June 28

Question 1

import java.util.Arrays;

import java.util.Scanner;

public class SecondLargest1 {

    public static void main(String[] args) {

        int arr1[];

        int size\_of\_array;

        Scanner array\_input = new Scanner(System.in);

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

        size\_of\_array = array\_input.nextInt();

        arr1 = new int[size\_of\_array];

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

        for (int i = 0; i < size\_of\_array; i++) {

            arr1[i] = array\_input.nextInt();

        }

        System.out.println("The array is: " + Arrays.toString(arr1));

        Arrays.sort(arr1);

        array\_input.close();

        System.out.print("The second largest number: " + arr1[size\_of\_array - 2]);

    }

}

Question 2

import java.util.Scanner;

public class FirstRepeatedChar2 {

    public static void main(String[] args) {

        String str;

        Scanner string\_input = new Scanner(System.in);

        System.out.println("Enter a string: ");

        str = string\_input.nextLine();

        int index = findFirstRepeated(str);

        if (index != -1) {

            System.out.println("First Repeated character: " + str.charAt(index) + " found at index: " + index);

        } else {

            System.out.println("No repeated character found");

        }

        string\_input.close();

    }

    private static int findFirstRepeated(String str) {

        for (int i = 0; i < str.length(); i++) {

            char c = str.charAt(i);

            for (int j = i + 1; j < str.length(); j++) {

                if (c == str.charAt(j)) {

                    return j;

                }

            }

        }

        return -1;

    }

}

Question 3

import java.util.Arrays;

import java.util.Scanner;

public class MostRepeatedNum3 {

    public static void main(String[] args) {

        int array[];

        int temp, array\_length, count, countofmax = 1;

        Scanner scanner = new Scanner(System.in);

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

        int size = scanner.nextInt();

        array = new int[size];

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

        for (int i = 0; i < array.length; i++) {

            array[i] = scanner.nextInt();

        }

        Arrays.sort(array);

        array\_length = array.length;

        countofmax = 1;

        temp = array[0];

        count = 1;

        for (int i = 1; i < array\_length; i++) {

            if (array[i] == array[i - 1])

                count++;

            else {

                if (count > countofmax) {

                    countofmax = count;

                    temp = array[i - 1];

                }

                count = 1;

            }

        }

        if (count > countofmax) {

            countofmax = count;

            temp = array[array\_length - 1];

        }

        System.out.println("The most frequent number is:" + temp);

        System.out.println("The number of times it is repeated is:" + countofmax);

        scanner.close();

    }

}