**Tutorial 8 (Part B)**

**Part B – Two-dimensional Array**

1. Demonstrate how to store the student information as shown below into two (2) one-dimensional arrays and one (1) two-dimensional array by using C++ code. Briefly explain your answers.

|  |  |
| --- | --- |
| student name | student Index |
| Anne | x1001 |
| Benson | x1039 |
| Cherry | x1142 |
| Donald | x1092 |
| Edison | x1003 |

1. Given the following code segment.

int x[2][3] = { {14,3,-5}, {0,46,7} };

1. Illustrate the array above in a row-column format.
2. Use a *nested-for* loop to prompt 6 contiguous numbers from the user and assign the values to the array x.
3. Use a nested-for loop to read the values from array x and write code to display the total, average, maximum number and minimum number.
4. Declare a two-dimensional array called Arr2D of integer type which has 2 rows and 4 columns. Then write appropriate code segments for the following:
5. Use *for* loop to obtain input from the user and store it into the Arr2D array.
6. Find and display the total of 2nd row of the Arr2D array.
7. Find and display the total of last column of the Arr2D array.
8. Find the grand total and average of all the values stored in the Arr2D array.
9. Given the fruit price list from three different stores as shown below.

|  |  |  |  |
| --- | --- | --- | --- |
| Fruit | Store A | Store C | Store T |
| Orange | 0.80 | 1.00 | 0.69 |
| Apple | 1.20 | 1.50 | 1.80 |
| Pear | 1.50 | 1.55 | 1.29 |
| Peach | 2.00 | 1.99 | 1.80 |

1. Demonstrate how to store the prices into a two-dimensional array by using C++ code. Briefly explain your answer.
2. Write a function named “get\_cheap\_apple” and use for loop to determine and display the store that sells the cheapest apple.
3. Write a function named “storeC\_cheapest\_fruit “ and use for loop to determine and display the cheapest fruit that is sold by Store C.
4. Write a function name “get\_cheapest\_fruit” and use for loop to determine the cheapest fruit amongst all stores. Display the store name.