STOCK PREDICTOR

Project Report
SEM V

TANUJ DEY
MARUF MEMON
YASH GOR

Stock Predictor

This application predicts the stock analyzes and predicts stock prices using Deep Learning and provides useful trade recommendations (Buy/Sell signals) for the individual traders and asset management companies.

Index

TABLE OF CONTENT

Company Profile

About us

Streebo was founded in 2008, and we've been on an epic ride ever since. We've tried to stay true to our core belief – technology automation – and to deliver exceptional mobile and omni-channel experiences that engage, empower and excite, to our customers.

Organization Name	Streebo Inc
Contact Number	+91 79 6617 0880
Address	Siddhi Vinayak Towers, A-714, S.G. Highway, Makarba, Ahmedabad – 380051 Gujarat, India
Email:	info@streebo.com

STREEBO

Project Profile

TOOLS REQUIRED

1. Front-End
   - HTML5
   - CSS3
   - JavaScript
2. Back-End
   - Python
   - PHP
   - JSON
   - MYSQL

TITLE

Stock Prediction
Using Deep Learning

SYSTEM REQUIRED

Client side:

1. Any Browser
2. 2GB RAM or above

Existing System

Traditional approaches to stock market analysis and stock price prediction include fundamental analysis, which looks at the stocks past performances and the general creditability of the company itself and statistical analysis, which is solely concerned with number crunching and identifying patterns in stock price variation, but it is not always accurate and results into high losses. [1] Currently they don't have any such application that shows news according to finance/stock market.

Proposed System

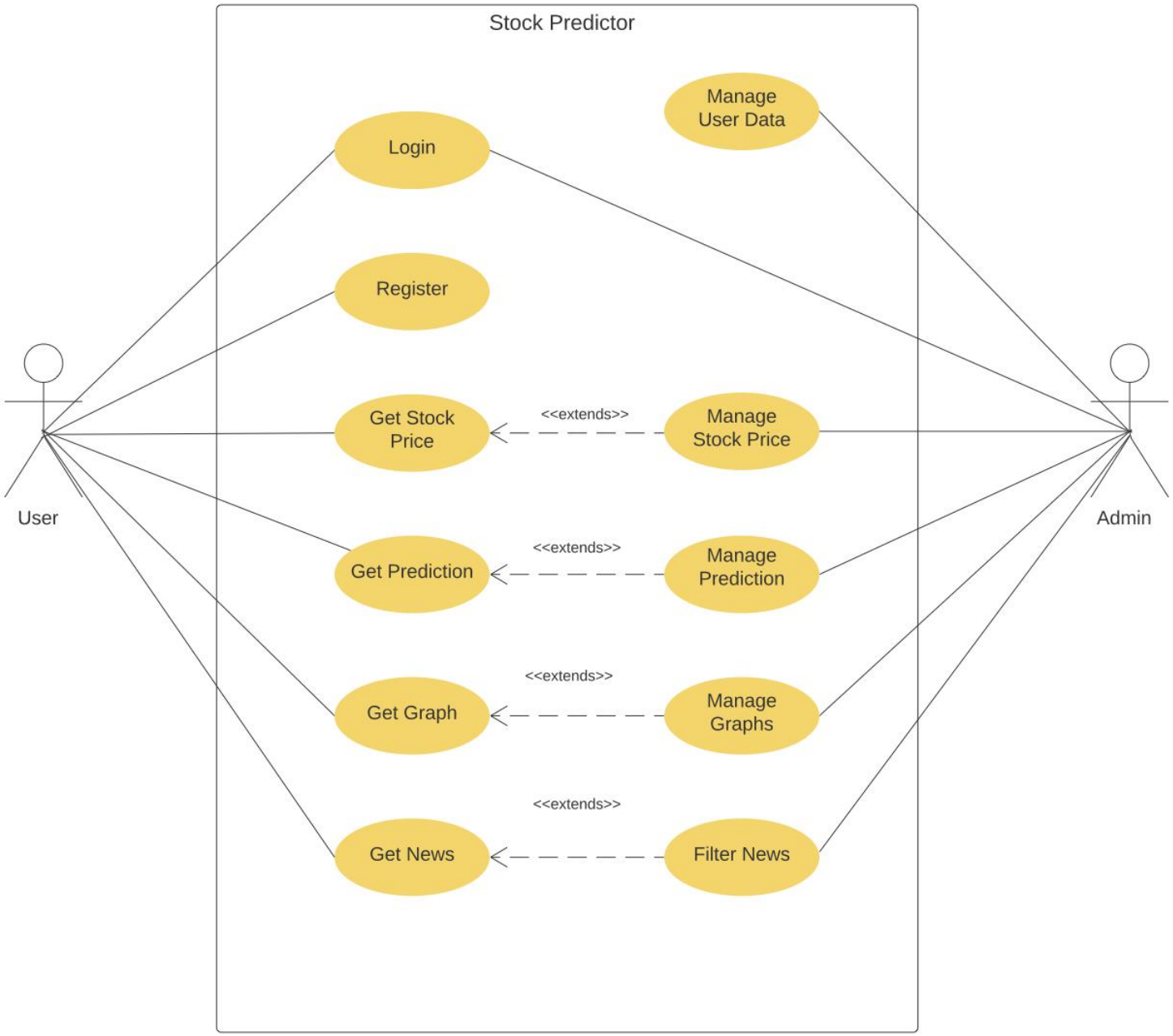
We have an algorithm for predicting the end-of-day price of a given stock with the help of Long Short-Term Memory (LSTM), a type of Recurrent Neural Network (RNN).

0 2

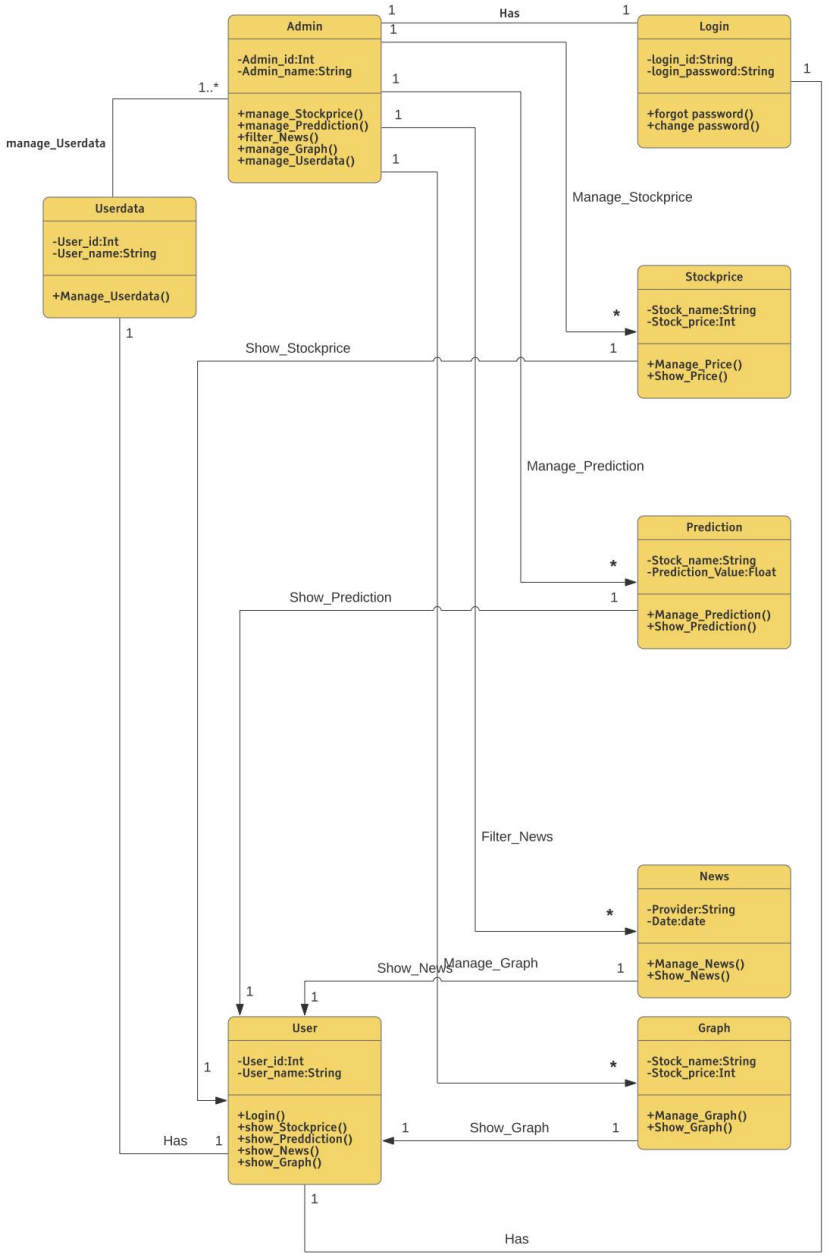
UML DIAGRAMS

- Use-Case Diagram
- Class Diagram
- Activity Diagram
- Sequence Diagram
- State Chart Diagram

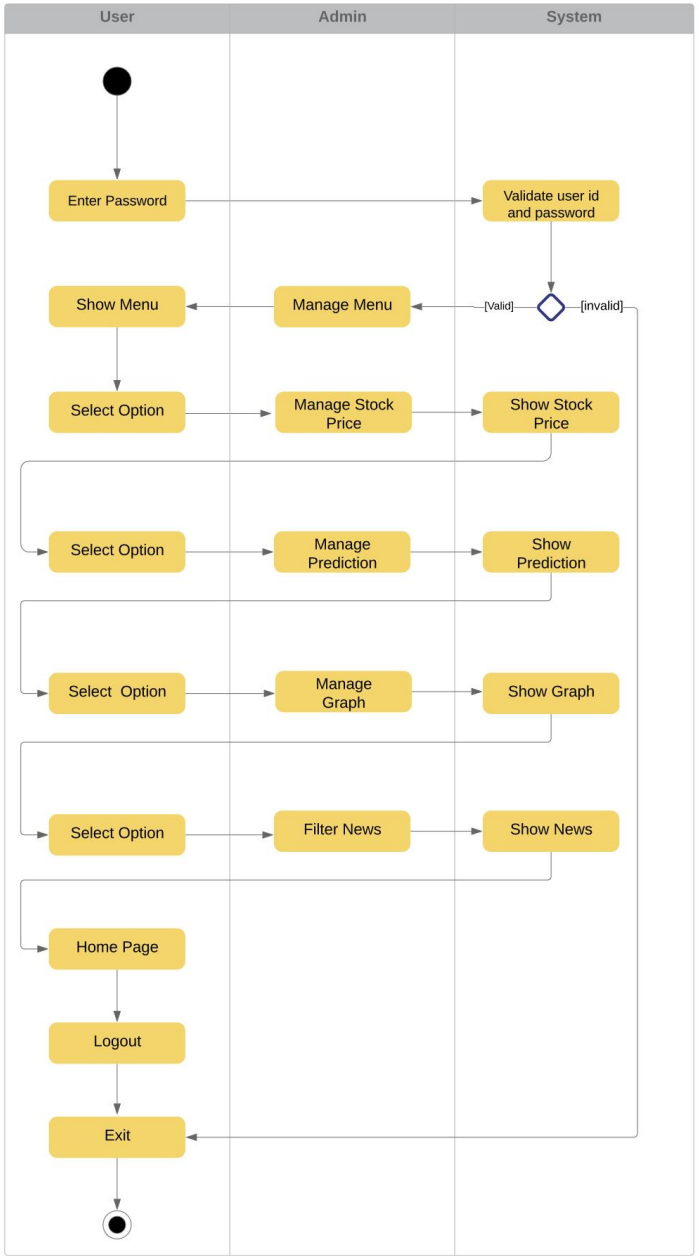
Use-Case Diagram



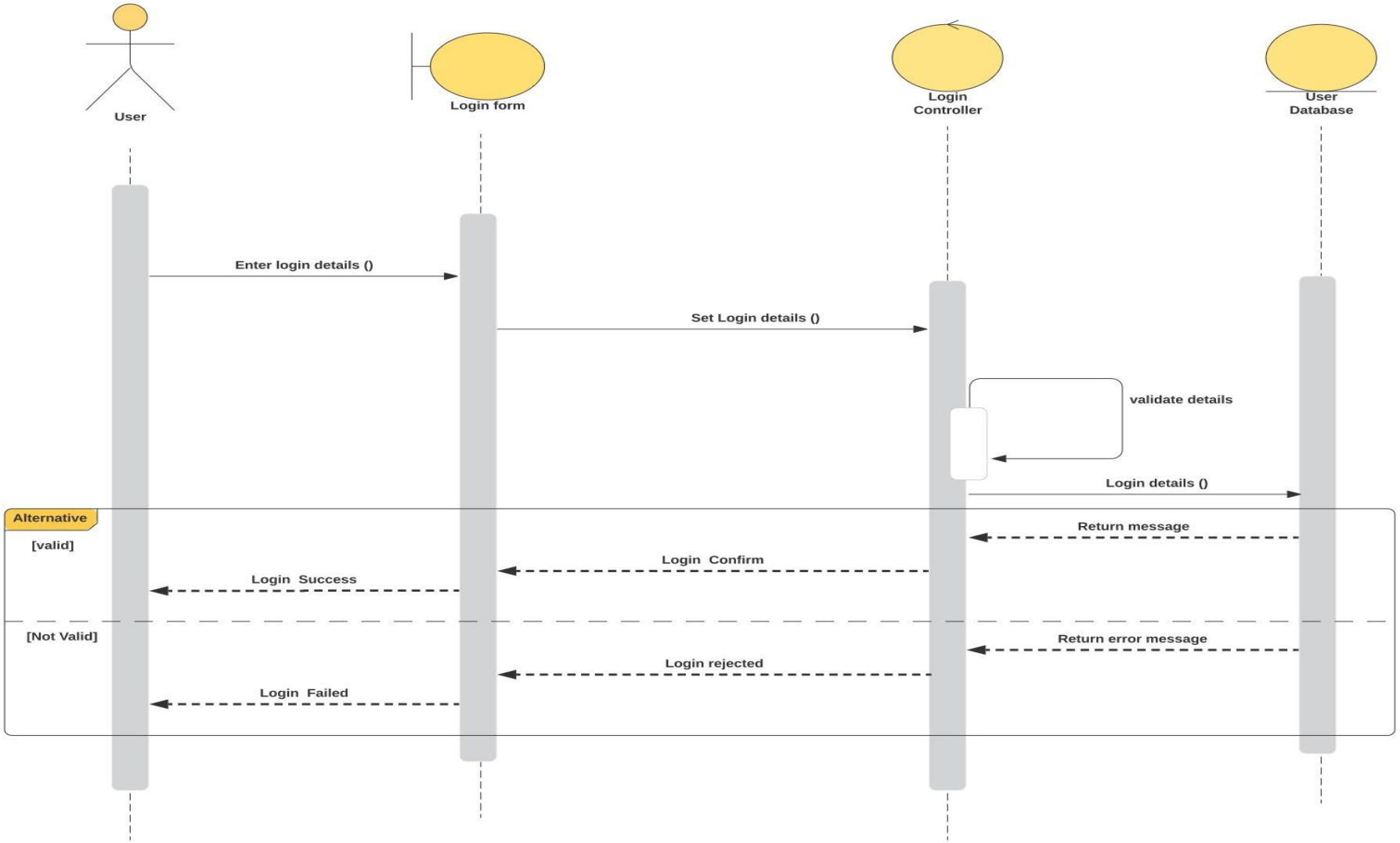
Class Diagram



Activity Diagram

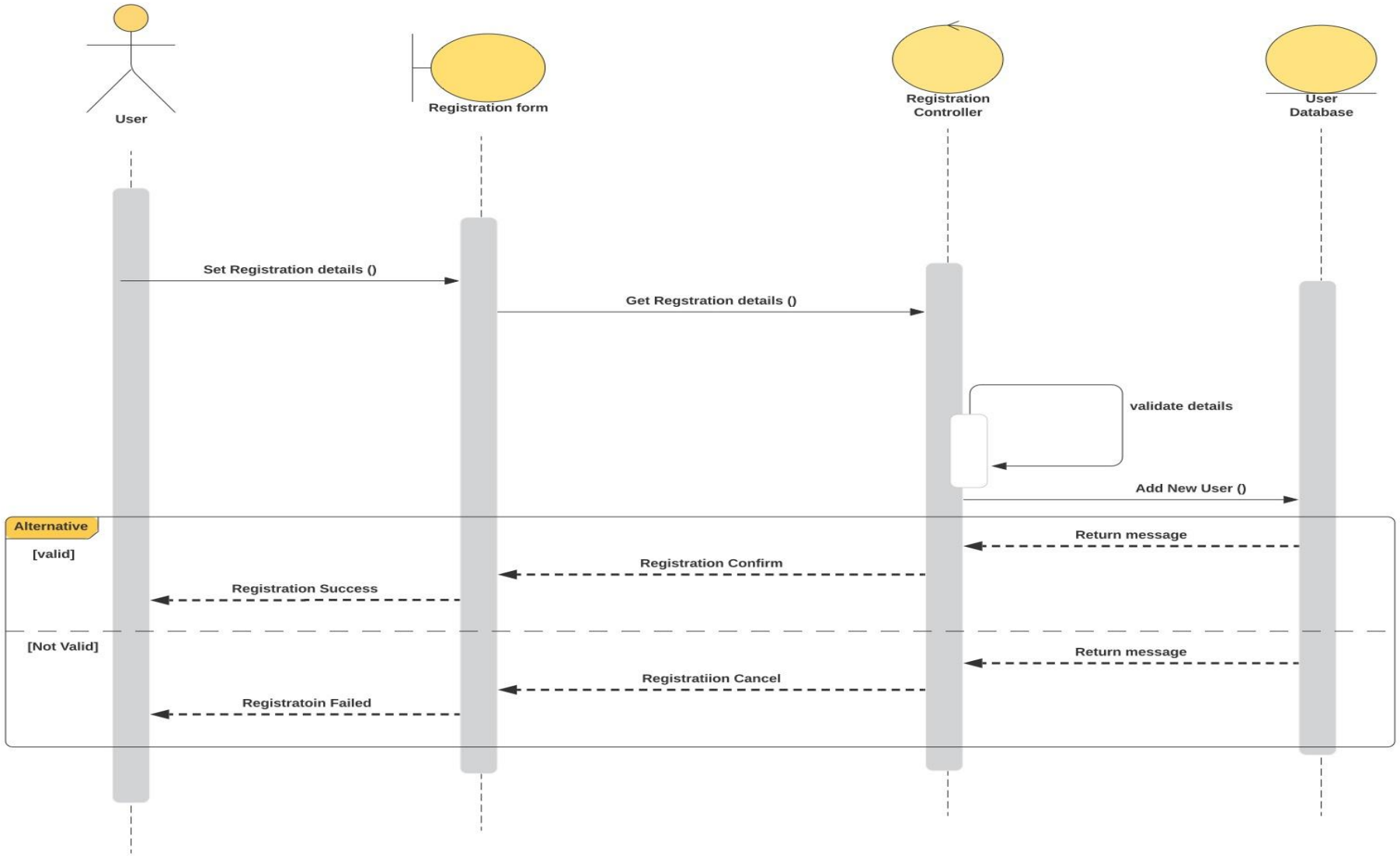


Sequence Diagram



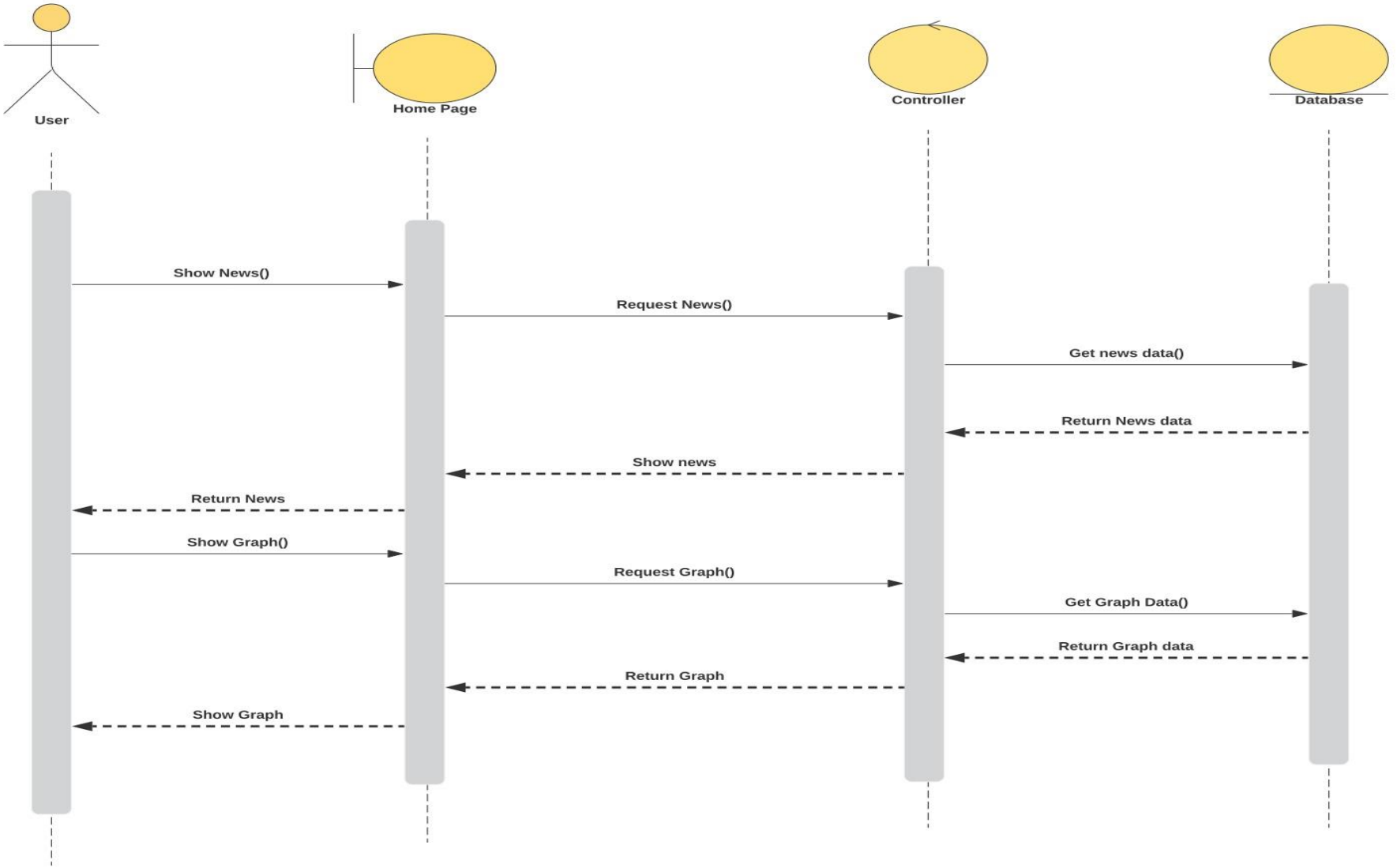
Login Sequence Diagram

Sequence Diagram



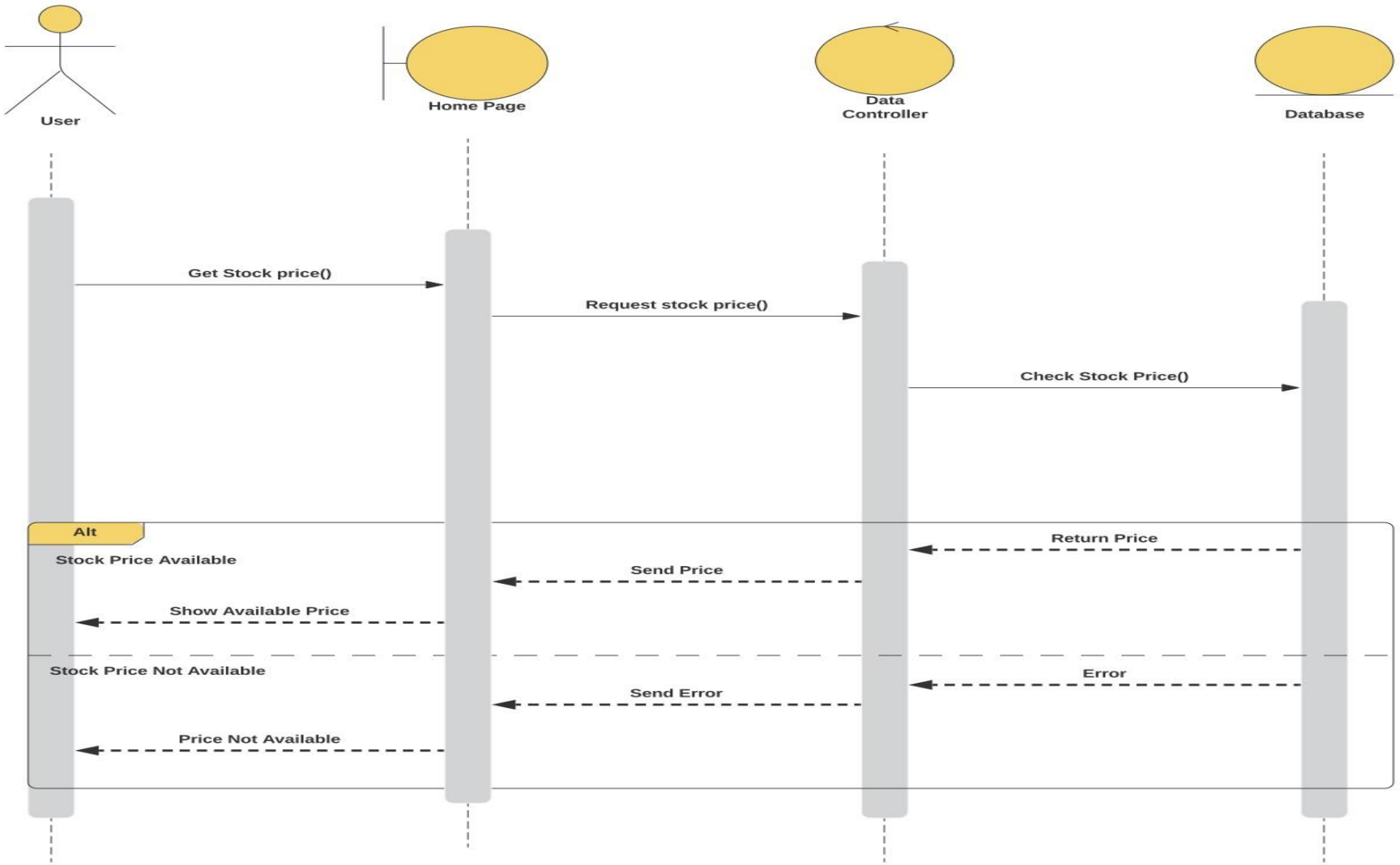
Registration Sequence Diagram

Sequence Diagram



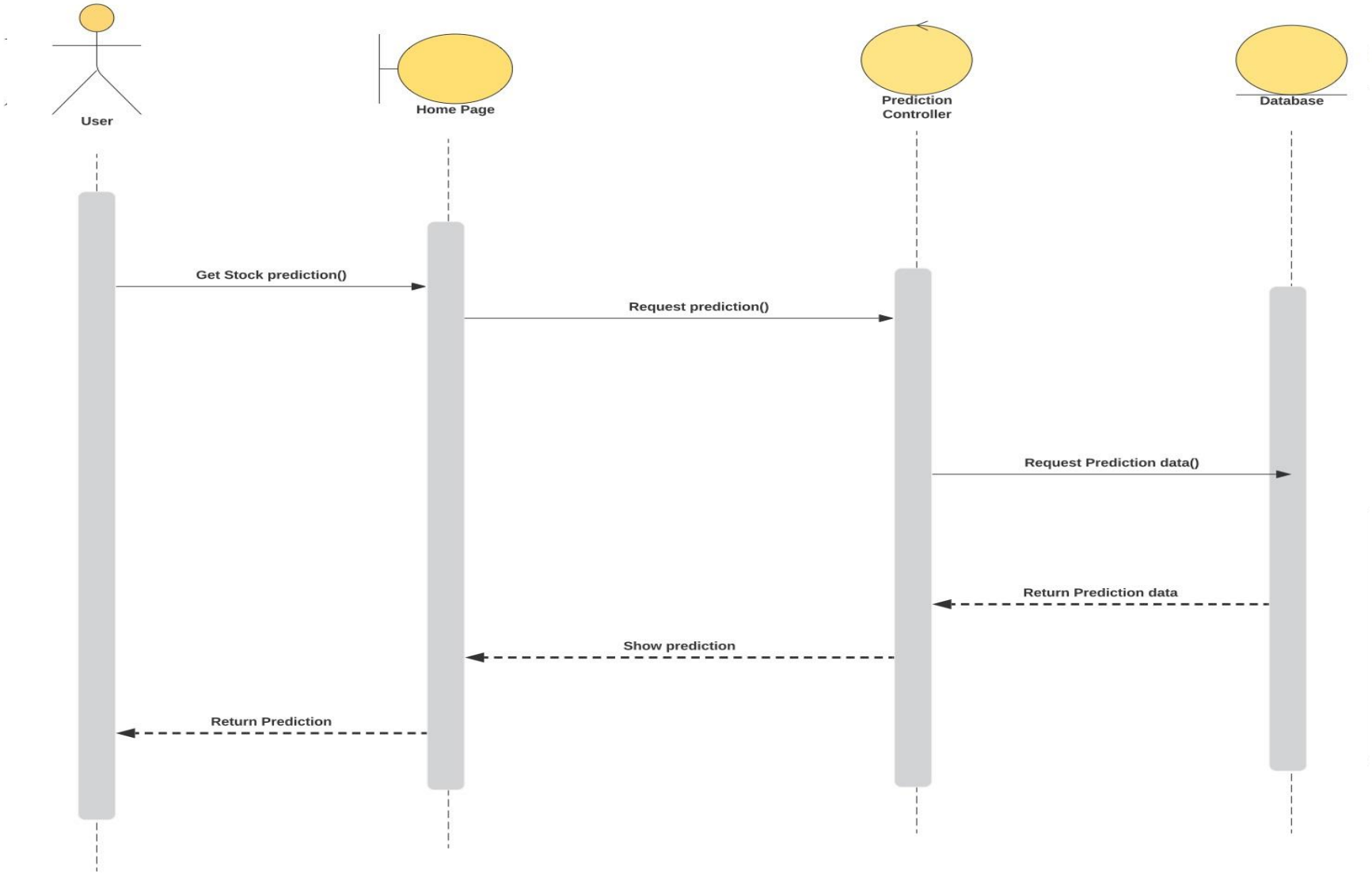
Get News & Graph Sequence Diagram

Sequence Diagram



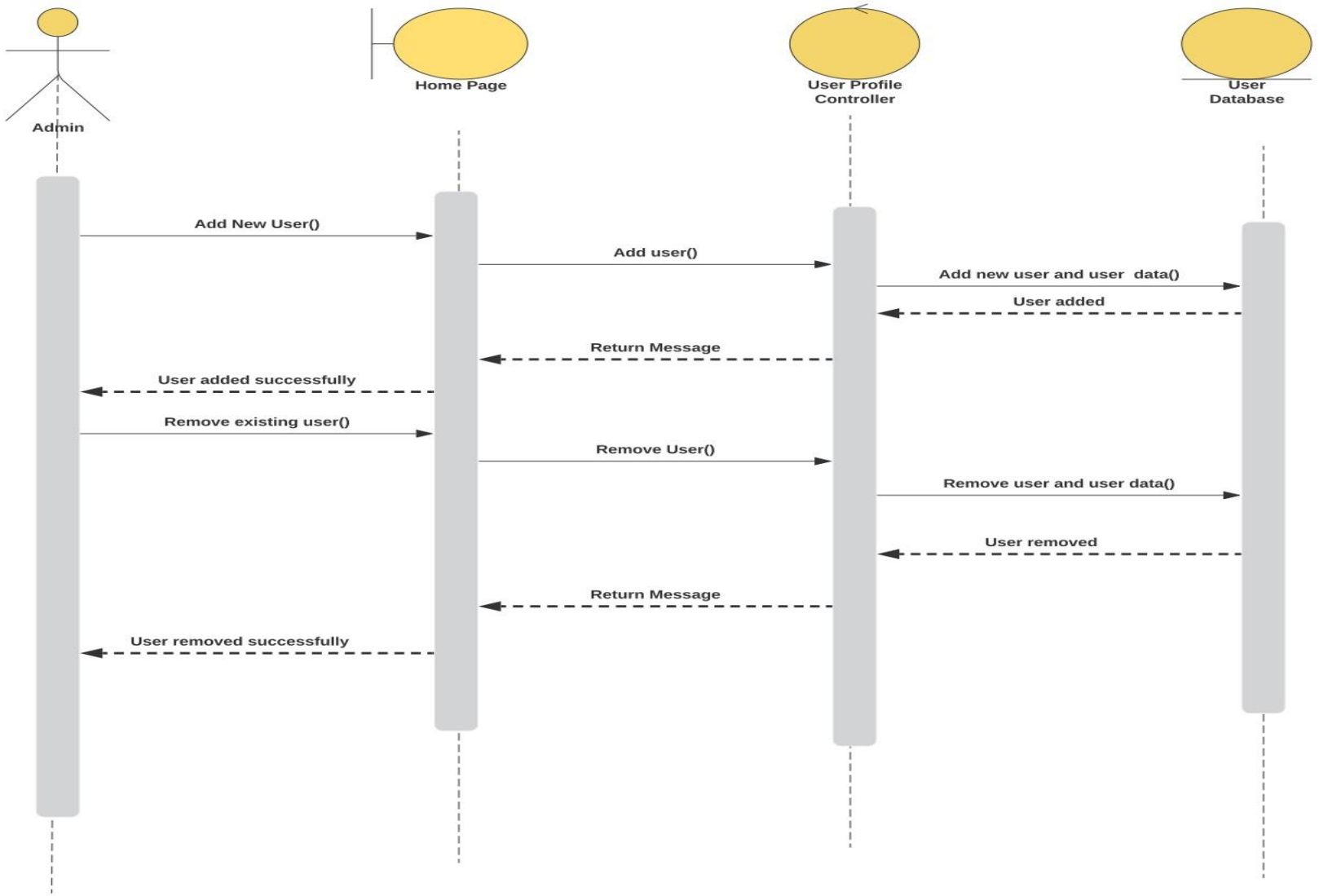
Get Stock Price Sequence Diagram

Sequence Diagram



Get Prediction Sequence Diagram

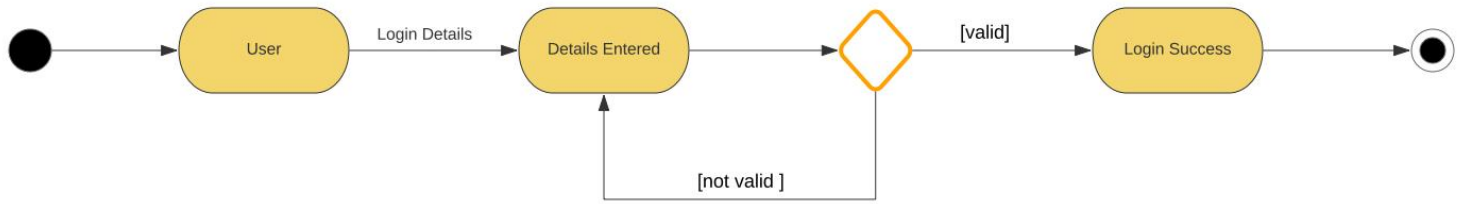
Sequence Diagram



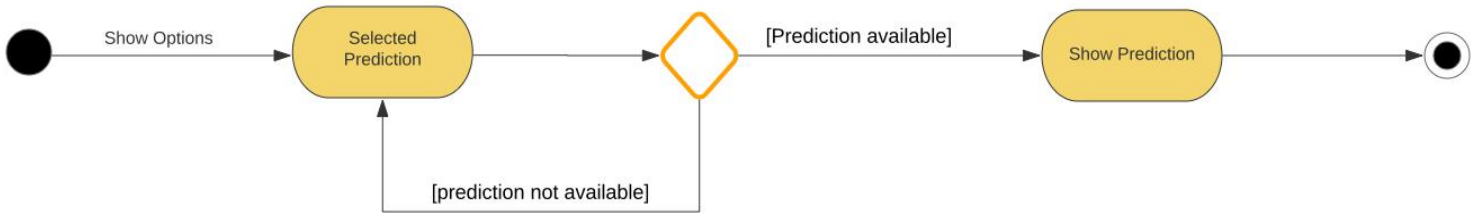
Manage User Profile Sequence Diagram

Sequence Diagram

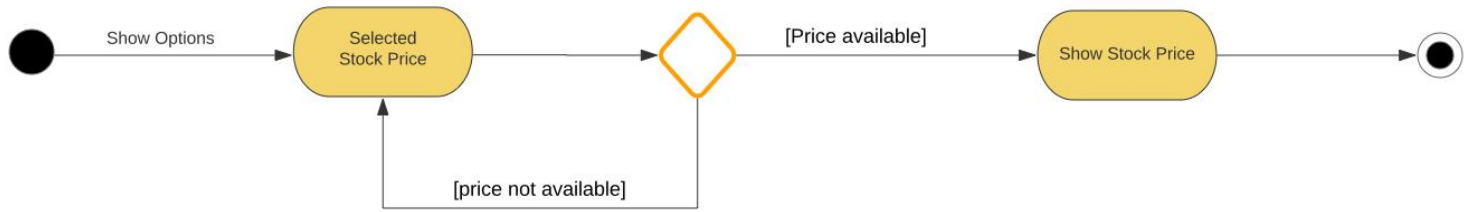
- Login



- Prediction

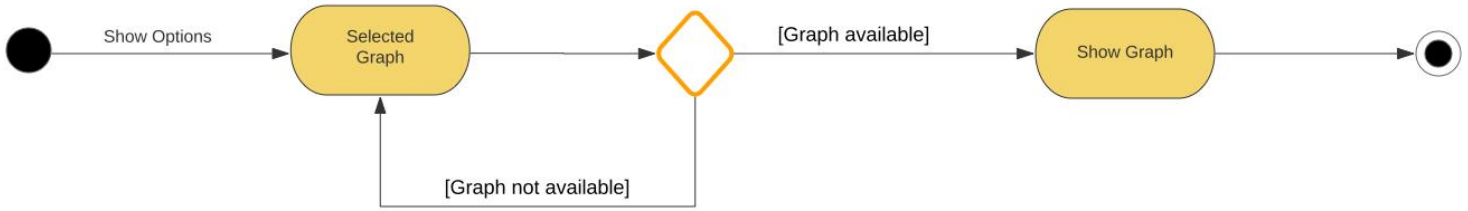


- Stock Price

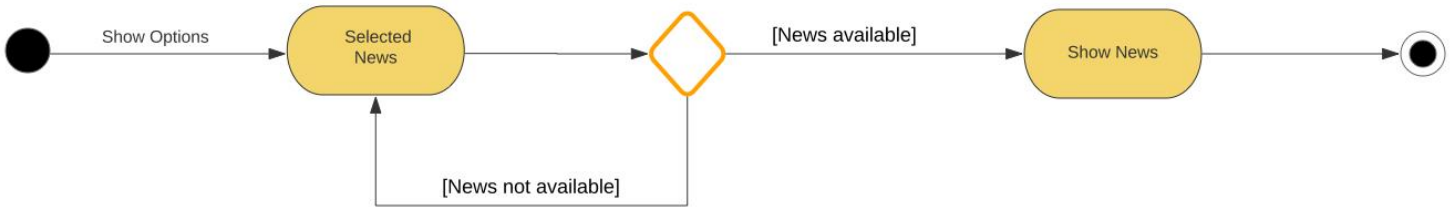


Sequence Diagram

- Graph



- News



0 3

DATA DICTIONARY

- Login
- Registration
- Stock Company Details
- Stock Details
- Prediction Table
- News Table

Data Dictionary

•Registration

Field Name	Data Type	Constraints	Description
User_ID	int()	Primary Key	user's registration id
First_Name	varchar()	not Null	user's First Name
Last_Name	varchar()	not Null	user's Last Name
Age	number	not Null	user's Age
Email	varchar()	not Null	user's Email
Username	varchar()	not Null	user's Username
Password	varchar()	not Null	user's Password

•Login

Field Name	Data Type	Constrains	Description
User_ID	int()	Foreign Key	Stores user's registration id
Username	varchar()	not Null	Store user's Username
Password	varchar()	not Null	Store user's Password

Data Dictionary

•Stock Company details

Field Name	Data Type	Constraints	Description
Comp_id	varchar()	Primary Key	Company's id
Comp_Name	varchar()	not Null	Company's Name
Comp_Website	varchar()	not Null	Company's Website
Type	varchar()	not Null	Company's description
Size	varchar()	not Null	Company's size
Revenue	varchar()	not Null	Company's Revenue
Headquarters	varchar()	not Null	Company's Address
Founded	int()	not Null	Established Year
Industry	varchar()	not Null	Industry info

Data Dictionary

- Stock Details

Field Name	Data Type	Constraints	Description
Comp_id	varchar()	Foreign Key	Company's Id
Date	Date	not Null	Date of current data
Open	Double()	not null	Open price of stock
Close	Double()	not Null	Close price of stock
Shares_traded	Double()	not null	Total traded quantity
Turnover	Double()	not Null	Turnover in lacs

Data Dictionary

•Prediction Table

Field Name	Data Type	Constraints	Description
Prediction_ID	varchar()	Primary Key	Prediction Id
Comp_id	Varchar()	Foreign Key	Company's ID
User_ID	Varchar()	Foreign Key	User's Id
Prediction	Double()	Not Null	Get Prediction Details
Date	Date	Not Null	Date of current data
Open	Double()	not null	Open price of stock
Close	Double()	Not Null	Close price of stock
Shares_traded	Double()	Not null	Total traded quantity
Turnover	Double()	Not Null	Turnover in lacs

Data Dictionary

•News Table

Field Name	Data Type	Constraints	Description
News_name	Varchar()	not Null	News provider`s name
Date	Date()	not Null	News date
Content	varchar()	not Null	News content

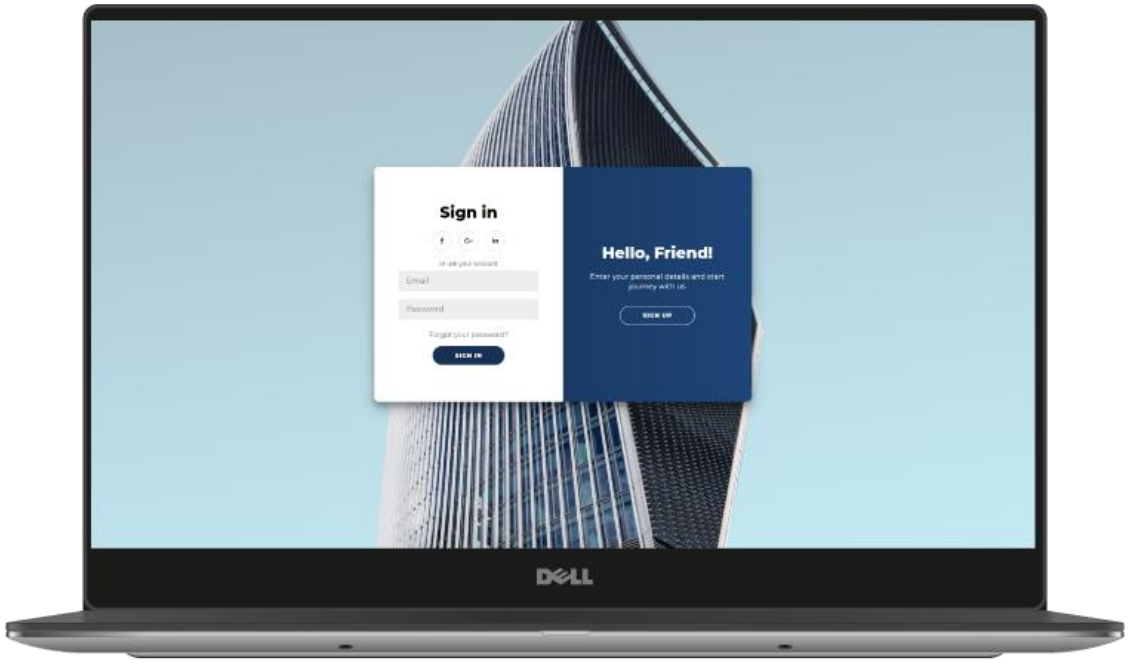
0 4

SAMPLE SCREEN LAYOUTS

Sample Screen Layouts

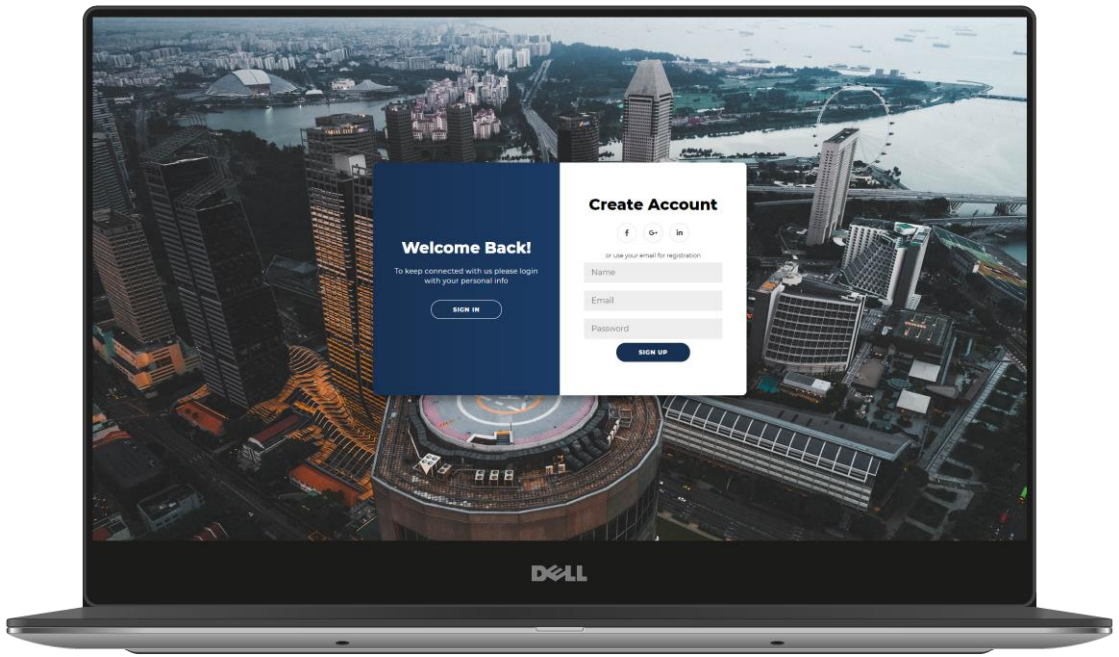
Main Page

Sign In

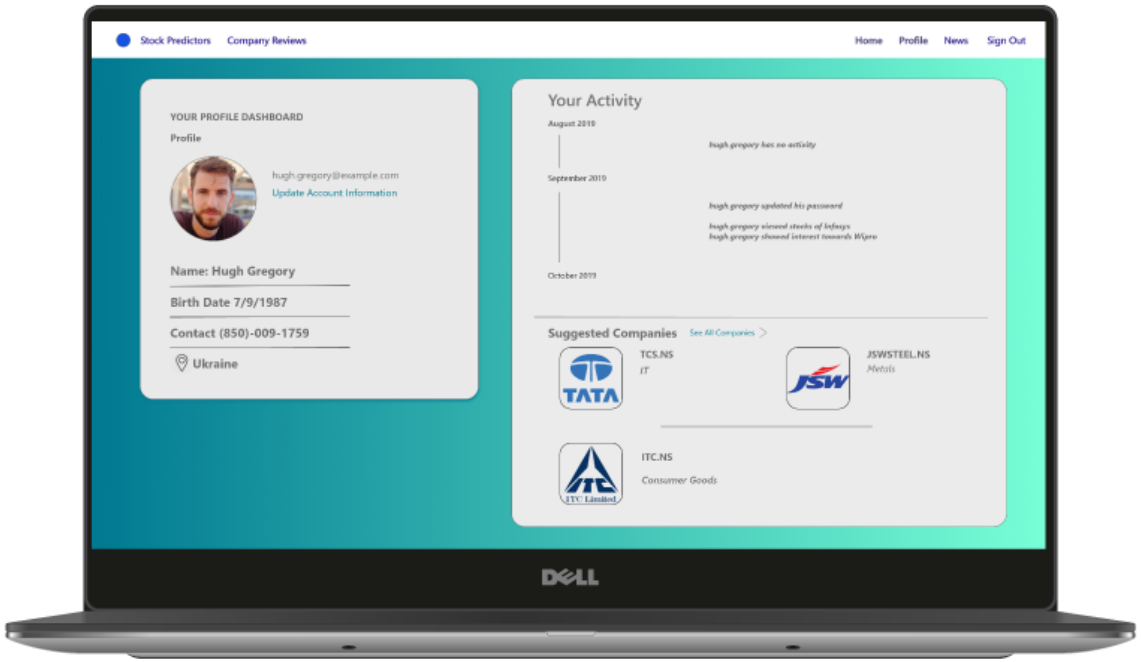


Sample Screen Layouts

Sign Up



Dashboard



Conclusion

Stock market are hard to monitor and require plenty of data to interpret the movement and predict prices. Pure number crunching and analysis have their limitations; a possible extension of this stock prediction system would be to augment it with a news feed. The system build here has a simple user interface which helps users meet their demands

Bibliography

1. *Stock Price Prediction Using Long Short Term Memory*. **Raghav Nandakumar, Uttamraj K R, Vishal R, Y V Lokeshwari**. Chennai : IRJET, 2018, p. 3342.
2. **Maitra, Sarit**. *A Medium Corporation. [Online]* July 21, 2019. *https://medium.com/predictiveanalytics-for-stock-market-prediction/machine-learning-algorithm-for-stock-predictione75c678d05c7*.

Thank You