/\*

Create a class MAT of size m x n. Define addition matrix operations for MAT type objects using operator overloading.

\*/ #include<iostream> using namespace std;

class MAT

{

int a[2][2];

public:

void accept()

{

cout<<"\n\n Enter 4 element : "; for(int i=0;i<2;i++)

{

for(int j=0;j<2;j++) cin>>a[i][j];

}

}

void display()

{

cout<<endl; for(int j=0;j<2;j++)

cout<<" "<<a[i][j];

}

}

MAT operator+(MAT M2)

{

MAT M3;

for(int i=0;i<2;i++)

{

for(int j=0;j<2;j++)

{

M3.a[i][j]=a[i][j]+M2.a[i][j];

}

}

return M3;

}

MAT operator\*(MAT M2)

{

MAT M3;

for(int j=0;j<2;j++)

{

M3.a[i][j]=0;

for(int k=0;k<2;k++)

{

M3.a[i][j]=(a[i][k]\*M2.a[k][j])+M3.a[i][j];

}

}

}

return M3;

}

};

int main()

{

MAT M1,M2,M3;

cout<<"\n\n Enter Matrix M1 value: "; M1.accept();

cout<<"\n\n Enter Matrix M2 value: "; M2.accept();

M3=M1+M2;

cout<<"\n\n Addition of M1+M2 : "; M3.display();

M3=M1\*M2;

cout<<"\n\n Multiplication of M1\*M2 : "; M3.display();

return 0;

}

**Output**:

Enter Matrix M1 value:

Enter 4 element : 4

3

2

1

Enter Matrix M2 value:

Enter 4 element : 4

3

2

1

Addition of M1+M2 : 8 6

4 2

Multiplication of M1\*M2 : 22 15

10 7

Process exited after 11.52 seconds with return value 0 Press any key to continue . . .