Name: Jay Bhattarai
USN - 1BM19IS198

Write a program to find the addition of matrix using friend function and with member function to read and display the matrix.

→

```
#include<iostream>
using namespace std;
class Matrix
{
    int matrix[100][100];
    int rowSize, colSize;
    public:
        void enterData();
        void displayData();
        friend Matrix operator+ (Matrix, Matrix);
};
void Matrix :: enterData()
{
    int i, j;
    cout<<"Enter the number of rows "<<endl;
    cin>>rowSize;
    cout<<"Enter the number of columns "<<endl;
    cin>>colSize;
    cout<<"Enter data for row and columns "<<endl;
    for(i=0; i<rowSize; i++)
    {
        for(j=0; j<colSize; j++)
            cin>>matrix[i][j];
    }
}
```

```
void Matrix::displayData()
{
    int i, j;
    for(i=0; i<rowSize; i++)
    {
        cout<<"  "<<endl;
        for(j=0; j<colSize; j++)
            cout<<"  "<<matrix[i][j];
    }
}.
```

```
Matrix operator + (Matrix m1, Matrix m2)
{
    Matrix m3;
    cout<<"Sum of two matrix is :\n"<<endl;
    for(int i=0; i<m1.rowSize; i++)
    {
        cout<<"  "<<endl;
        for(int j=0; j<m1.colSize; j++)
        {
            m3.matrix[i][j] = m1.matrix[i][j] + m2.matrix[i][j];
            cout<<"  "<<m3.matrix[i][j];
        }
    }
    return m3;
}.
```

```
int main()
{
    Matrix firstMatrix, secondMatrix;
    firstMatrix.enterData();
    firstMatrix.displayData();
    secondMatrix.enterData();
    secondMatrix.displayData();
    firstMatrix + secondMatrix;
    return 0;
}.
```