rot){

System.out.print(arr[i]);

}

}

}

}