#include <iostream>

using namespace std;

int adj\_mat[50][50] = { 0 }; // Proper initialization

int visited[50] = { 0 };

int main()

{

cout << "Enter no. of cities: ";

int n;

cin >> n;

string cities[n];

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

{

cout << "Enter City Name " << i << ": ";

cin >> cities[i];

}

cout << "\nYour cities are:\n";

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

{

cout << "City " << i << ": " << cities[i] << endl;

}

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

{

for (int j = i + 1; j < n; j++)

{

cout << "Enter distance between " << cities[i] << " and " << cities[j] << ": ";

cin >> adj\_mat[i][j];

adj\_mat[j][i] = adj\_mat[i][j]; // since it's undirected

}

}

cout << "\nAdjacency Matrix:\n\t";

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

{

cout << cities[i] << "\t";

}

cout << endl;

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

{

cout << cities[i] << "\t";

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

{

cout << adj\_mat[i][j] << "\t";

}

cout << endl;

}

return 0;

}