

```

1  // test_dijkstra.cpp
2  // c. 2017 T. O'Neil, C. Reilly
3
4  #include <iostream>
5  #include <fstream>
6  #include <string>
7  #include "Digraph.hpp"
8
9  using std::ifstream;
10
11 int main() {
12     Digraph g;
13     ifstream dataFile;
14     int numPoints, p, q, r;
15     string city;
16
17     dataFile.open("nqmq.dat");
18     dataFile >> numPoints;
19     for (int i = 0; i < numPoints; i++) {
20         dataFile >> city;
21         g.addVertex(city);
22     }
23     g.resetEdges();
24     dataFile >> p;
25     dataFile >> q;
26     dataFile >> r;
27     while (p > -1) {
28         g.addEdge(p, q, r);
29         g.addEdge(q, p, r);
30         dataFile >> p;
31         dataFile >> q;
32         dataFile >> r;
33     }
34     dataFile.close();
35
36     cout << "TEST 1. Los Angeles to Boston" << endl;
37     p = g.dijkstra(4, 1);
38     cout << "**** Final distance: " << p << " miles." << endl;
39     if (p != 2602) cout << "TEST FAILED";
40     else cout << "Test passed";
41     cout << endl << endl;
42
43     cout << "TEST 2. San Francisco to Miami" << endl;
44     p = g.dijkstra(7, 5);
45     cout << "**** Final distance: " << p << " miles." << endl;
46     if (p != 3056) cout << "TEST FAILED";
47     else cout << "Test passed";
48     cout << endl << endl;
49 }

```