

CSA0985 – PROGRAMMING IN JAVA FOR MOBILE APPLICATIONS

NAME : O.MURALI KRISHNA MOHAN

REG NO : 192125053

ASSIGNMENT :

```
1. public class RemoveDuplicateInArrayExample{
public static int removeDuplicateElements(int arr[], int n){
    if (n==0 || n==1){
        return n;
    }
    int[] temp = new int[n];
    int j = 0;
    for (int i=0; i<n-1; i++){
        if (arr[i] != arr[i+1]){
            temp[j++] = arr[i];
        }
    }
    temp[j++] = arr[n-1];
    for (int i=0; i<j; i++){
        arr[i] = temp[i];
    }
    return j;
}
```

```
public static void main (String[] args) {
    int arr[] = {10,20,20,30,30,40,50,50};
    int length = arr.length;
    length = removeDuplicateElements(arr, length);
    for (int i=0; i<length; i++)
        System.out.print(arr[i]+" ");
}
}
```

```
2. public class SecondSmallestInArrayExample{
public static int getSecondSmallest(int[] a, int total){
    int temp;
```

```

for (int i = 0; i < total; i++)
{
    for (int j = i + 1; j < total; j++)
    {
        if (a[i] > a[j])
        {
            temp = a[i];
            a[i] = a[j];
            a[j] = temp;
        }
    }
}

return a[1]; // 2nd element because index starts from 0
}

public static void main(String args[]){
int a[]={1,2,5,6,3,2};
int b[]={44,66,99,77,33,22,55};
System.out.println("Second smallest: "+getSecondSmallest(a,6));
System.out.println("Second smallest: "+getSecondSmallest(b,7));
}}

```

```

3. import java.util.Arrays;
public class LargestNumberSample {
    public static void main(String args[]){
        int array[] = {10, 20, 25, 63, 96, 57};
        int size = array.length;
        Arrays.sort(array);
        System.out.println("sorted Array ::"+Arrays.toString(array));
        int res = array[size-2];
        System.out.println("2nd largest element is ::"+res);
    }
}

```

```

4. import java.io.*;
import java.util.*;

class GFG {
    private static void FindCommonElemet(String[] arr1,String[] arr2)
    {
        Set<String> set = new HashSet<>();
        for (int i = 0; i < arr1.length; i++) {

```

```

        for (int j = 0; j < arr2.length; j++) {
            if (arr1[i] == arr2[j]) {
                set.add(arr1[i]);
                break;
            }
        }
    }
    for (String i : set) {
        System.out.print(i + " ");
    }
}
public static void main(String[] args)
{
    String[] arr1
        = { "Article", "in", "Geeks", "for", "Geeks" };
    String[] arr2 = { "Geeks", "for", "Geeks" };
    System.out.println("Array 1: " + Arrays.toString(arr1));
    System.out.println("Array 2: " + Arrays.toString(arr2));
    System.out.print("Common Elements: ");
    FindCommonElement(arr1, arr2);
}
}

```

```

5. public class Vowel_Check {
    public static void main(String[] args) {
        try {
            String text = "Java handling and managing exceptions ";
            System.out.println("Original string: " + text);
            checkVowels(text);
            System.out.println("String contains vowels.");
        } catch (NoVowelsException e) {
            System.out.println("Error: " + e.getMessage());
        }
    }

    public static void checkVowels(String text) throws NoVowelsException {
        boolean containsVowels = false;
        String vowels = "aeiouAEIOU";
        for (int i = 0; i < text.length(); i++) {
            char ch = text.charAt(i);
            if (vowels.contains(String.valueOf(ch))) {
                containsVowels = true;
            }
        }
        if (!containsVowels) {
            throw new NoVowelsException("String does not contain vowels.");
        }
    }
}

```

```
        break;
    }
}
if (!containsVowels) {
    throw new NoVowelsException("String does not contain any vowels.");
}
}
}
class NoVowelsException extends Exception {
    public NoVowelsException(String message) {
        super(message);
    }
}
```