MatMulti.cpp

```cpp
#include<iostream>
#include<iomanip>
#include<vector>

using namespace std;


int main()
{
    cout << "Enter The Values of 1st Matrix number of rows(m) and columns(n):\n";
    cout << "m:\n";
    int m,n,p;
    cin >> m;
    cout <<"n\n";
    cin >> n;
    cout<< "Enter the Values of 2nd Matrix number of columns:\n";//As the number of rows os 2nd matrix is equal to 1st matrix columns;
    cout <<"p\n";
    cin>> p;
    vector<vector<double> >MatA(m,vector<double>(n,0.0));
    vector<vector<double> >MatB(n,vector<double>(p,0.0));
    vector<vector<double> >Res(m,vector<double>(p,0.0));

    cout<<"Enter the Values for matrixA:\n";
    for(int i=0;i<m;i++)
    {
        for(int j=0;j<n;j++)
        {
            cin >> MatA[i][j];
        }
    }
    cout <<"MatA\n";

    for(int i=0;i<m;i++)
    {
        for(int j=0;j<n;j++)
        {
            cout << MatA[i][j]<<" ";
        }
        cout <<"\n";
    }

    cout<<"Enter the values for MatrixB:\n";
    for(int i=0;i<n;i++)
    {
        for(int j=0;j<p;j++)
        {
            cin >> MatB[i][j];
        }
    }

    cout <<"MatB\n";
```

```
    for(int i=0;i<n;i++)
    {
        for(int j=0;j<p;j++)
        {
            cout << MatB[i][j]<<" ";
        }
        cout <<"\n";
    }

    cout << "Multiplication of MatA and MatB:\n";

    for(int i=0;i<m;i++)
    {
        for(int j=0;j<p;j++)
        {
            Res[i][j] = 0.0;
            for(int k=0;k<n;k++)
            {
                Res[i][j] = Res[i][j]+MatA[i][k]*MatB[k][j];

            }
            cout<<fixed<<setprecision(3)<<Res[i][j] <<" ";
        }
        cout <<"\n";
    }
}
```