



CSE215L Programming Language II Lab

North South University

LAB 04

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Objective:

- To learn about array
- To learn to use array to solve different problems

Task:

- I. Declare an integer array of size 6, initialize it with user input, calculate and print the average. Now calculate the percentage of numbers that are above that average.

For example: if 3 of the array elements are greater than average, percentage is:

$$3 * 100 / 6 = 50\%$$

(Done in Opposite page)

- II. Take an integer from user, generate that many Fibonacci numbers and store in an array. Display the array.

Sample output:

Enter a number: 8

First 8 Fibonacci numbers: 0 1 1 2 3 5 8 13

- III. Take two 3X3 array and add their values. **(Done in Opposite page)**

- IV. Take a 3X3 array and initialize it with these values:

3	4	9
2	9	11
4	5	0

Calculate and print the sum for each row, column and both diagonals.

- V. Take an integer array and print only the numbers that are in consecutive orders of 3.

For example:

Enter size: 12

Enter numbers: 1 2 3 2 2 2 11 4 4 4 3 3

Output: 2 4

Solution to Task#1:

```
import java.util.Scanner;
import javax.swing.JOptionPane; //for a cool interface :v

public class lab4_1 {

    public static void main(String[] args) {

        int[] arr = new int[6]; //array declaration

        int sum=0, count=0;
        double average;

        Scanner sc = new Scanner(System.in);

        //take input
        for(int i=0; i<6; i++){
            arr[i] = sc.nextInt();
            sum+=arr[i];
        }

        average = sum/6;

        for(int i=0; i<6; i++){
            if(arr[i]> average)
                count++;
            System.out.println(count);
        }

        double result = (count*100)/6;

        //Just to show off ;)
        JOptionPane.showMessageDialog(null, result, "Percentage", 1);

        //JOptionPane.showMessageDialog(parentComponent,
        message, title, messageType);

    }
}
```

Solution to Task#3:

```
import java.util.Scanner;

public class lab4_3 {
    public static void main(String[] args) {
        int[][] arr = new int[3][3];
        int arr2[][] = new int[3][3];
        int [][]result = new int[3][3];
        //all initializations are valid;

        Scanner sc = new Scanner(System.in);

        //take input for arr
        for(int i=0; i<3; i++)
            for(int j=0; j<3; j++)
                arr[i][j] = sc.nextInt();

        //take input for arr2
        for(int i=0; i<3; i++)
            for(int j=0; j<3; j++)
                arr2[i][j] = sc.nextInt();

        //calculate result
        for(int i=0; i<3; i++)
            for(int j=0; j<3; j++)
                result[i][j] = arr[i][j] + arr2[i][j];

        //ouptut result

        System.out.println("\nRESULT OUTPUT:");
        for(int i=0; i<3; i++){
            for(int j=0; j<3; j++)
                System.out.print(result[i][j]+"\\t");
            System.out.println();
        }
    }
}
```