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| --- | --- |
| **Total Marks:** | **7.5** |
| **Obtained Marks:** |  |

**DATA STRUCTURE**

**AND**

**ALGORITHM**

**Lab Report # 03**

**Submitted To: Mam Tehreen**

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**Submitted By**: **Hammad Qureshi**  .

**Reg. Numbers: 2112114**

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**Question no 1:**

**Write a program that can multiply, add, and Subtract 3x3**

**Procedure**

* Open the **Dev c++** software on your laptop.
* Go to new file and click the project then go to console application and write you **C++ code**.
* Declare mainand call function.
* Declare variable of integer type to store row and column count.
* Declare variable of integer type array to store first and second matrices element.
* Declare variable of integer type array to store resukt element.
* Using for loop for the counter.
* Display these statement on screen using cout statement.
* Press **F9** for compile and **F10** for run.
* Write your code in Word file.
* Take the Screen short of your output and paste it in Word file.

**Code:**

|  |
| --- |
| #include <iostream>  using namespace std;  int main()  {  int rowCount, columnCount, i, j;  int firstMatrix[3][3], secondMatrix[3][3], resultMatrix[3][3];  cout<<"Number of rows of matrices to be Added : ";  cin>>rowCount;  cout<<"Number of columns matrices to be Added : ";  cin>>columnCount;  cout<<"Elements of first matrix : \n";  for (i = 0; i < rowCount; i++)  for (j = 0; j < columnCount; j++)  cin>>firstMatrix[i][j];  cout<<"Elements of second matrix : \n";  for (i = 0; i < rowCount; i++)  for (j = 0; j < columnCount; j++)  cin>>secondMatrix[i][j];  cout<<"Addition of entered matrices : \n";  for (i = 0; i < rowCount; i++)  {  for (j = 0; j < columnCount; j++)  {  resultMatrix[i][j] = firstMatrix[i][j] + secondMatrix[i][j];  cout<<resultMatrix[i][j]<<"\t";  }  cout<<"\n";  }  cout<<"Subtraction of entered matrices : \n";  for (i = 0; i < rowCount; i++)  {  for (j = 0; j < columnCount; j++)  {  resultMatrix[i][j] = firstMatrix[i][j] - secondMatrix[i][j];  cout<<resultMatrix[i][j]<<"\t";  }  cout<<"\n";  }  cout<<"Multiplication of entered matrices : \n";  for (i = 0; i < rowCount; i++)  {  for (j = 0; j < columnCount; j++)  {  resultMatrix[i][j] = firstMatrix[i][j] \* secondMatrix[i][j];  cout<<resultMatrix[i][j]<<"\t";  }  cout<<"\n";  }  return 0;  } |

**CONSOLE SCREEN:**

