NAME:SAYALI JIVAN CHAUDHARI

ROLL NO.:14

PRN NO.2023015400005055

1)Implementation of multi dimension array and its addition

```
#include <iostream>

using namespace std;


int main()

{

    int r, c, a[100][100], b[100][100],
sum[100][100], i, j;


    cout << "Enter number of rows (between
1 and 100): ";

    cin >> r;
```

```
    cout << "Enter number of columns
(between 1 and 100): ";
    cin >> c;

    cout << endl << "Enter elements of 1st
matrix: " << endl;

    // Storing elements of first matrix entered
by user.
    for(i = 0; i < r; ++i)
      for(j = 0; j < c; ++j)
      {
          cout << "Enter element a" << i + 1 << j
+ 1 << " : ";
          cin >> a[i][j];
```

```
    }

    // Storing elements of second matrix entered by user.
    cout << endl << "Enter elements of 2nd matrix: " << endl;
    for(i = 0; i < r; ++i)
      for(j = 0; j < c; ++j)
      {
         cout << "Enter element b" << i + 1 << j + 1 << " : ";
         cin >> b[i][j];
      }

    // Adding Two matrices
    for(i = 0; i < r; ++i)
```

```
        for(j = 0; j < c; ++j)
            sum[i][j] = a[i][j] + b[i][j];


    // Displaying the resultant sum matrix.
    cout << endl << "Sum of two matrix is: "
<< endl;
    for(i = 0; i < r; ++i)
        for(j = 0; j < c; ++j)
        {
            cout << sum[i][j] << "  ";
            if(j == c - 1)
                cout << endl;
        }


    return 0;
```

}

2)implementation of subtraction of multidimensional array

```
#include <iostream>

using namespace std;


int main()

{

   int r, c, a[100][100], b[100][100], sum[100][100], i, j;


   cout << "Enter number of rows (between 1 and 100): ";

   cin >> r;
```

```
    cout << "Enter number of columns
(between 1 and 100): ";
    cin >> c;

    cout << endl << "Enter elements of 1st
matrix: " << endl;

    // Storing elements of first matrix entered
by user.
    for(i = 0; i < r; ++i)
      for(j = 0; j < c; ++j)
      {
         cout << "Enter element a" << i + 1 << j
+ 1 << " : ";
         cin >> a[i][j];
      }
```

```
    // Storing elements of second matrix entered by user.
    cout << endl << "Enter elements of 2nd matrix: " << endl;
    for(i = 0; i < r; ++i)
      for(j = 0; j < c; ++j)
      {
         cout << "Enter element b" << i + 1 << j + 1 << " : ";
         cin >> b[i][j];
      }

    // Adding Two matrices
    for(i = 0; i < r; ++i)
       for(j = 0; j < c; ++j)
```

```
            sum[i][j] = a[i][j] + b[i][j];


    // Displaying the resultant sum matrix.
    cout << endl << "Sum of two matrix is: "
<< endl;
    for(i = 0; i < r; ++i)
        for(j = 0; j < c; ++j)
        {
            cout << sum[i][j] << "  ";
            if(j == c - 1)
                cout << endl;
        }


    return 0;
}
```