

Lower Triangular CPP

```
#include <iostream>

using namespace std;

class LowerTri
{
private:
    int *A;
    int n;
public:
    LowerTri()
    {
        n=2;
        A=new int[2*(2+1)/2];
    }
    LowerTri(int n)
    {
        this->n=n;
        A=new int[n*(n+1)/2];
    }
    ~LowerTri()
    {
        delete []A;
    }
    void Set(int i,int j,int x);
    int Get(int i,int j);
    void Display();
    int GetDimension(){return n;}
};

void LowerTri::Set(int i,int j,int x)
{
    if(i>=j)
        A[n*(j-1)-(j-2)*(j-1)/2+i-j]=x;
}

int LowerTri::Get(int i,int j)
{
    if(i>=j)
        return A[n*(j-1)-(j-2)*(j-1)/2+i-j];
    return 0;
}

void LowerTri::Display()
{

```

```

    for(int i=1;i<=n;i++)
    {
        for(int j=1;j<=n;j++)
        {
            if(i>=j)
                cout<<A[n*(j-1)-(j-2)*(j-1)/2+i-j]<<" ";
            else
                cout<<"0 ";
        }
        cout<<endl;
    }
}

int main()
{
    int d;
    cout<<"Enter Dimensions";
    cin>>d;

    LowerTri lm(d);

    int x;
    cout<<"Enter All Elements";
    for(int i=1;i<=d;i++)
    {
        for(int j=1;j<=d;j++)
        {
            cin>>x;
            lm.Set(i,j,x);
        }
    }

    lm.Display();

    return 0;
}

```