

CME 212 Feedback hw1

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File: Graph.hpp

Line: 669

Could have been more creative with subgraph implementation of tiny and large datasets. More discipline in documentation expected.

File: shortest_path.cpp

Line: 37

Use `std::min_element` - will be more efficient

```
1 NodeIter nearest_node(const GraphType& g, const Point& point)
2 {
3     // HW1 #3: YOUR CODE HERE
4     if (g.num_nodes() == 0)
5         return g.node_end();
6     NodeIter min_ni = g.node_begin();
7     double minDist = norm_2((*min_ni).position() - point);
8     for (auto ni = g.node_begin(); ni != g.node_end(); ++ni){
9         auto node = *ni;
10        double tempDist = norm_2(node.position() - point);
11        if (tempDist < minDist){
12            minDist = tempDist;
13            min_ni = ni;
14        }
15    }
16    return min_ni;
17 }
```

File: shortest_path.cpp

Line: 139

Should check if iterator returned by `nearest_node` is valid

```
1 NodeIter closest_iter = nearest_node(graph, point);
2     auto root = *closest_iter;
3
4     int longest_path = shortest_path_lengths(graph, root);
```

Your hw1 grade:

8

Grade	Explanation
0	Did not try, did not hand in, or submitted too late with no late-days left.
1-2	Poor. Little to no serious attempt on this homework. Submission has barely changed since last homework (if any) or did not follow the guidelines at all.
3-4	Poor. Did not finish but a good attempt. Conveyed the message of understanding the material.
5-6	Fair. Code is buggy but could be debugged and/or some major conceptual errors. Code does work and produces output along homework guidelines.
7-8	Good. Code compiles and runs properly with mostly the right output. Some mistakes and minor conceptual errors that could be worked on.
9-10	Excellent. No or very few minor mistakes. Conveyed solid understanding of the material.
11	Exceptional. Showed extra insight. Implemented features that improved the code beyond what was requested.