1. Find the largest among 3 user entered nos. at the command prompt using Java

class Lab02Q1 {

public static void main(String[] args) {

int largest = Integer.parseInt(args[0]);

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

int x = Integer.parseInt(args[i]);

if (largest < x) largest = x;

}

System.out.println("Largest: " + largest);

}

}

Output:

java Lab02Q1.java 3 9 4

Largest: 9

1. Accept 10 numbers from command line and check how many of them are even and how many are odd.

public class Lab02Q2 {

public static void main(String[] args) {

int even = 0;

int odd = 0;

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

int x = Integer.parseInt(args[i]);

if (x % 2 == 0) even++;

else odd++;

}

System.out.println("No of even: " + even);

System.out.println("No of odd: " + odd);

}

}

Output:

java Lab02Q2.java 3 9 4 5 8 3 6 1 0 2

No of even: 5

No of odd: 5

1. Program to sort the user entered list of numbers of any size.

import java.util.Arrays;

public class Lab02Q3 {

public static void main(String[] args) {

int[] arr = new int[args.length];

for (int i=0; i<args.length; i++) arr[i] = Integer.parseInt(args[i]);

Arrays.sort(arr, 0, arr.length);

System.out.print("Sorted Array: ");

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

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

}

}

}

Output:

java Lab02Q3.java 3 9 4 5 8 3 6 1 0 2

Sorted Array: 0 1 2 3 3 4 5 6 8 9

1. Program to find no. of objects created out of a class using ‘static’ modifier.

public class Lab02Q4 {

static int noOfCalls = 0;

Lab02Q4() {

noOfCalls++;

}

public static void main(String[] args) {

Lab02Q4 lab1 = new Lab02Q4();

Lab02Q4 lab2 = new Lab02Q4();

Lab02Q4 lab3 = new Lab02Q4();

System.out.println(“No of calls: ” + noOfCalls);

}

}

Output:

No of calls: 3

1. Find the no. of occurrence of each element in a user entered list of nos.

public class Lab02Q5 {

public static void main(String[] args) {

int[] arr = new int[100];

for (int i=0; i<arr.length; i++) arr[i] = 0;

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

int x = Integer.parseInt(args[i]);

++(arr[x]);

}

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

if (arr[i] > 0) {

System.out.println("Occurrence of " + i + ": " + arr[i]);

}

}

}

}

Output:

java .\Lab02Q5.java 15 63 87 42 63 15 42 87 15 63

Occurrence of 15: 3

Occurrence of 42: 2

Occurrence of 63: 3

Occurrence of 87: 2

1. Find sum of each diagonal (left & right) elements separately of a user entered 3 X 3 matrix in Java.

public class Lab02Q6 {

public static void main(String[] args) {

int[] arr = new int[args.length];

for (int i=0; i<args.length; i++) arr[i] = Integer.parseInt(args[i]);

int leftDiag = 0;

int rightDiag = 0;

for (int i=0; i<3; i++) {

for (int j=0; j<3; j++) {

if (i == j) leftDiag += arr[i\*3 + j];

if ((i+j) == (3-1)) rightDiag += arr[i\*3 + j];

}

}

System.out.println("Sum of left diagonal: "+leftDiag);

System.out.println("Sum of right diagonal: "+rightDiag);

}

}

Output:

java .\Lab02Q6.java 2 5 1 7 8 3 9 4 6

Sum of left diagonal: 16

Sum of right diagonal: 18