Program-1

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/*Arrar SUM, Sort a numeric array and a string array*/
import java.util.Arrays;
import java.util.*;
public class ex1
{
public static void main(String[] args)
{
  int[] my_array1 = {
      1789, 2035, 1899, 1456, 2013,
      1458, 2458, 1254, 1472, 2365,
      1456, 2165, 1457, 2456};
  String[] my_array2 = {
      "Java",
                        "Python",
      "PHP",
      "C#",
      "C Programming",
      "C++"
    };
  System.out.println("Original numeric array : "+Arrays.toString(my_array1));
  Arrays.sort(my_array1);
  System.out.println("Sorted numeric array : "+Arrays.toString(my_array1));
  System.out.println("Original string array: "+Arrays.toString(my_array2));
  Arrays.sort(my_array2);
  System.out.println("Sorted string array : "+Arrays.toString(my_array2));
        int sum = 0;
```

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for (int i : my_array1)
  sum += i;
        System.out.println("The sum is " + sum);
        double average = sum / my_array1.length;
  System.out.println("Average value of the array elements is: " + average);
  }
}
Program-2
/*Find the common elements between two */
import java.util.*;
public class ex2
{
public static void main(String[] args)
  {
    String[] array1 = {"Python", "JAVA", "PHP", "C#", "C++", "SQL"};
    String[] array2 = {"MySQL", "SQL", "SQLite", "Oracle", "PostgreSQL", "DB2", "JAVA"};
    System.out.println("Array1 : "+Arrays.toString(array1));
    System.out.println("Array2 : "+Arrays.toString(array2));
    HashSet<String> set = new HashSet<String>();
    for (int i = 0; i < array1.length; i++)
      for (int j = 0; j < array2.length; j++)
      {
         if(array1[i].equals(array2[j]))
```

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{
           set.add(array1[i]);
         }
      }
    }
    System.out.println("Common element: "+(set)); //OUTPUT: [THREE, FOUR, FIVE]
  }
}
Program-3
import java.util.Scanner;
public class cd12
{
  public static void main(String[] args) {
                        Scanner scanner = new Scanner(System.in);
    System.out.print("Enter the size of the array: ");
    int size = scanner.nextInt();
    int[] array = new int[size];
    System.out.println("Enter " + size + " elements:");
    for (int i = 0; i < size; i++) {
      array[i] = scanner.nextInt();
    }
    int maxElement = array[0];
    for (int i = 1; i < size; i++) {
```

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if (array[i] > maxElement) {
    maxElement = array[i];
}

System.out.println("The maximum element in the array is: " + maxElement);

scanner.close();
}
```