

# rallyAI

CSE 115A, Fall 2019

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## Sprint 4 Plan

rallyAI, 11/18/2019 - Release 1 - Revision 1 - Revision Date: 11/18/2019

### Goal:

Our team's goal is to begin to integrate the separate components into one usable product. Our API will use the scraped data, the model will be exported to the API, and it will begin to give users' predictions.

### Team Roles:

**Kyle O'Brien:** Team Lead, Developer

**Nixon Duong:** Data Scientist

**Mathew Wirtz:** Data Scientist

**Sean O'Hearn:** Developer

**Joseph Nguyen:** Developer, Scrum Master

### Task listing, organized by user story:

**User Story 1:** As a user, I want to fetch predictive stock data

#### Tasks:

1. Fetch data from Postgre database to train model **(5 hours)**
2. Import model into NodeJS using KerasJS **(5 hours)**
3. Create an endpoint for users to fetch predictive stock data **(5 hours)**
4. Write a unit test file **(1 hours)**

**Total: 16 hours**

**User Story 2:** As a developer, I want to implement continuous integration to detect errors before the project is deployed.

#### Tasks:

1. Write a unit test file in JEST **(1 hours)**
2. Create an Azure pipeline YAML configuration. **(1 hours)**

**Total: 2 hours**

**User Story 3:** As a Developer, I want to fetch data from the Postgre database so I can sample data from different points in time.

#### Tasks:

1. Query all stock data from Postgre database using a date range. **(2 hours)**
2. Query data from Postgre database using Stock symbol and date. **(2 hours)**

3. Write unit test file **(2 hours)**
4. ETL pipeline, account for values ending in K for the volume\_in\_millions data. **(2 hours)**

**Total: 8 hours**

**User Story 4:** As a Developer, I want to implement a unit testing framework for the webscraper, so that they can be run in the CI pipeline.

**Tasks:**

1. Boilerplate unit test framework using pytest **(1 hour)**
2. Write unit tests for url scraper **(1 hour)**
3. Write unit tests for data scraper **(1 hour)**
4. Integrate unit testing framework with CI pipeline **(1 hour)**

### Initial Task Assignment:

**Kyle O'Brien:** user story 3; task 3,4

**Nixon Duong:** user story 1; tasks 1, 2

**Mathew Wirtz:** user story 1; tasks 3, 4

**Sean O'Hearn:**

**Joseph Nguyen:** user story 3; task 1,2

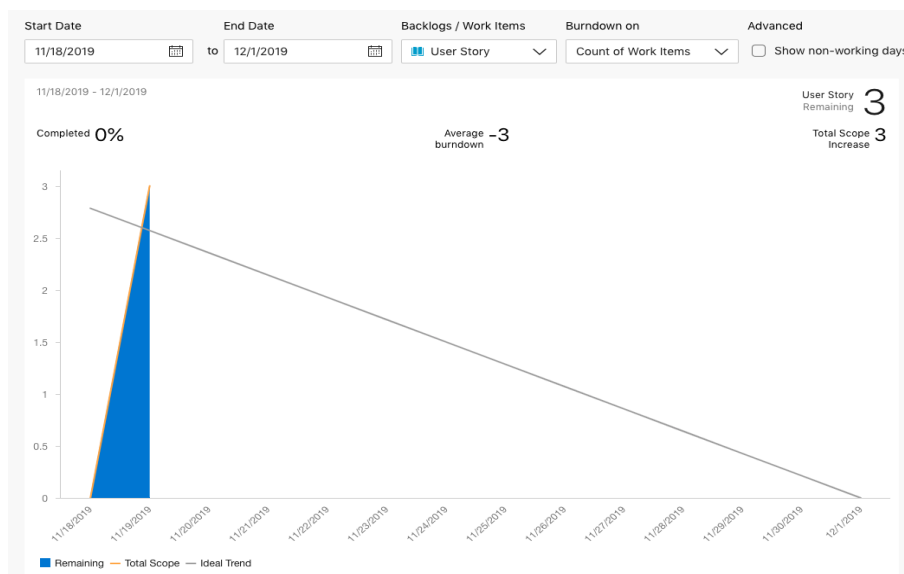
### Scrum Times:

**Monday:** 2:30-3:00pm (with our TA)

**Wednesday:** 9:30-10:00am

**Friday:** 9:30-10:00am

### Initial Burnup Chart:



## Initial SCRUM Board

Link:

[https://dev.azure.com/kyledevinobrien/rallyAI/\\_sprints/taskboard/rallyAI%20Team/rallyAI/Sprint%204](https://dev.azure.com/kyledevinobrien/rallyAI/_sprints/taskboard/rallyAI%20Team/rallyAI/Sprint%204)