

Snapshot Week 5 of Group COMPLEX 8

Defence Science and Technology Group (DSTG) and Swordfish Computing Project Proposal: Distributed Decision-Making



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of ADELAIDE

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Product Backlog and Task Board

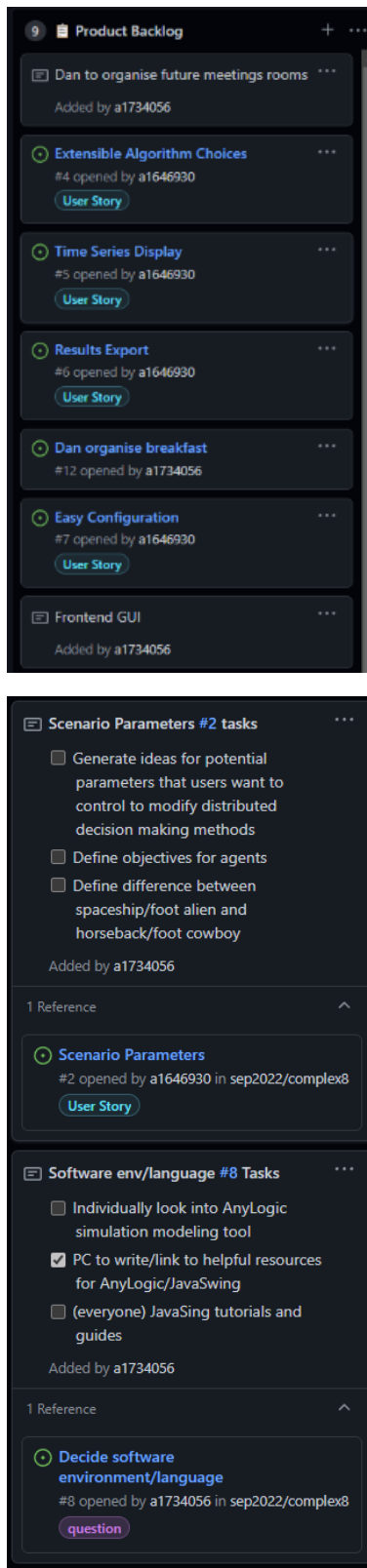


Figure 1: Product Backlog Screenshot

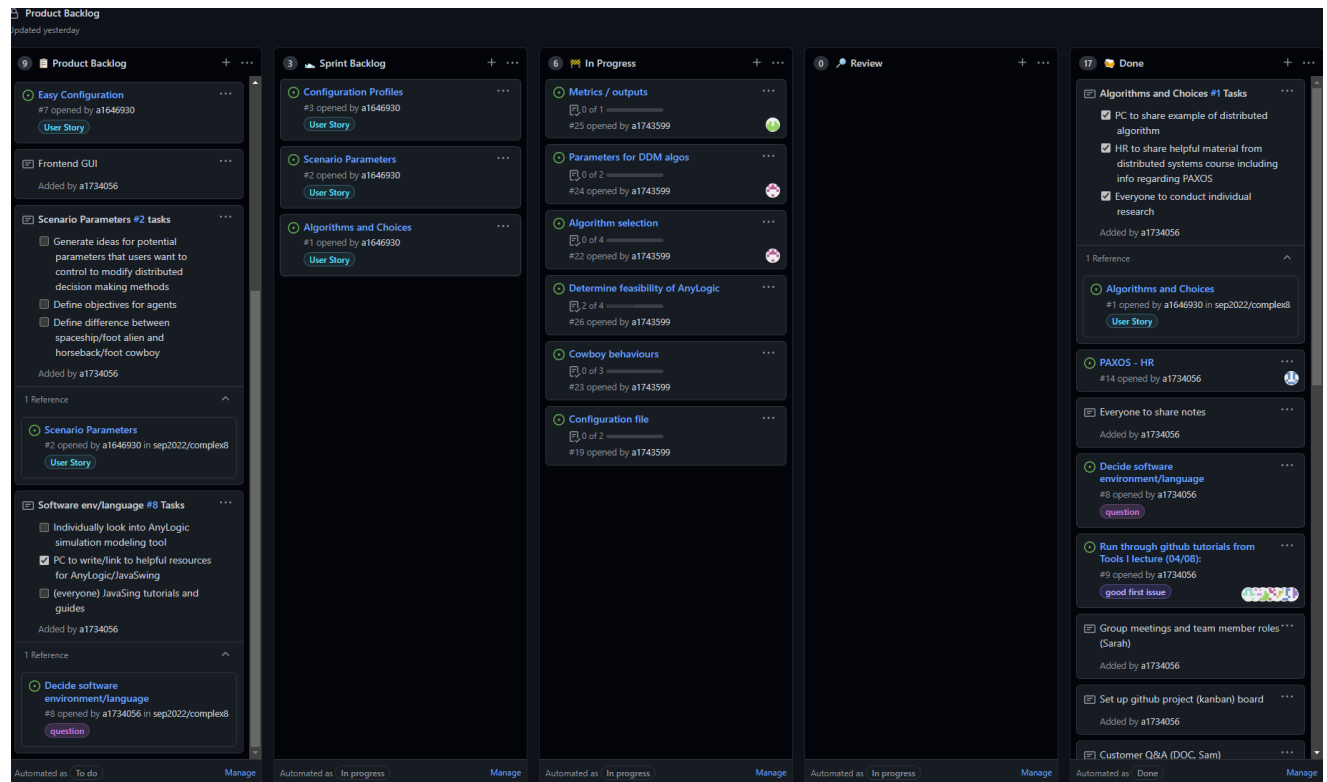


Figure 2: Task Board Screenshot

Sprint Backlog and User Stories:

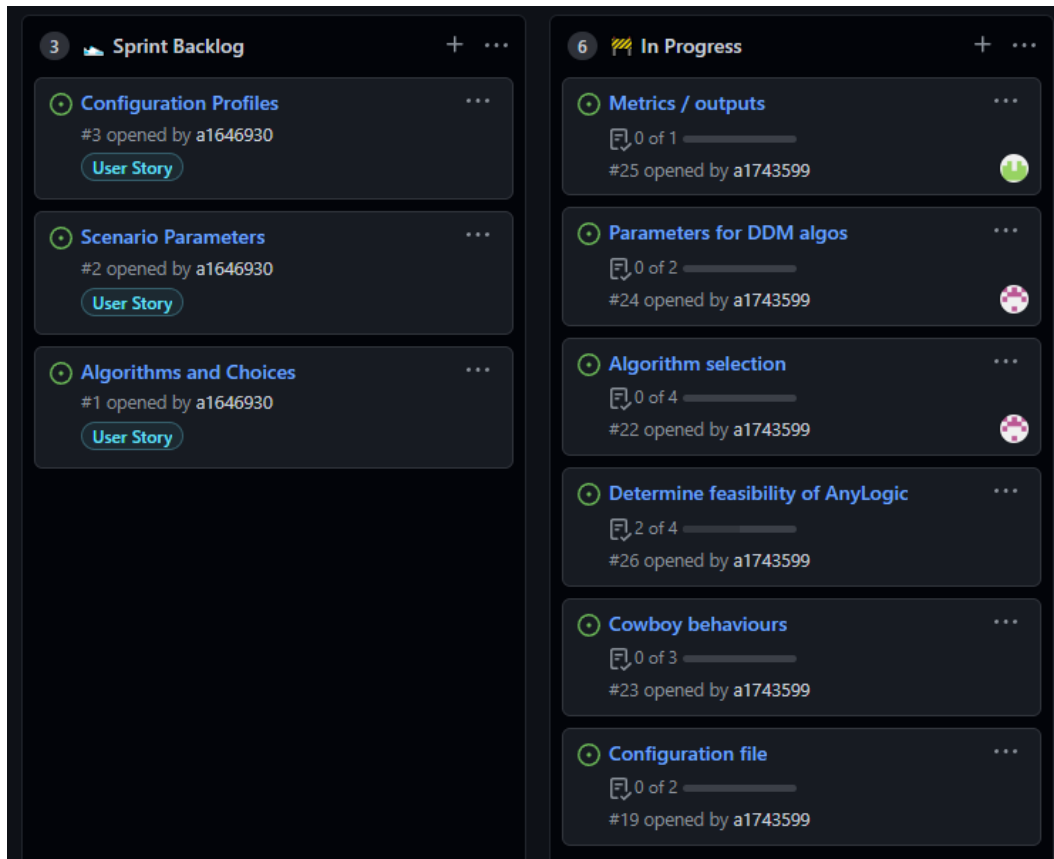


Figure 3: Sprint 2 backlog and in-progress items

The selected user stories for the current sprint are Algorithms and Choices (Issue #1), Scenario Parameters (Issue #2) and Configuration Profiles (Issue #3). Toward the Algorithms and Choices user story, the 'Algorithm selection' task was created and assigned to Pat and Hayley – they will investigate DDM algorithms and how they work. They will then collaborate with Sam and Sarah, who were assigned to the 'Parameters for DDM algos' task, which is to define the input parameters to the simulation and its DDM algorithms. Toward Configuration Profiles, the 'Configuration file' task was created and assigned to Daniel; he will decide on a configuration file format (.json, .yaml, .ini), he will then work with Sam and Sarah on how the input parameters appear in this file. The 'Cowboy behaviours' task contributes toward the Scenario Parameters user story, this task is to formally define the decisions that the cowboys will be making and the options they have to defend against aliens. 'Metrics / outputs' is a task to formally define what data will be output by the model to compare the DDM algorithms with. Finally, 'Determine feasibility of AnyLogic' is a task to investigate the AnyLogic software we decided to begin the project with. It must be determined whether this is a feasible platform for collaborative development.

Definition of Done:

- Code written and commented
- Documentation written and updated
- Code peer-reviewed
- Documentation peer-reviewed
- Code architecture conforms to specified design pattern.
- Tests written and passing
- Non-functional requirements met (UX, performance, availability)
- Acceptance criteria fulfilled

Summary of Changes:

Since the last team snapshot, Java Swing was experimented with, and some GUIs were mocked up. Research into the architecture and use of AnyLogic was done and some members completed AnyLogic tutorials. A simple scenario was defined with a ring network for communication and simple logic for the attacker-defender game. The geometry of the environment was defined as 2D with the objective in the centre of a rectangular playing field, encircled by cowboys. Enemy aliens will enter randomly from the edge of the playing field. Team members are also now providing a summary of work completed, to be read before meeting so that less time is spent discussing past completed work.