**Project Extension Feedback**

**In one paragraph, describe what you did with your extension to someone who will just be using your application and doesn't know anything about programming. (Keep this answer, copy-paste to another document- if you want to submit it for the required quiz this week.)**

I have decided to slightly implement the change in the distance to source computation metric. Every map data source contains additional information about a name of the street (edge) and its type. So far I have counted eight different road types (motorway, motorway\_link, primary, residential, secondary, tertiary, trunk, unclassified).

I have implemented queue comparison based on the type of the road which leads to the neighbor. Highways and motorways are privileged over country and dirt roads.

The solution takes the road which leads to the node neighbor and in time of addition into the queue, it evaluates its value.

In a mash of similar routes, it does not have much advantage in search than BFS algorithm. On the other hand, I believe that in the mash of different routes, where ending point ends close to the highway offers significant improvement.

FEEDBACK #1

For a non programmer description I found it to complex (queue comparison, neighbors, BFS). A more high level description without going into the details would have been sufficient.

FEEDBACK #2

Really useful extension! But in this part of the submission you must have described your application to the user, but you use too much of technical jargon, for instance BFS. Nevertheless good job!

FEEDBACK #3

This description is about extension of the project

The description does not use technical jargon.

There are extra steps tha can be made to develop this extension.

FEEDBACK #4

The extension objective and benefits are clear, it would be interesting to have more details on how the evaluation of the roads is done.

**In one-two paragraphs, describe what you did with your extension to someone else on the same project team. What problems did you encounter and how did you fix them? (Keep this answer, copy-paste to another document- if you want to submit it for the required quiz this week.)**

First I am not sure if there are any other road types than I have found out. More specification would be nice to be sure.

Second, this solution does not try to come with any faster or slower way to find a path. It only changes the way to evaluate the priority queue.

To change evaluation metric it is necessary to manually comment/uncomment MapNode compareTo method code.

Few more additional fixes and refactoring was made during this week.

Deeper implementation with an option for UI would require much more time and drill-down more code.

As I was thinking, for finding an ideal path between starting and ending point should be used a metric which would be a combination of several factors such as road type, distance from the source, road blocks (traffic jams, constructions), drive cost (toll), etc. Therefore simple metric such as air-distance from source is not in praxis enough.

FEEDBACK #1

I like your extension, but here I would have liked more detail. What did you change to your code? If I would need to change your code or make additions, where do I need to look?

FEEDBACK #2

Great explanation with accurate description of existing possible further tasks and possible ways of solving them.

FEEDBACK #3

The student well has described the extension of the project.

This extension is useful and very interesting.

For this extension MapGraph, MapNode and MapEdges classes were changed.

FEEDBACK #4

Agree with the challenges stated. As mentioned at the first point, would be interesting to have more actual details on how the alternative comparison method works.