Snapshot Week <10> of Group <Path5>

Snapshot 4.2

Project: ATSYS_Shortest Path Algorithm for Material Transportation

Members:

Shize Liu_a1844323
Yuze Li_a1848890
Ruoyu Xiong_a1847649
Yuchen Peng_a1824982
Yuejun Zhao_a1829813
Shijie Zhang_a1809881

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.

User Story 4	User Story 5
As a user, I want to get 5 shortest paths given a single source and multiple destinations, so that material distribution will be efficient.	As a user, I want the execution time of each operation to be optimised as possible and visualise the output (the 5 shortest paths) as a table or as a console output ordered by the path cost, so that user experience aspect will be improved.

Task Board	
Tasks For User Story 4	Tasks For User Story 5

4.1) Implement Add Device/Edge Function and Test it
#73 opened by a1824982
Algorithm Test User_Story4

4.2) Design User Interface / Interaction Process
#74 opened by a1824982
Document User_Story4

4.3) Implement the User Interface
#75 opened by a1824982
Coding User_Story4

4.4) Modify the Calculate Cost Algorithm
#77 opened by a1824982
Algorithm User_Story4

4.5) Integrate the Interface and Functionality
#76 opened by a1824982
Coding User_Story4

4.5) Testing the Entire Program
#78 opened by a1824982
Test User_Story4

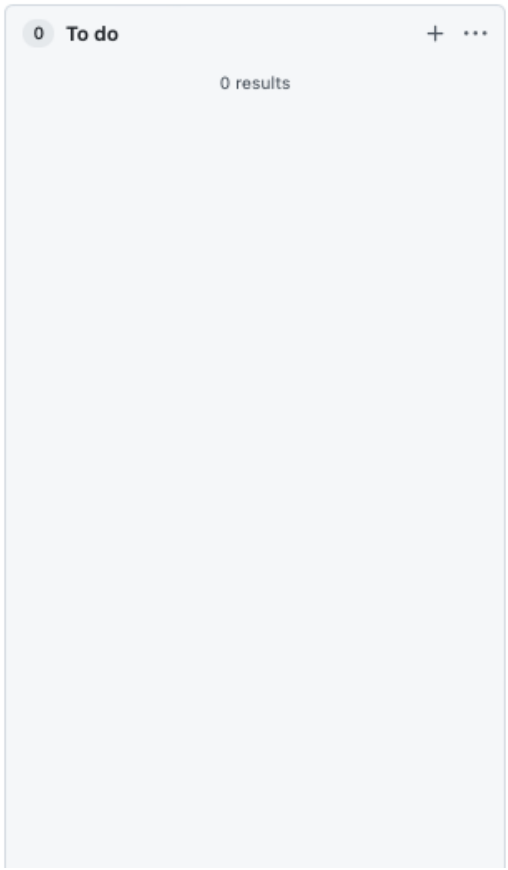
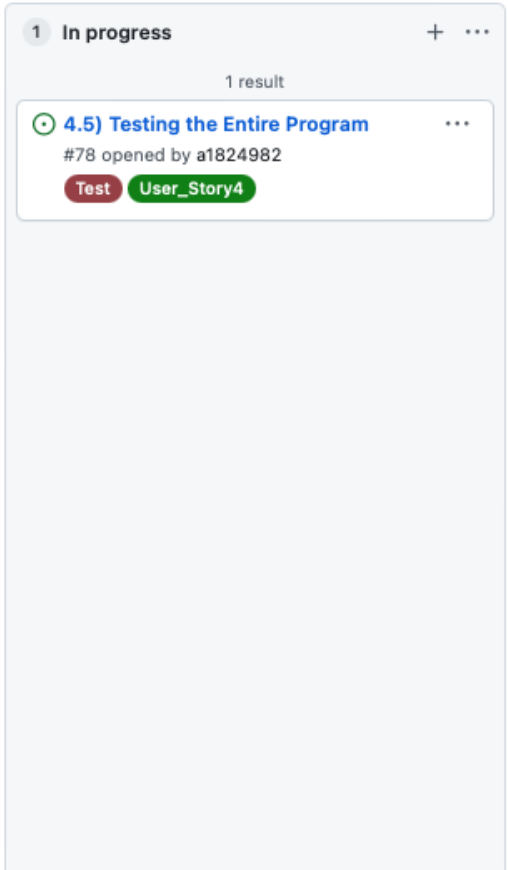
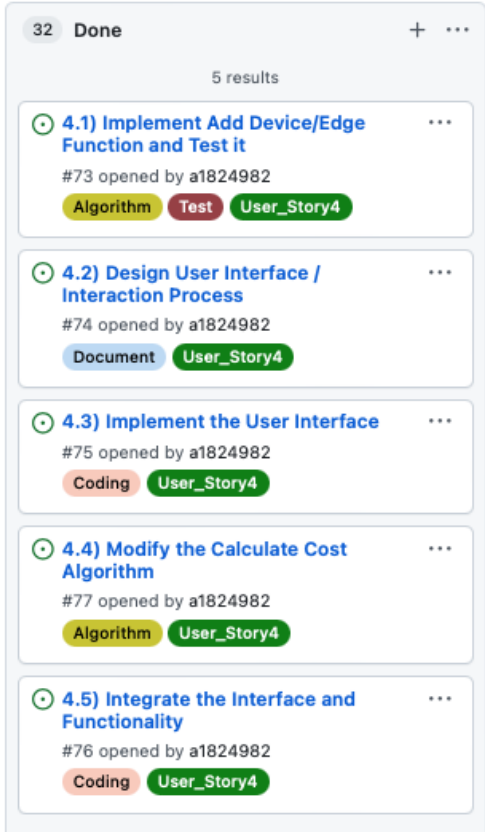
5.1) Add the 'Timer Functionality'
#79 opened by a1824982
Coding User_Story5

5.2) Test if '1-to-1 scenarios' Reach Acceptance Criteria
#80 opened by a1824982
Test User_Story5

5.3) Test if '1-to-N scenarios' Reach Acceptance Criteria
#81 opened by a1824982
Test User_Story5

5.4) Optimise the Program if Needed
#82 opened by a1824982
Refactor User_Story5

Sprint Backlog and User Stories

Sprint Backlog		
ToDo	In Progress	Done
		

In the fourth sprint, we started working on a new user story: **"As a user, I want to get 5 shortest paths given a single source and multiple destinations, so that material distribution will be efficient"**. In this user story, users not only want to find out the distance from one starting point to a single destination but also the cost from one starting point to multiple destinations. This will increase the efficiency of material transportation. Additionally, users have provided the expected output. We need to modify our current algorithm to calculate any overlap in the paths in '1 to N' scenarios and add a user-friendly interface for users to perform desired operations and display the requested results.

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 changes, updates have been made. These changes mainly focus on: 1) implementing the user interfaces 2) integrating the interface with implemented functionality Highlights include:

1. **Implemented** several versions of the user interface.
2. **Updated** the algorithm to implement 1-to-N scenarios.
3. **Successfully integrated** the user interface with implemented functionality.
4. **Updated** everything on Github Taskboard.

Overall, these are the main updates made between the previous snapshot. Next week, we will finish the testing and move to user story 5.