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



| a1734056 | Hayden Lee |
|----------|------------|
| a1734069 | Vinh Nguyen |
| a1743599 | Nathan Van der Hoek |
| a1744852 | Harry Bagley |
| a1746088 | Daniel O'Connor |
| a1746146 | Patrick Capaldo |
| a1748751 | Sarah Damin |
| a1749935 | Sam Davies |
| a1773841 | Hayley Richardson |

Product Backlog and Task Board

**7** 📋 **Product Backlog**                     +  ⋯

📝 Dan to organise future meetings rooms    ⋯
Added by a1734056

⊙ **Extensible Algorithm Choices**          ⋯
#4 opened by a1646930
( User Story )

⊙ **Time Series Display**                    ⋯
#5 opened by a1646930
( User Story )

⊙ **Results Export**                         ⋯
#6 opened by a1646930
( User Story )

⊙ **Easy Configuration**                     ⋯
#7 opened by a1646930
( User Story )

📝 **Scenario Parameters #2 tasks**           ⋯
☐ Generate ideas for potential
   parameters that users want to
   control to modify distributed
   decision making methods
☐ Define objectives for agents
☐ Define difference between
   spaceship/foot alien and
   horseback/foot cowboy
Added by a1734056

1 Reference                                  ︿

⊙ **Scenario Parameters**
#2 opened by a1646930 in sep2022/complex8
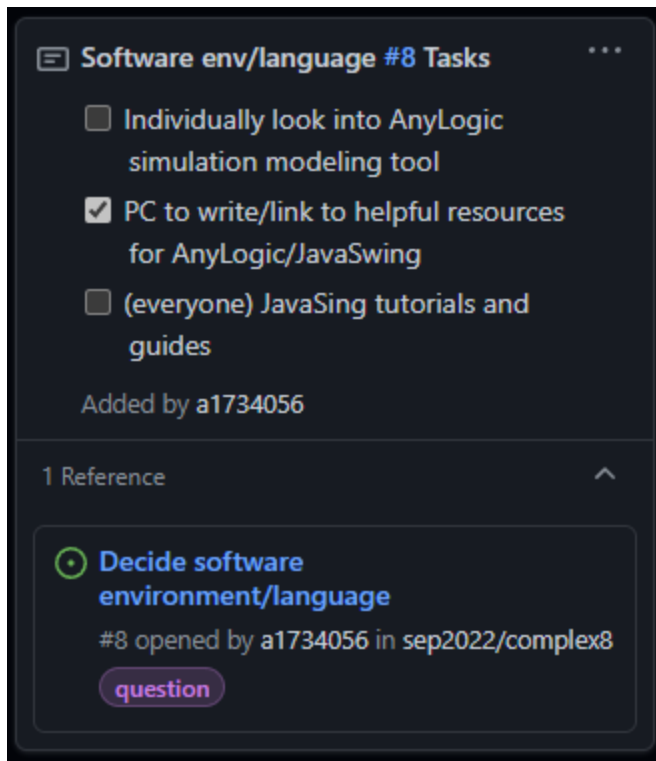( User Story )
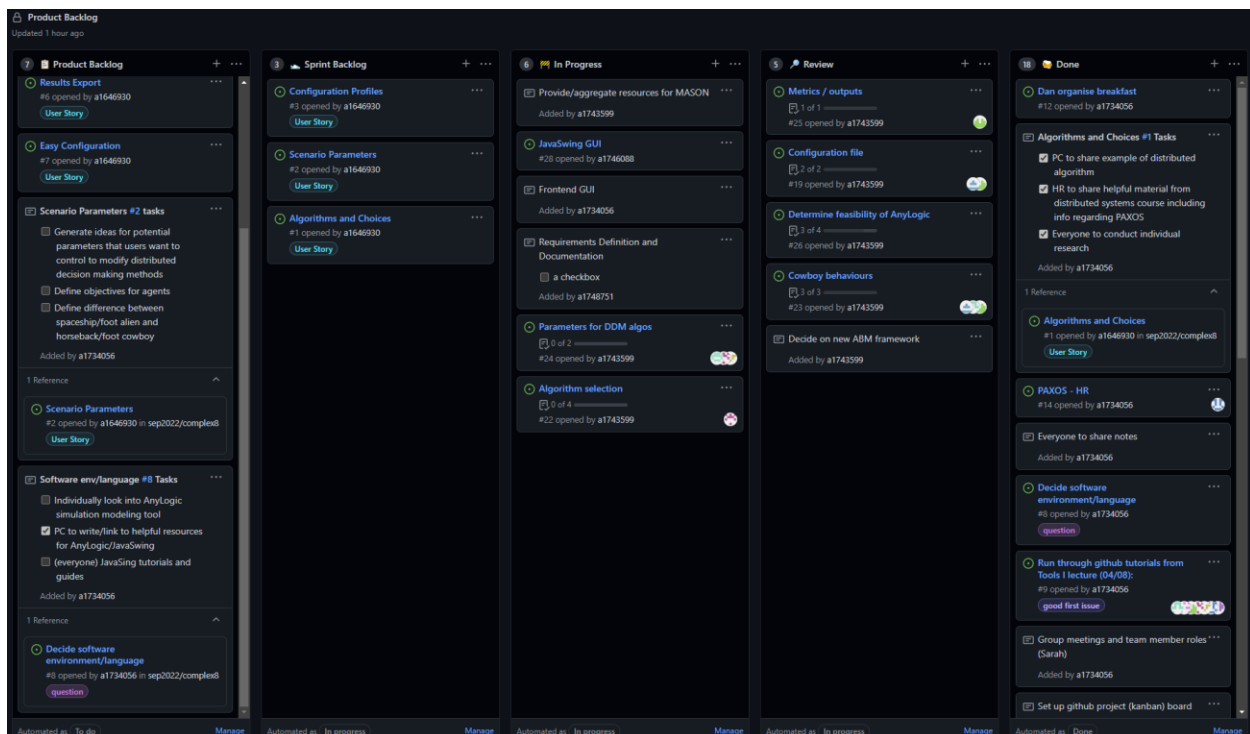
Figure 1: Product Backlog Screenshot



Figure 2: Task Board Screenshot

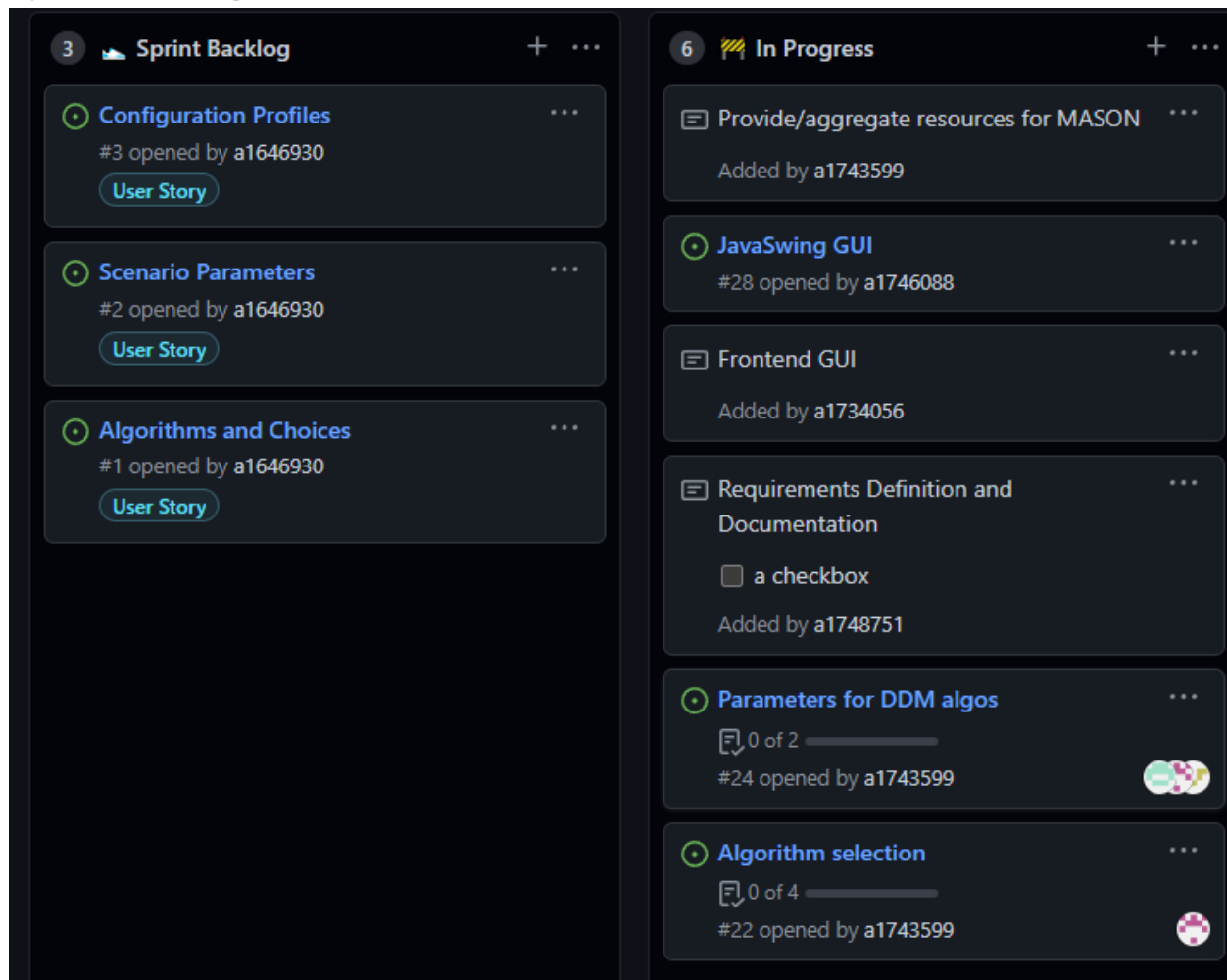# Sprint Backlog and User Stories:



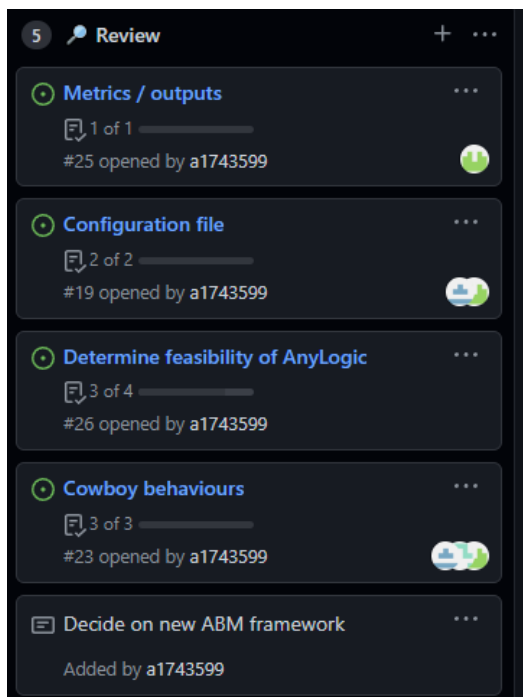*Figure 3: Sprint 2 backlog and in-progress items*

Mid-sprint, once Nathan had decided the team should no longer pursue AnyLogic, he created further tasks to investigate alternative frameworks. Once he had decided on the MASON framework, he made a task for collecting learning resources on MASON. No further changes were made to the sprint backlog since the previous snapshot.

# 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, several items on the sprint backlog were completed:



These will be moved to 'Done' during the sprint review meeting.

A json library is now being used in the JavaSwing GUI to generate basic configuration files. A requirements document is now in-progress. Cowboy and alien behaviours have been specified in a word document. Hayley has produced an overview of the PAXOS algorithm. It has been decided to use the MASON java agent-based modelling library to develop the simulation backend. A summary of possible metrics and outputs has been produced.