**Instructions: Please read carefully**

* Please rename this file as only your ID number **(e.g. 18-\*\*\*\*\*-1.docx or 18-\*\*\*\*\*-1.pdf).**
* Submit the file before **4:40 PM on 14/11/2024** in the **Teams** labeled Lab **Task 3.**

**Do not Copy!!!**

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| **Question 1:**  **Question 1**  Find the summation of the boundary elements for the given array. Take input from user keyboard.   |  |  |  |  |  | | --- | --- | --- | --- | --- | | 1 | 2 | 3 | 4 | 5 | | 14 | 15 | 16 | 17 | 6 | | 13 | 20 | 9 | 18 | 7 | | 12 | 11 | 10 | 9 | 8 |   Hint: max row size = m = 4 and max column size = n = 5.  If(i==0||i==m-1||j==0||j==n-1){  sum= arr[i][j] + sum;  }  For example,  Matrix\_1:  **1 2 3 4 5**  **14 15 16 17 6**  **13 1 9 18 7**  **12 11 10 9 8**  Output:  **Summation is: 105** |
| **Your code here:**  #include <iostream>  using namespace std;  int main()  {      int row, column, sum = 0;      cout << "Showing  the Matrix:" << endl;      cout << "Number of Rows: ";      cin >> row;      cout << "Number of Columns: ";      cin >> column;      int matrix[row][column];      for(int i = 0; i < row; i++) {          for(int j = 0; j < column; j++) {              cout << "Element [" << i << "][" << j << "]: ";              cin >> matrix[i][j];          }      }      for(int i = 0; i < row; i++) {          for(int j = 0; j < column; j++) {              if(i == 0 || i == row - 1 || j == 0 || j == column - 1) {                  sum += matrix[i][j];              }          }      }      cout << "Summation of the boundary matrix  is: " << sum;      return 0;  } |
| **Your whole Screenshot here: (Console Output):** |

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| **Question 2:**  Write a program with appropriate data structure to keep records of 10 students. Each student will have the following information:   * 1. Unique ID (you can use *integer* for this)   2. Number of Credits Completed   3. CGPA   Print all the student’s ID whose CGPA is more than **3.75**.  Print all the student’s ID who has completed more than **50** credits. |
| **Your code here:**  #include<iostream>  using namespace std;  struct student  {    int id;    int credits;    float cgpa;  };  int main()  {      student students[10];  cout<<"Enter the all information of the students:"<<endl;  for(int i=0;i<10;i++)  {      cout<<"Student"<<i+1<<" :"<<endl;      cout<<"Enter the  students id"<<endl;      cin>>students[i].id;      cout<<"Enter credits complete by the students :"<<endl;      cin>>students[i].credits;      cout<<"Enter the   students cgpa: "<<endl;      cin>>students[i].cgpa;  }  cout<<"Students whos cgpa greater than 3.75 is :"<<endl;  for(int i=0;i<10;i++)  {      if(students[i].cgpa>3.75)      {          cout<<students[i].id<<" ";      }  }  cout<<endl;  cout<<"Students who complete more than 50 credits :"<<endl;  for(int i=0;i<10;i++)  {      if(students[i].credits>50)      {          cout<<students[i].id<<" ";      }  }  return 0;  } |
| **Your whole Screenshot here: (Console Output):** |