Sprint 1 plan

Product name: Automated Cell Counting
Team name: Cell Counting Project
Release name: ACC alpha v1.0
Release date: 06/04/2021
Revision number: 3
Revision date: 04/07/2021

This sprint we would like to really nail down our research and decide how we are going to tackle this problem, create a simple UI, and work on/make sure we have good data to train our model.

Task Listing:
- (8) As an employee, I need to research about this project and the different ways to tackle this problem, so that I can be helpful. (highest priority)
    - Research and take notes on U-nets following the template (5 hours)
        - Research and take notes on R-CNNs following the template
    - Decide on an ML model based on our research (1.5 hours)
    - Learn how to use our decided model (5 hours)
    - Talk to Daniel to better understand how he typically counts the cells and what info is relevant (eg. what's the purpose of the grid lines? Why don't they use some of the other options available?) (1.5 hours)
    - Learn how to do data augmentation (5 hours)
    - Total Hours:
- (13) As a tester I need to be able to know the right values for the cell counts so that I can see whether the count is accurate or not. (might change later)
    - Compile all of Daniel's images and the corresponding cell counts into one place. (Drive, github, or both) (3 hours)
    - Look up online annotated cell images (4 hours)
    - Write up a pros and cons table of different ways we can store and access our labeled data (eg. SQL database) (5 hours)
    - Decide on a storage system (1.5 hours)
        - Researching how to use this storage system (5 hours)
    - Actually store the data in a code-accessible form (3 hours)
- (9) As a lab researcher, I want to have a nice easy to use UI so that I don't get lost or can learn it easily.
    - Research the existing technology setup of labs and whether the counting is done through microscope software or the images are saved to an external computer beforehand (4 hours)
    - Compile pros/cons of all of our UI/platform options (4 hours)
    - Decide on a frontend framework (1.5 hours)
    - Research how to use the frontend framework (5 hours)
    - Implementation of the simple UI (4 hours)

Team Roles:

- Jorge Tapias Gomez: Product Owner
- Sriram Ramesh : Scrum Master
- Aaron Swoiskin : Developer
- Dhruv Tummala : Developer

Initial Task Assignment:

- Jorge Tapias Gomez:
    - As a tester I need to be able to know the right values for the cell counts so that I can see whether the count is accurate or not. (might change later)
        - Compile all of Daniel's images and the corresponding cell counts into one place. (Drive, github, or both
- Sriram Ramesh:
    - As an employee, I need to research about this project and the different ways to tackle this problem, so that I can be helpful. (highest priority)
        - Research and take notes on U-nets following the template
- Aaron Swoiskin:
    - As an employee, I need to research about this project and the different ways to tackle this problem, so that I can be helpful. (highest priority)
        - Research and take notes on U-nets following the template
- Dhruv Tummala:
    - As a lab researcher, I want to have a nice easy to use UI so that I don't get lost or can learn it easily.
        - Research the existing technology setup of labs and whether the counting is done through microscope software or the images are saved to an external computer

Initial Burnup chart:
The chart will be kept track of at this link. Below is a screenshot of the chart after our first scrum meeting.

Burnup chart

Legend: Worked hours — Total hours — Projected Progress
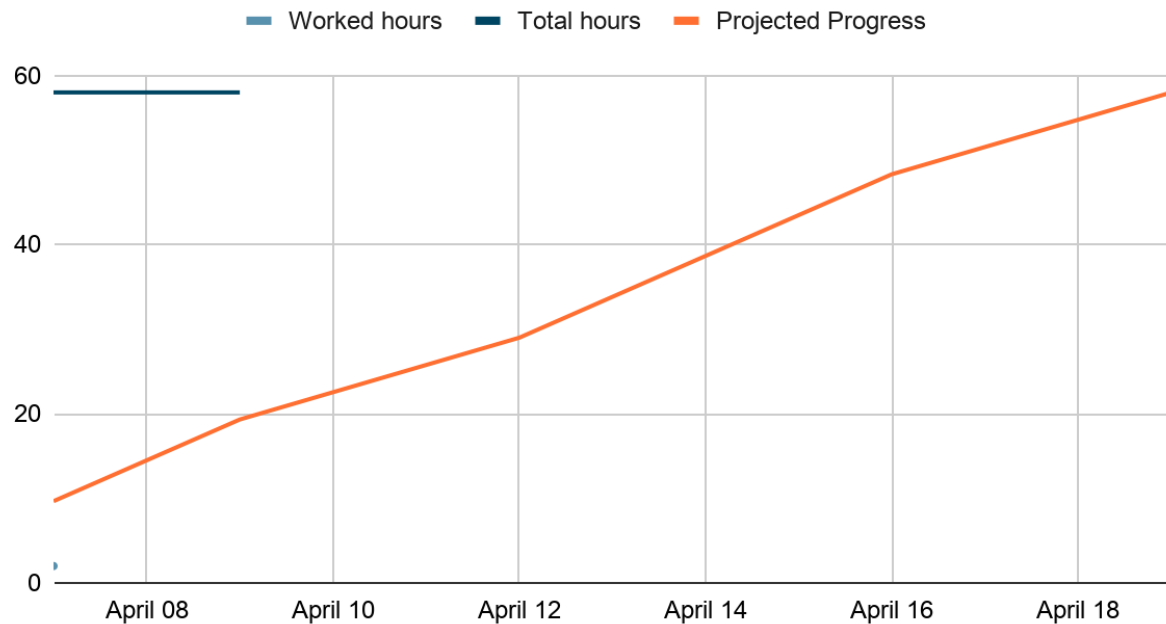
Initial Scrum Board:

The scrum board is made on a trello board at this link. Join to be able to see the board at this link (only click once). Below is a screenshot of the trello board when it was first made.
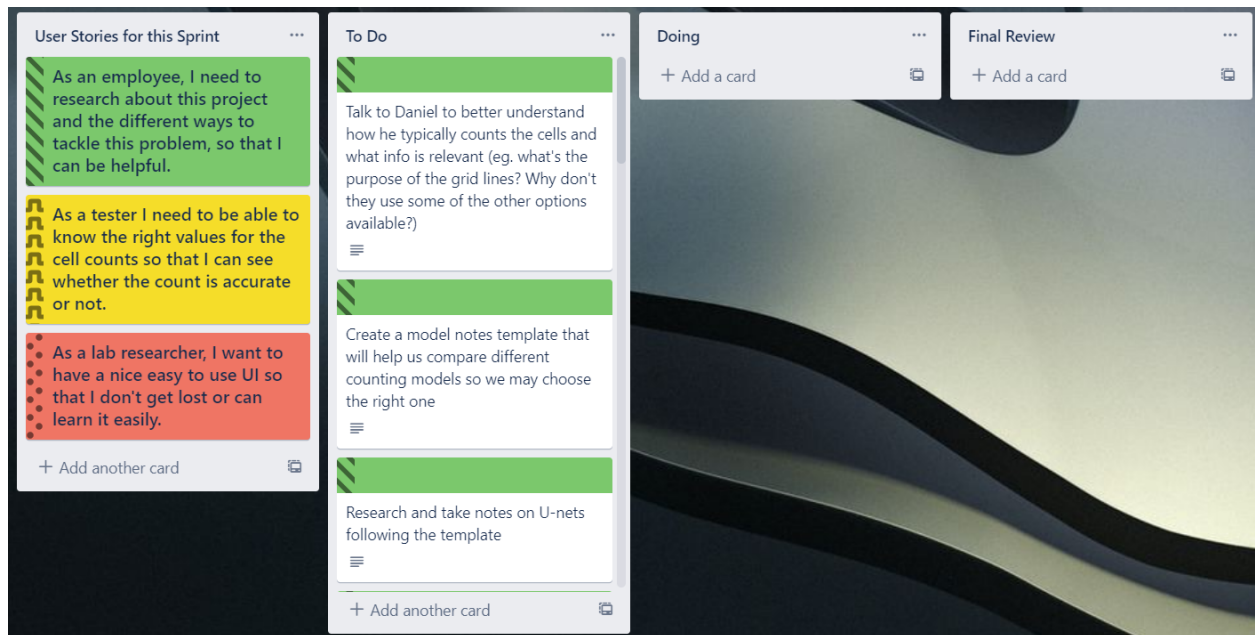
The tasks are color coded with the user stories they correspond to. The user stories are in full color, while the tasks have only a colored header at the top. The time estimates are in the task descriptions. Whether some tasks need to be done hinge on the results of other tasks.

Scrum Times: