

PROJECT PLAN

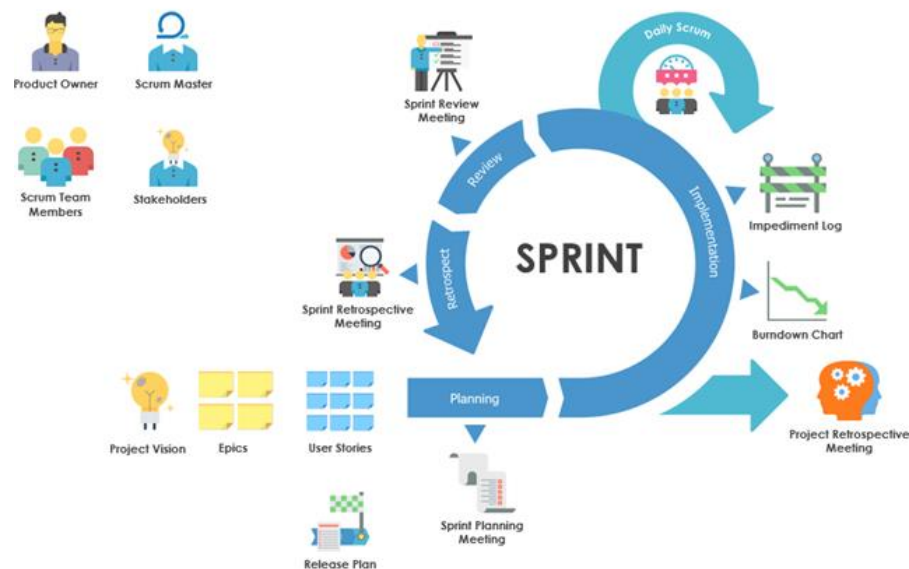
STOCK PRICE PREDICTOR

Team Details:

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1. Identify the lifecycle to be followed for the execution of your project and justify why you have chosen the model.

The life cycle followed for the execution of our project is the Agile Scrum. This methodology involves multiple iterations of certain steps and a daily scrum to update each other on the progress. These iterations are the sprints and are pre decided before starting the project. We follow a continuous deliverable format which verifies tasks for the day and if the sprint completion is up to date.



2. Identify the tools which you want to use throughout the life cycle like planning tool, design tool, version control, development tool, bug tracking and testing.

Planning tool: JIRA

Design Tools: PowerPoint, Canva

Version Control: git

Development Tool: VS Code, Python

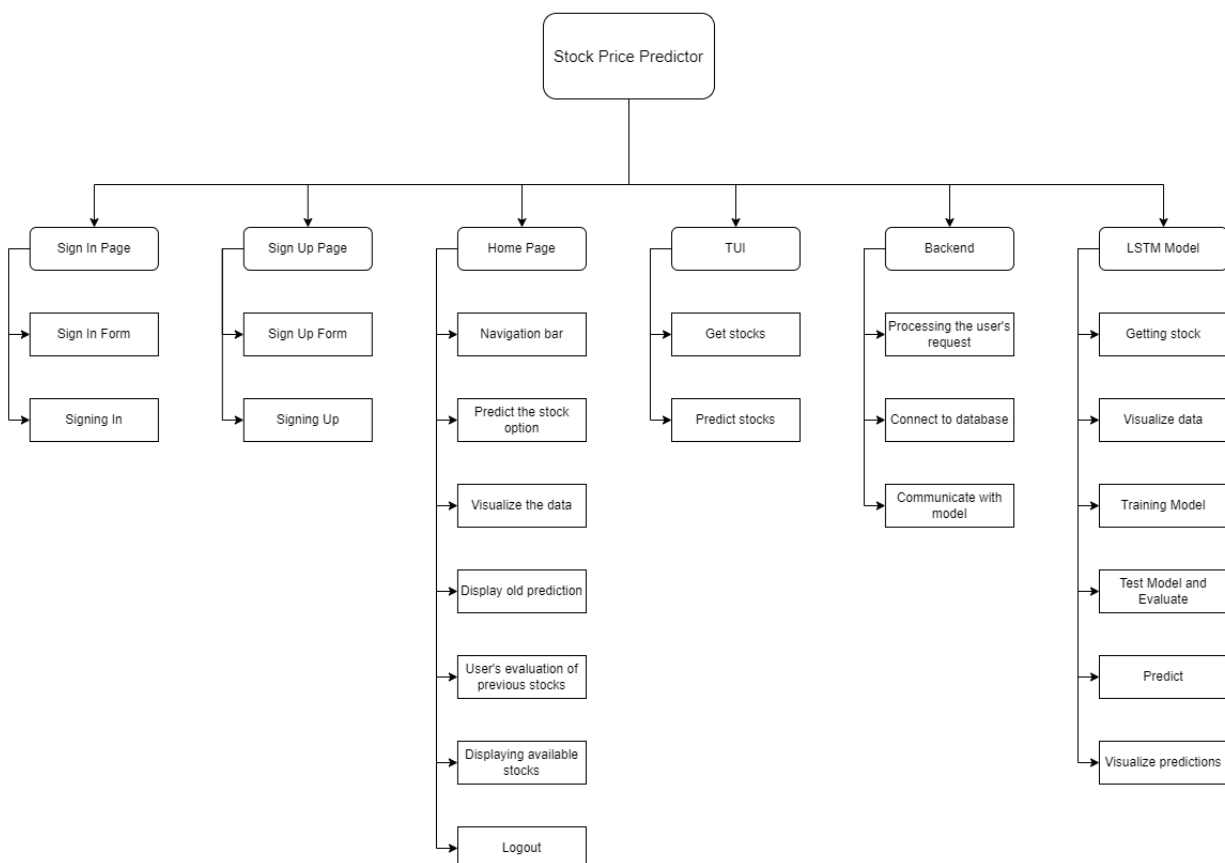
Bug Tracking: JIRA

Testing: Selenium

3. Determine all the deliverables and categorize them as reuse/build components and justify the same

- Login Page (Client, Admin): Reuse
There are many existing login page components that we can use and change to our requirements.
- Update the databases with companies' stock: Build
- Try to add as many companies' stock prices to the database: Build
A simple process of adding data to an existing database and connecting them
- Generate plots for historical stock prices: Build
Deliverable that takes care of generating historical data such as closing price, opening price, high and low and then based on that prints the stock prices.
- Generate future prices of the stock: Build
Generating the future prices of the stock using machine learning.

4. Create a WBS for the entire functionalities in detail



Rough estimate of effort required

Organic models are used when the problem statement is well understood and have been used in the past, and works well with small teams. The module selected for testing was the LSTM model. This model was selected because it is the core module and is a dependency for other modules.

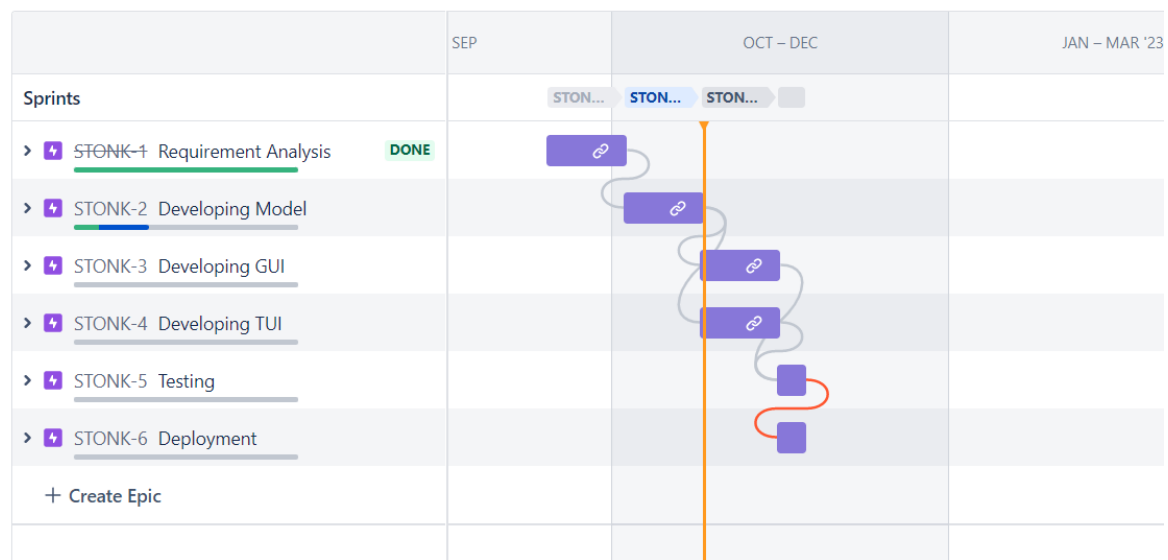
KLOC = 2

a = 2.4

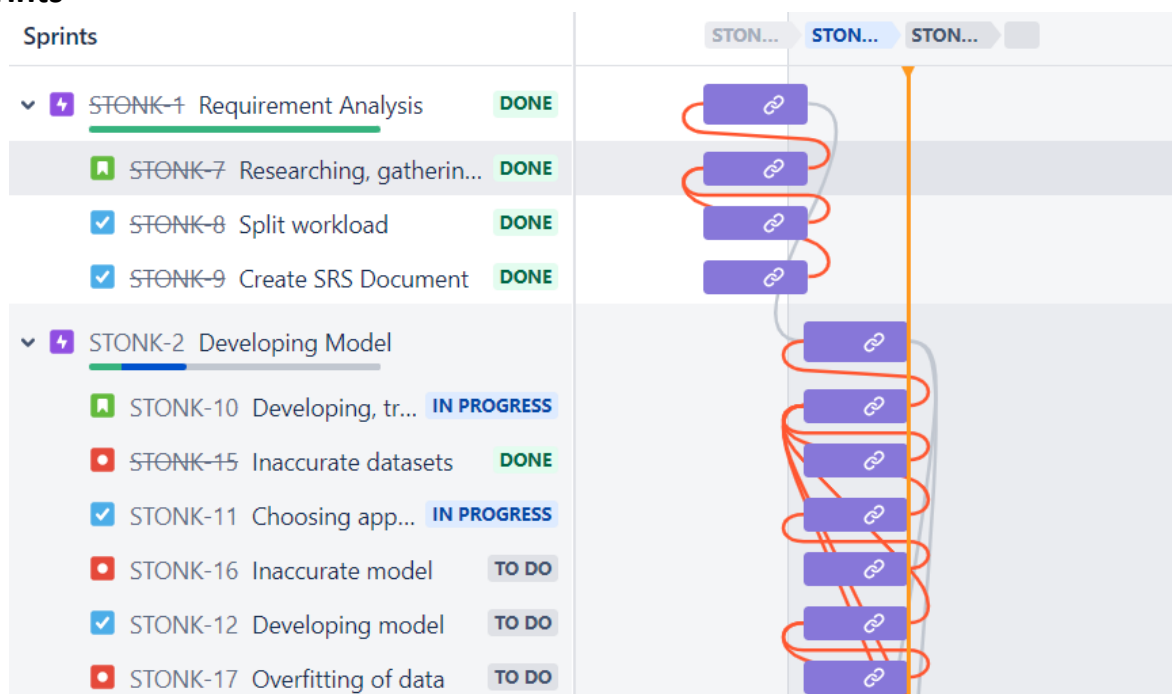
b = 1.05

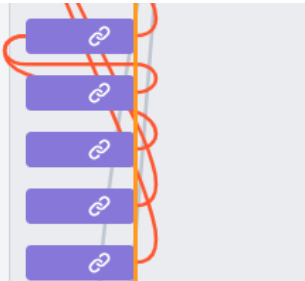
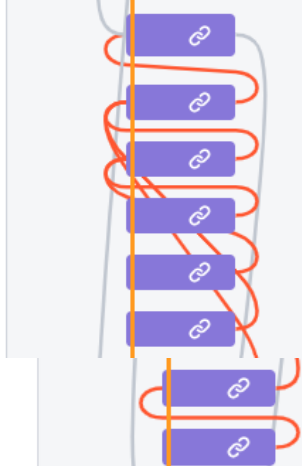
Effort = $a \cdot (\text{KLOC})^b = 4.96$

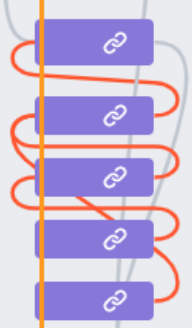

Gantt chart




Sprints



<ul style="list-style-type: none">✓ STONK-12 Developing model TO DO✗ STONK-17 Overfitting of data TO DO✗ STONK-18 Slow Implementation TO DO✓ STONK-13 Training the model TO DO✓ STONK-14 Testing the model TO DO		
<p>✗ ⚡ STONK-3 Developing GUI</p> <ul style="list-style-type: none">✗ STONK-19 Create Frontend Ap... TO DO✓ STONK-20 Create components TO DO✗ STONK-23 Browser compatibili... TO DO✗ STONK-25 Input form not work... TO DO✓ STONK-21 Connect to model A... TO DO✓ STONK-22 Create responsive UI TO DO✗ STONK-24 Improve UI TO DO		

<p>✗ ⚡ STONK-4 Developing TUI</p> <ul style="list-style-type: none">✗ STONK-26 Create terminal app... TO DO✓ STONK-27 Connect to backend... TO DO✗ STONK-29 Server connection is... TO DO✓ STONK-28 Optimize performan... TO DO		
<p>✗ ⚡ STONK-5 Testing</p> <ul style="list-style-type: none">✗ STONK-30 Testing and integrat... TO DO✓ STONK-31 Seamless integration TO DO		

<p>✗ ⚡ STONK-6 Deployment</p> <ul style="list-style-type: none">✗ STONK-32 Deploying and final ... TO DO✓ STONK-33 Deploy to a server TO DO✗ STONK-34 Did not deploy pro... TO DO		
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Product Backlog

▼ STONK Sprint 2 4 Oct – 25 Oct (9 issues)

000Complete sprint...

STONK-10	Developing, training and testing the model	DEVELOPING MODEL	IN PROGRESS	
STONK-15	Inaccurate datasets	DEVELOPING MODEL	DONE	
STONK-11	Choosing appropriate model	DEVELOPING MODEL	IN PROGRESS	
STONK-16	Inaccurate model	DEVELOPING MODEL	TO DO	
STONK-12	Developing model	DEVELOPING MODEL	TO DO	
STONK-17	Overfitting of data	DEVELOPING MODEL	TO DO	
STONK-18	Slow Implementation	DEVELOPING MODEL	TO DO	
STONK-13	Training the model	DEVELOPING MODEL	TO DO	
STONK-14	Testing the model	DEVELOPING MODEL	TO DO	

+ Create issue

▼ STONK Sprint 3 25 Oct – 15 Nov (11 issues)

000Start sprint...

STONK-19	Create Frontend Application	DEVELOPING GUI	TO DO	
STONK-20	Create components	DEVELOPING GUI	TO DO	
STONK-23	Browser compatibility issues	DEVELOPING GUI	TO DO	
STONK-25	Input form not working	DEVELOPING GUI	TO DO	
STONK-21	Connect to model API	DEVELOPING GUI	TO DO	
STONK-22	Create responsive UI	DEVELOPING GUI	TO DO	
STONK-24	Improve UI	DEVELOPING GUI	TO DO	
STONK-26	Create terminal application	DEVELOPING TUI	TO DO	
STONK-27	Connect to backend server	DEVELOPING TUI	TO DO	
STONK-29	Server connection issues	DEVELOPING TUI	TO DO	
STONK-28	Optimize performance	DEVELOPING TUI	TO DO	

+ Create issue

Quickstart

▼ STONK Sprint 4 15 Nov – 22 Nov (5 issues)

000Start sprint...

STONK-30	Testing and integrating	TESTING	TO DO	
STONK-31	Seamless integration	TESTING	TO DO	
STONK-32	Deploying and final checks	DEPLOYMENT	TO DO	
STONK-33	Deploy to a server	DEPLOYMENT	TO DO	
STONK-34	Did not deploy properly	DEPLOYMENT	TO DO	

+ Create issue