

rallyAI

CSE 115A, Fall 2019

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Release Plan

rallyAI, 10/8/2019 - Release 1 - Revision 1 - Revision Date: 10/7/2019

High-Level Goals:

- Fetch predictive stock data from our API
- Query specific stock data with GraphQL

User stories for release:

Sprint 1 (Total Points: 20):

(5 points) User Story 1: As a developer, I want to build my data set with scrapers so I can collect data.

(5 points) User Story 2: As a developer, I want to build a data pipeline so I can load it into a database/CSV file.

(5 points) User Story 3: As a developer, I want to research GraphQL's schema so I can begin to build the API.

(5 points) User Story 4: As a developer, I want to learn about recurrent neural networks so I can begin to work on the predictive model.

Sprint 2 (Total Points: 23):

(8 points) User Story 1: As a developer, I want to develop the machine learning model so I can use the data collected to predict stock prices.

(5 points) User Story 2: As a developer, I want to start providing basic functionality to our API so the user can interact with it.

(5 points) User Story 3: As a developer, I want to use caching so the APIs latency is optimized.

(5 points) User Story 4: As a developer, I want to use Kubernetes so our system will be more fault-tolerant.

Sprint 3 (Total Points: 15):

(5 points) User Story 1: As a developer, I want caching to be complete so the user can enjoy its advantages.

(5 points) User Story 2: As a developer, I want to complete the Kubernetes implementation so all of our processes are automated.

(5 points) User Story 3: As a developer, I want a complete ML predictive model that predicts stock prices so we can use them with our API.

Sprint 4 (Total Points: 19):

(5 points) User Story 1: As a developer, I want to implement a rate-limiting system so our servers don't get flooded with requests.

(3 points) User Story 2: As a developer, I want to add API keys so we can authenticate users.

(5 points) User Story 3: As a developer, I want to implement unit tests so our system is more robust.

(3 points) User Story 4: As a developer, I want to document our API so other developers can use it.

(3 points) User Story 5: As a developer, I want to create an interface so we can demo our API.

Product Backlogs:

- Additional metrics around average price, mean, etc.
- Create a dashboard.
- Build a continuous integration pipeline.

Project Presentation:

https://docs.google.com/presentation/d/1yYbY_UooS5ZQF-cjTwf937cCEArVlul9CiCe-V6PMUg/edit#slide=id.p