SWEN30006 Assignment 1 - Report

Workshop 09, Team 02
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This isn't actually what we'll put in the final report, I just wanted to keep track of the changes I was making.

1 List of Changes

- Added the mark-up percentage and activity price Automail class as constants. I would add them to the properties file but can't according to the spec, so this was the next best option to me.
- Added a function to the MailItem to estimate the amount of activity units which will be required to deliver it.
- Each robot stores a reference to the Automail class so that it can access and update the service fees for each floor.
- Moved the Wifi Modem to the Robot class to increase cohesion (since robots perform the lookups)
- Implemented an overloaded toString method for the Mail Items so that we can print out the extra statistics by passing in a true parameter.
- Added the charge, cost, fee, and activity tracking capability to the robots and mail items.
- Automail uses one of the robots to set the service fees for each floor when it is initialised.
- The robots make one attempt to update the service fee upon delivery. They add this activity cost to the mail item they are delivering.
- When the robots move, they increase the activity units required for the delivery of both their items.

2 Questions

- Does having the robots communicate with the Automail class 'violate physical limitations'?

3 Choices

Feel free to make any choices of your own. If you have better ideas than what I've got here go for it.

- Choose to make the Charge for a delivery not be affected by whether the robot is delivering one or more items. If delivering two items the robot will charge each customer as if it had made a direct trip to them and back to the mail room, charging activity units for both directions.
- When initialised, the system should calculate service fees for every floor and store them (cost that cannot be passed on to the tenants). It should retry until all are successful so that we certainly have a service fee for each floor. Then for each delivery we make one attempt to update the service fee, can use the old value if it fails, or update it with a new value.
- May want to couple the robot with Automail and store the service fees for each floor in the Automail class? Otherwise maybe need to come up with an alternative solution to each robot storing all of the service fees by itself.