S. Matrix Multiplicatiion

#include<iostream>

using namespace std;

class mm

{

private:

int a[2][2], b[2][2], c[2][2];

public:

void getdata()

{

cout << "Enter the first matrix:";

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

{

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

cin >> a[i][j];

}

cout << "\nEnter the second matrix: ";

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

{

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

cin >> b[i][j];

}

}

void mul()

{

int p, q, r, s, t, u, v;

p = (a[0][0] + a[1][1]) \* (b[0][0] + b[1][1]);

q = (a[1][1] + a[1][0]) \* b[0][0];

t = (a[0][1] + a[0][0]) \* b[1][1];

r = a[0][0] \* (b[0][1] - b[1][1]);

s = a[1][1] \* (b[1][0] - b[0][0]);

u = (a[1][0] - a[0][0]) \* (b[0][0] + b[0][1]);

v = (a[0][1] - a[1][1]) \* (b[1][1] + b[1][0]);

this->c[0][0] = p + s - t + v;

this->c[0][1] = r + t;

this->c[1][0] = q + s;

this->c[1][1] = p + r - q + u;

}

void showmul()

{

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

{

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

cout << this->c[i][j] << " ";

}

cout << endl;

}

};

int main()

{

mm o;

o.getdata();

o.mul();

o.showmul();

return 0;

}

/\*Output:-

Enter the first matrix:2 2

3 4

Enter the second matrix: 2 1

5 3

14 8 26 15

\*/