Snapshot Week <7> of Group <Path5>

Snapshot 3.1

Project: ATSYS_Shortest Path Algorithm for Material Transportation

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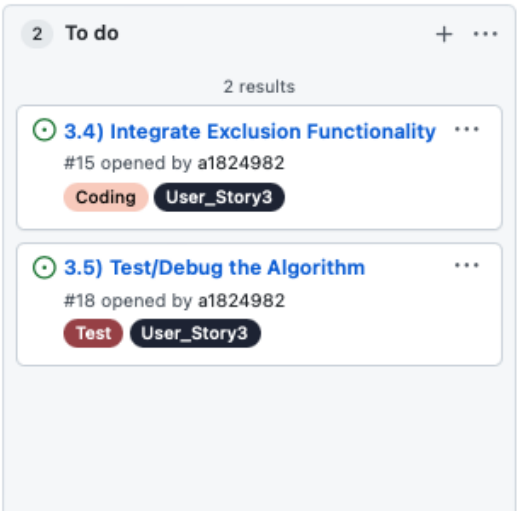
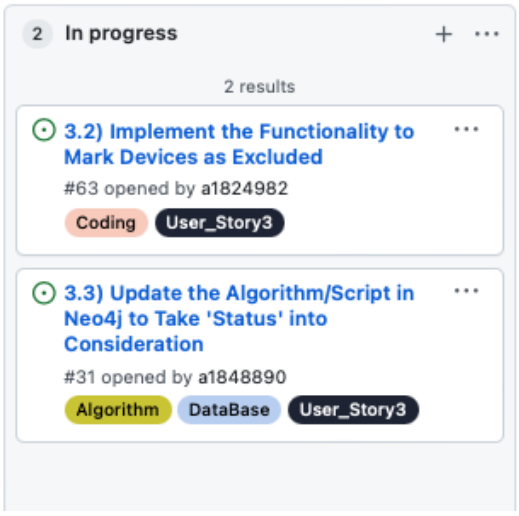
Product Backlog and Task Board

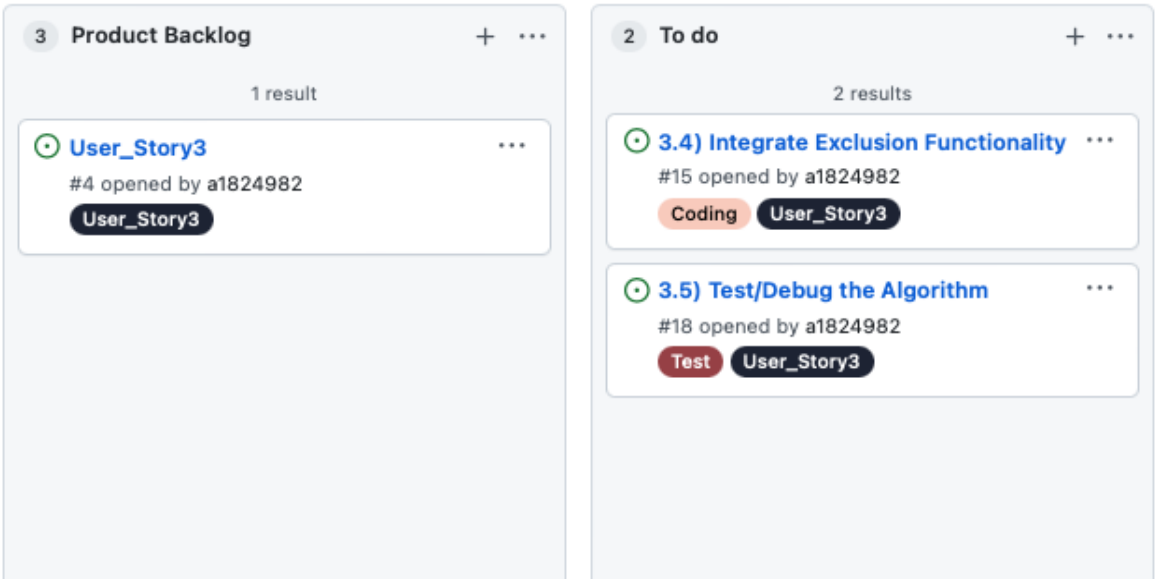
Product Backlog		
User Story 1	**User Story 2**	**User Story 3**
As a user, I want to store devices in the system so that I can add/remove/update them.	As a user, I want to get the shortest path between 2 given devices so that material transportation will be efficient.	As a user I want to mark devices to exclude, so that shortest paths can be identified avoiding them.

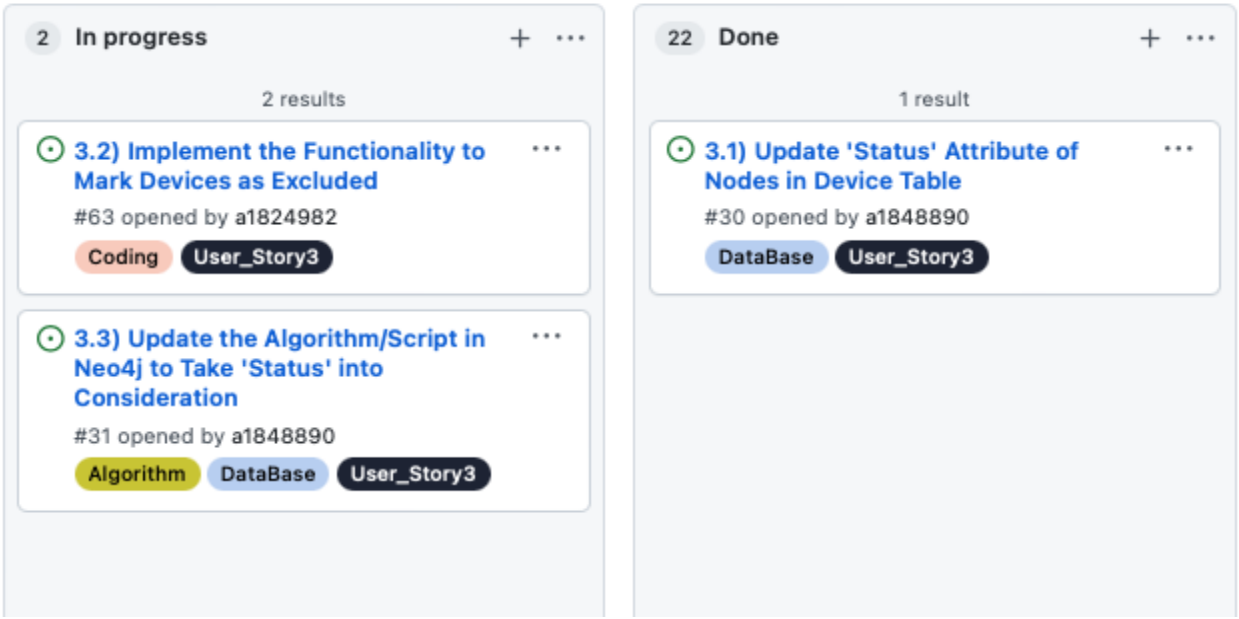
Task Board for Sprint 3 Snapshot 3.1 (User Story3)	
To Do	In Progress
	

Done


Sprint Backlog and User Stories

Sprint Backlog





In the third sprint, we have moved on to the third user story: ***"As a user I want to mark devices to exclude, so that shortest paths can be identified avoiding them."***

In this user story, users want to be able to exclude specific devices when calculating the shortest path between two given devices. Realistically, this functionality is important to implement because devices in the factory can be broken and including them in the calculation is not practical.

In order to achieve this, the database schema needs to be updated. To be specific, an additional attribute ‘Status’ will be added to our Device table to keep track of the condition of each device/node. Next, a logic condition will be added to our algorithm to avoid including unwanted devices into calculation.

Definition of Done

- A coding task is considered to be completed when the code has been written in accordance with the coding standards outlined in the initial report, tested (both unit and integration) refactored as needed, successfully passed peer review and obtained approval from all members of the team.
- A non-coding task task is considered to be completed when it has been brainstormed, discussed, documented, reviewed and agreed upon by the team in a meeting to ensure everyone is aligned and informed about the task. Additionally, any specific problems that arose during the Sprint should be reported to the team in detail and converted to an issue on the GitHub task board.

Summary of Changes

During this week’s snapshot, several important changes and updates have been made. These changes mainly focus on adding a new functionality of marking devices as excluded when executing the shortest path algorithm described in user story 3. Highlights include:

1. **New ‘Status’ Attribute for Nodes**: We introduced a new attribute called ‘status" for nodes, which has three values: ‘Active’, ‘In Use’ and ‘Fault’.
2. **New Logic Condition In Shortest Path Algorithm**: Now, when calculating for the shortest paths between two given devices, if the path contains ‘Fault’

or ‘In Use’ devices, it will be considered as invalid and will not be shown as a result candidate.

3. **New Devices Exclusion Functionality**: We have developed a script containing commands that can enable users to mark specific devices as excluded when calculating for the shortest path.
4. **Updated** everything on Github Taskboard.
5. **Improved** Visibility on Screenshots taken.

Overall, these are the main changes our group made between the previous snapshot.