Project Part 2

2.1

Project Description:

The project is about creating a financial API and trading algorithms that are simple and easy to use. It will include all kinds of financial data for the SPY for quarters and days. It will be updated every day at 10PM PST. It can be called via a link or using drop down menus if you do not understand how to interact with API’s. The website will have a serverless s3 backend using AWS. The trading algorithm will have 3 options to choose from and be in an environment to easily back test, edit or share code. The trading algorithm must have the ability to be live traded using real money.

Project Management Style:

Agile Project Management methodology will be used to complete this project. Scrum tools will also be utilized to increase the efficiency of completing the project. The actual tools used will be through Confluence and Jira hosted on Atlas. This will give me an advantage as the paid software is generally much better than a lot of the free scrum tools. The only issue is I must keep making new accounts to get free trials.

Potential Users:

The potential users are people who want financial data without having to pay and want to interact with a simple system that does not require technical knowledge. The user could be individuals or finance companies.

2.2 Detailed project requirements

Graphical user interface, application

Description automatically generated

2.3 Detailed design description

Project Description: The project will revolve around creating a serverless API using AWS. The flow of the project is described below. To do this we first have to collect data from 15 different APIs hosted on one website, we then cleaned and merged this data into quarterly and daily data frames. Then created a time-based trigger to update the daily data. This data was then saved to a database on AWS. The website is hosted on S3 and API is hosted from an API Gateway. The API gateway calls the lambda function to get the data from the API. API gateway then returns the data to the user. The next side of the project is creating 3 different strategies and making algorithms to trade based on those financial strategies. We will be using the software quant connect to code out these algorithms and make them accessible to a larger market for free. They will have the ability to be back tested and have the parameters easily adjusted depending on level of skill

Diagram of Project: API, Dataflow for trading algorithm is build into system.

Diagram

Description automatically generated

2.4 Detailed development schedule

Iterations: Product issue was the lack of iterations, impossible to be completed that way

iteration 1: Pre website API

iteration 2: Post website API

iteration 3: Single solution trading algorithm (breakout method)

iteration 4: Two solution trading algorithm (breakout method/ Mean reversion)

iteration 5: Three solution trading algorithm (breakout method/ Mean reversion/Earning reaction)

User Story and Sprints: See image above in 2.2

* 6 story points

2.5 Project Status

Current Sprint: Current sprint is finished, on backlog items.

Backlog: Backlog items include pull from more API’s, create alarm and make the website look pretty, add more strategies

Burndown plan: Unnecessary due to project completion.