

Report No: 01

Report Name: User input two (2d) array as 2 *2 matrix then add and sub the array and show the result

Code:

```
#include <iostream>
using namespace std;

int main(){
    int row, col, i, j;
    cout << "Enter row size: ";
    cin >> row;
    cout << "Enter column size: ";
    cin >> col;
    int myArray1[row][col];
    int myArray2[row][col];
    int myArray3[row][col];
    int myArray4[row][col];

    for (i = 0; i < row; i++){
        cout << "Enter 1st Matrix [A] and [B]: ";
        for (j = 0; j < col; j++){
            cin >> myArray1[i][j];
        }
    }

    for (i = 0; i < row; i++){
        cout << "Enter 2nd Matrix [A] and [B]: ";
        for (j = 0; j < col; j++){
            cin >> myArray2[i][j];
        }
    }

    for (i = 0; i < row; i++){
        for (j = 0; j < col; j++){
            myArray3[i][j] = myArray1[i][j] + myArray2[i][j];
        }
    }

    for (i = 0; i < row; i++){
        for (j = 0; j < col; j++){
            myArray4[i][j] = myArray1[i][j] - myArray2[i][j];
        }
    }
```

```

    }

    cout << "\nSum of two matrix: " << endl;
    for(i = 0; i < row; i++){
        for (j = 0; j < col; j++){
            cout << myArray3[i][j] << " ";
        }
        cout << endl;
    }

    cout << "\nSub of two matrix: " << endl;
    for(i = 0; i < row; i++){
        for (j = 0; j < col; j++){
            cout << myArray4[i][j] << " ";
        }
        cout << endl;
    }
}

```

Input and Output:

Enter row size: 2
 Enter column size: 2
 Enter 1st Matrix [A] and [B]: 8 7
 Enter 1st Matrix [A] and [B]: 6 5
 Enter 2nd Matrix [A] and [B]: 4 3
 Enter 2nd Matrix [A] and [B]: 2 1

Sum of two matrix:
 12 10
 8 6

Sub of two matrix:
 4 4
 4 4

Report No: 02

Report Name: Input a string then reverse the string but make sure the character case are correct . Ex: “BanglaDesh”

Code:

```

#include<iostream>
using namespace std;

```

```

int main(){
    int i;
    string text;
    cout << "Enter a string: ";
    cin >> text;
    char size = text.length();
    char textArray[size];
    bool capitalArray[size];
    char reverseArray[size];

    for(i = 0; i < size; i++){
        textArray[i] = text[i];
        if(textArray[i] >= 65 && textArray[i] <= 96){
            capitalArray[i] = true;
        }else{
            capitalArray[i] = false;
        }
        if(textArray[i] >= 65 && textArray[i] <= 96){
            textArray[i] = textArray[i] + 32;
        }
    }

    for(i = (size - 1); i >= 0; i--){
        int j=(size-1)-i;
        reverseArray[j] = textArray[i];
    }

    for(i = 0; i < size; i++){
        if(capitalArray[i]){
            reverseArray[i] = reverseArray[i] - 32;
        }
    }

    cout << "Reverse case with proper index: ";
    for(i = 0; i < size; i++){
        cout << reverseArray[i];
    }
}

```

Input and Output:

Enter a string: BanglaDesh

Reverse case with proper index: HsedalGnab