1:Create MathOperation class,create overloaded add method for accepting different data type and show addition (use:Function Overloading)

Write method accepting variable arguments of type int and show sum of all elements(use:varargs)

Create tester class and call methods from MathOperation class.

**package** Math;

**public** **class** Math\_Operations {

**public** **static** **void** add(**int** n1, **int** n2) {

System.***out***.println("Sum = " + (n1 + n2));

}

**public** **static** **void** add(**int** n1, **int** n2, **int** n3) {

System.***out***.println("Sum = " + (n1 + n2 + n3));

}

**public** **static** **void** add(**double** n1, **double** n2) {

System.***out***.println("Sum = " + (n1 + n2));

}

**public** **static** **void** add(**double** n1, **double** n2, **double** n3) {

System.***out***.println("Sum = " + (n1 + n2 + n3));

}

**public** **static** **void** add(**int**... a) {

System.***out***.println("Accepting Numbers:" + a.length);

**int** total = 0;

**for** (**int** no : a) {

total = total + no;

}

System.***out***.println("Sum of " + a.length + " element is " + total);

}

}

**package** Math;

**import** java.util.Scanner;

**public** **class** Tester\_MATH {

**public** **static** **void** main(String [] args) {

Scanner sc = **new** Scanner(System.***in***);

Math\_Operations.*add*(4, 6);

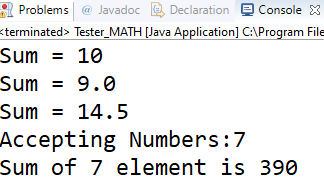
Math\_Operations.*add*(3.4, 5.6);

Math\_Operations.*add*(4.6,3.4, 6.5);

Math\_Operations.*add*(3,4,2,352,2,23,4);

}

}



2:Create a menu driven program for performing operations on array;

1:Show Array

2:Add element

3:search element

4:doubleArrayElement

5:sortArray

package Assignment\_2\_1;

import java.util.Arrays;

import java.util.Scanner;

public class arrnew1 {

public static void main(String[] args) {

Scanner sc = new Scanner(System.in);

int[] arr = new int[5];

int ch, ind = 0, val = 0, index = 0;

do {

System.out

.println("\n1.Show Array 2.Add Element 3.Search Element 4.Double Array Element 5.Sort 6.Exit");

System.out.println("Enter Choice:");

ch = sc.nextInt();

switch (ch) {

case 1:

{

for (int i : arr) {

if (i != 0)

System.out.print(i + " ");

}

System.out.println("\n");

break;

}

case 2:

System.out.println("Enter Numbers:");

if (index < arr.length) {

arr[index] = sc.nextInt();

// System.out.println(index+" "+arr[index]);

index++;

} else

System.out.println("Array is full!!!");

break;

case 3:

{System.out.println("Enter an element you want to search: ");

boolean status = false;

int ele = sc.nextInt();

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

if (ele == arr[i] ) {

status = true;

ind = i;

val = arr[i];

break;

}

}

if (status == true)

System.out.println("Entered element found at index = " + ind + "\nElement = " + val);

if(status==false)

System.out.println(ele+" not found!!!");

//val=sc.nextInt();

//System.out.println(val+" found at index no. "+Arrays.binarySearch(arr, val));

break;}

case 4:

int [] temp = new int[5];

System.out.println("\nArray before double:");

for (int i : arr)

System.out.print(i + " ");

System.out.println("\nArray after double:");

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

temp[i]=arr[i] \* 2;

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

}

break;

case 5:

// Arrays.sort(arr);

// System.out.println("Sorted Array : "+Arrays.toString(arr));

// for(int i=)

for(int i=0;i<arr.length-1;i++)

{

for(int j=0;j<arr.length-i-1;j++)

{

if(arr[j]>arr[j+1])

{

int temp1=arr[j];

arr[j]=arr[j+1];

arr[j+1]=temp1;

}

}

}

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

for(int i:arr)

System.out.print(i+" ");

break;

case 6:

System.out.println("Exiting...");

System.exit(1);

default:

System.out.println("Enter a valid choice!!!");

}

} while (ch != 6);

}

}

