**Week 5 lab exercises**

**Exercise 1**

open a project named **ArrayDemoProject** and create a package named **week5.exercises**, create a class named **ArrayDemo** without main method. create another class named **Test** with **main** method.

define a method named **arrayOfAge** inside ArrayDemo class. declare an array of known **size** to store age of **5** peoples but the values are unknown. read the values from users for all 5 ages. And lastly call **arrayOfAge** method in main method under **Test** class and print all the values.

Output will be as follows:

Enter age 1:20

Enter age 2:23

**Enter age 3:34**

Enter age 4:21

Enter age 5:22

The age you entered are :20 23 34 21 22

**Exercise 2**

Suppose that you have mistakenly key in age 3 as 34 which supposed to be 24. now edit the array so that **age 3 will be 24**. and print all ages after edit.

age[2] = 24;

The age after edit :20 23 **24** 21 22

and find the average of ages after correction

**Exercise 3**

define a method named **arrayOfName** inside ArrayDemo class. declare an array of **unknown** size to name of players also the are unknown. read the size and values from users for all players name. And lastly call **arrayOfName** method in main method under Test class and print all the values.

Output will be as follows:

How many names you you want to enter: 4

Enter top 4 names of the player in bd cricket team :

Enter name 1:masrafee

Enter name 2:musfiq

Enter name 3:sakib

Enter name 4:tamim

The top 4 names you entered are :masrafee musfiq sakib tamim

**Exercise 4:**

declare an array directly without using new key word and assign values. print the sum of all values of the array. Example of array **int**[] values = {5, 5, 5, 5, 10, 10, 20, 20};

expected output:

Sum of all values are: 80

**Exercise 5**

define a method named **arrayOfCgpa** inside ArrayDemo class. Write a method named showSquarePattern inside ArrayDemo to print a square pattern with # character.

Sample Output:

Input the number of characters for a side: 4

# # # #

# # # #

# # # #

# # # #

**Exercise 6:**

define a method named **arrayOfCgpa** inside ArrayDemo class. declare a 2d array of known size 2x2. read the values from users. And lastly call **arrayOfCgpa** method in main method under Test class and print all the values.

Output will be as follows:

Enter cgps of student semester wise accordingly :

Enter cgps of student 1 semester 1:2.5

Enter cgps of student 1 semester 2:3.5

Enter cgps of student 2 semester 1:4.0

Enter cgps of student 2 semester 2:3.9

cgpa matrix are given below:

2.5 3.5

4.0 3.9

Task 7: Write a class named Addresses. Declare four variables named **int** sectorNo, roadNO,houseNo;String thana;Assign variables using constructor. Inside Test class create five objects of Address class using parameterized constructor. declare an array of object. the type of array is Addresses. Now assign each of the addresses in position of object array. lastly print the addresses. your output should be like below

Address 1:House no 3, Road No 3, Sector no 3, Thana Uttara

Address 2:House no 4, Road No 4, Sector no 4, Thana Uttara

Address 3:House no 5, Road No 5, Sector no 5, Thana Uttara

Address 4:House no 5, Road No 5, Sector no 5, Thana Uttara

Address 5:House no 5, Road No 5, Sector no 5, Thana Uttara