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### THIRD STATUS REPORT UPDATE

(This one is going to be a little shorter than the rest, so apologies)

#### **What did you do the past week?**

- My work this week was primarily (actually, almost completely), focused on the implementation of the adjacency graph and working out everything. Because there were a lot of bugs surrounding my initial implementation, I wanted to make sure that specifically this graph worked, since it is the primary crux of the navigation application and paramount to mapping. I tested out multiple issues surrounding the adjacency graph with multiple paths to sort out any bugs, and I was able to check them all out. The adjacency graph is officially working almost completely!
- I also put more comments in the code to help myself follow along with everything going on and make sure that I wasn't going to touch anything that would cause my application to go MAJORLY out of whack.

#### **What did you accomplish/struggle with?**

- I was able to debug out all of the kinks in the adjacency graph. Honestly there were a lot more issues with the code than I was initially anticipating. I rewrote the entire adjacency graph to make sure everything was connecting, but at some points again the adjacency graph was taking some liberties with the actual code. I also fixed the vertex label to remove the true/false statement and was trying to do some research when these maps take liberties to see if I could identify my issue.
- However, the final solution to the problem was actually rather simple: I screwed up on the data implementation of the individual vertices. Because the vertices have a unique identifier as data, I used one word to symbolize some points. For example, each Laundry or Trash location on each floor was labelled as "Laundry" or "Trash" respectively. Because of this... some of my vertices were logically equivalent to one another, and that's why the code was taking liberties. The second I fixed this issue, legitimately the pathfinding ran as expected.

#### **What are you planning on doing the following week?**

- NOW THAT I FINALLY FIXED THE ADJACENCY GRAPH AND IT IS WORKING PROPERLY, again tinkering with the application to ensure that vertices are being passed as parameters instead of the data I have been using
- Get the pedometer to work and update the weights to reflect the actual size of the building, I had started to map out the stairs and some places, but I don't have enough information yet to correctly update everything, if you get this to work, figure out a way for the instructions to be labelled one at a time as your walking along the path.
- Fix the application graphically, this can cover a wide range of options.
- If there is time, also start writing a little bit of the thesis to get a head start on it.