Easy Exchange

Submitted By

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This Project report has been submitted in fulfillment of the requirements for the Degree of

Bachelor of science in Software Engineering

DEVOTION

1. I dedicate this endeavor to my good Father and Mother, my chief, and my Honorable teachers who are each situation dear and near me. Without their comprehension, understanding, unsparing assistance, care, fellowship, and love coming up to this spot was unrealistic

APPROVAL (Room- 610)

This project titled on "Easy Exchange", submitted by **Abdullah Al Asif (ID: 182-35-2548)** to the Department of Software Engineering, Daffodil International University has been accepted as satisfactory for the partial fulfillment of the requirements for the degree of Bachelor of Science in Software Engineering and approval as to its style and contents.

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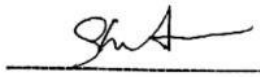

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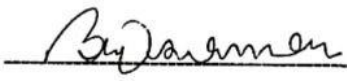

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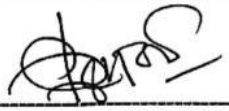

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DECLARATION

It hereby declares that this project has been done by **Abdullah Al Asif** under the supervision of **Mr. Khalid Been Badruzzaman Biplob, Senior Lecturer,** Department of Software Engineering, Daffodil International University. It also declares that neither this project nor any part of this has been submitted elsewhere for award of any degree.

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ACKNOWLEDGEMENT

At first, I should thank all-strong Allah. Anyway, I have taken tried this assignment. It would never have been possible without the caring and endlessly help of various individuals. I should loosen up my sincerity due to all of them.

Finally, I should thank my people for keeping me in their solicitations and supporting me to be better at every movement of the way. Without their love and support, I wouldn't make progress.

To sum up, without the help of the referred sponsorships, the endeavor wouldn't be possible.

ABSTRACT

This software is actually designed for showing realtime data of cryptocurrency market. Also have flexibility on searching stock by its name, price. Notifying system for buying and selling. Which is automated.That means if any client wants to get notify about any stock. They just have to simply set a price. And the system will notify the client in email when this stock reaches that price. Also this system is able to show market analysis of any stock. In summary this system will provide many features free which is premium on the internet.

TABLE OF CONTENT

PART 1: INTRODUCTION

1.1 Overview

Easy Exchange is an on the web based platform where people will able to see the cryptocurrency stock market. They will able to do flexible searching by the stock name, price. And also get notify by the stock price in their email. Which is automated.

1.2 Objectives

Easy Exchange is actually for making the stock exchange process easy. Client don't have to give all of his time in market. Simply setting price on stock is enough. Then the system will automatically notify him/her. Which is make things easy.

1.3 Background

Nowadays people are busy with many things. Specially those who are doing job but also want to do stock exchange business they don't get enough time to give. This system is helpful for them.

1.4 Benefits

- Easy to explore stock exchange market.
- Searching the stock by name or price.
- Set price for a stock for buying and selling purpose.
- Get notification in email based on the price client set.

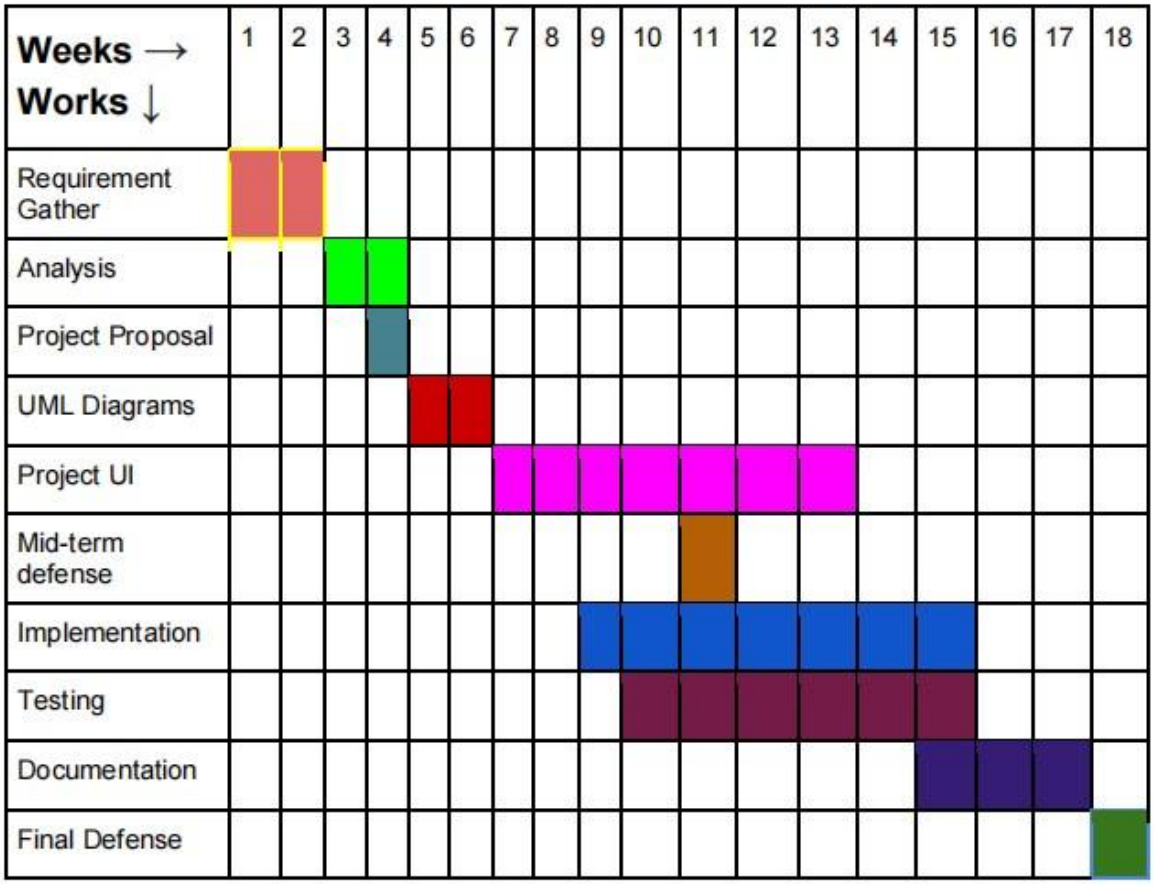
1.5 Goals

- ✓ User friendly stock exchange website
- ✓ Searching stock name fast and flexible
- ✓ Buying / Selling notification in email
- ✓ Take a good decision from user friendly graph
- ✓ Making stock exchange business for those who are busy

1.6 Stakeholders

- User
- Admin

1.7 Gantt Chart



PART 2: SOFTWARE REQUIREMENT SPECIFICATION

2.1 Functional Requirements

FR No.	Requirement Statement
FR01	It is possible for anyone to create another record and then log in to the system afterward. Stack holder: User, Admin
FR02	After login system navigate the client to Home page Stack holder: User, Admin
FR03	Client will be able to search stock by their Name Stack holder: User, Admin
FR04	Client will be able to search stock by their Price Stack holder: User, Admin
FR05	User and overseer both are see there Profile name, email, phone number and can change information. Stack holder: User, Admin
FR06	Client will be able to sort the stock name Stack holder: User, Admin
FR07	User can click on a stock and it will navigate him to this stock' page Stack holder: Admin
FR08	User will be able to set a price for a specific stock for notifying in email. Stack holder: User, Admin
FR09	Client can see the stock price in graph for year, months, days. Stack holder: User
FR10	Client can convert the stock price BDT or Dollar Stack holder: User, Admin

2.2 Non-Functional Requirements

Non-functional requirements characterize the quality and the exhibition characteristic of the framework. Non-functional requirements presents a standard set that is utilized to pass judgment on the particular activity of the framework.

Here is the non-utilitarian necessity of my task:

2.2.1 Performance

NFR 1	Performance
Description	When the administrator searches to play out a specific work then the results should show up.
Stakeholders	Admin

NFR 2	Capacity
Description	Framework will actually want to record up to thousands information and the data of the framework will be put away in data set.
Stakeholders	Admin

2.2.3 Reliability

NFR 3	Reliability
Description	Application ought to have the option to satisfy its practical necessities. The framework update is exceptionally fundamental and routinely.
Stakeholders	Admin

2.2.4 Security

NFR 4	Security
Description	All information needs to shield from outside assault. Encryption security is one extraordinary arrangement. Verification of each and every solicitation ought to be guaranteed.
Stakeholders	Admin

2.2.5 Maintainability

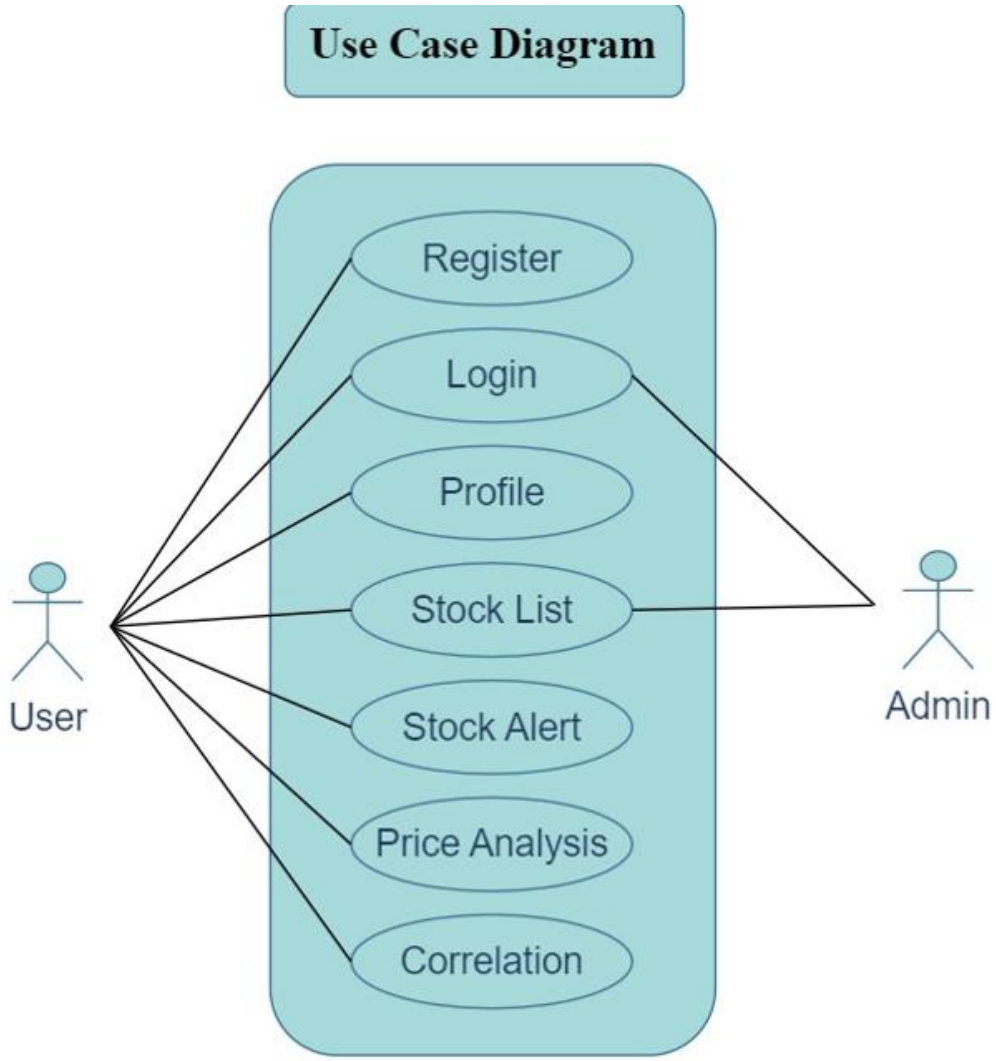
NFR 5	Maintainability
Description	Administrator can undoubtedly keep up with the entire framework, all the profile and can refresh a particular region's data
Stakeholders	Admin

2.2.6 Availability

NFR 6	Availability
Description	The application ought to be accessible 24 hours of a day (24x7)
Stakeholders	Admin

PART 3: SYSTEM ANALYSIS & DESIGN

3.1 Use Case Diagram:



3.2 **Use Cases Description**

Use Case Id	UC-1
Use Case Name	Registration
Scenario	User will be able to create new account
Trigger	Button.
Goal	Creating a account for client.
Stakeholders	User

Use Case Id	UC-2
Use Case Name	Login
Scenario	User will be able to log in if they previously registered.
Trigger	Button.
Goal	Login the use into the application.
Stakeholders	User and Admin

Use Case Id	UC-3
Use Case Name	Profile
Scenario	User can visit his own profile page and also able to edit his personal information.
Trigger	Button.
Goal	Giving permission to access his profile means can do edit on his own information.
Stakeholders	User

Use Case Id	UC-4
Use Case Name	Stock List
Scenario	User will be able to navigate the stock list page.
Trigger	Button.
Goal	Showing user the total stock list.
Stakeholders	User and Admin

Use Case Id	UC-5
Use Case Name	Stock Alert
Scenario	User will be able to set a certain price on a stock for getting notification in user's email.
Trigger	Button.
Goal	Getting notification in his email for a specific stocks if user wants.
Stakeholders	User

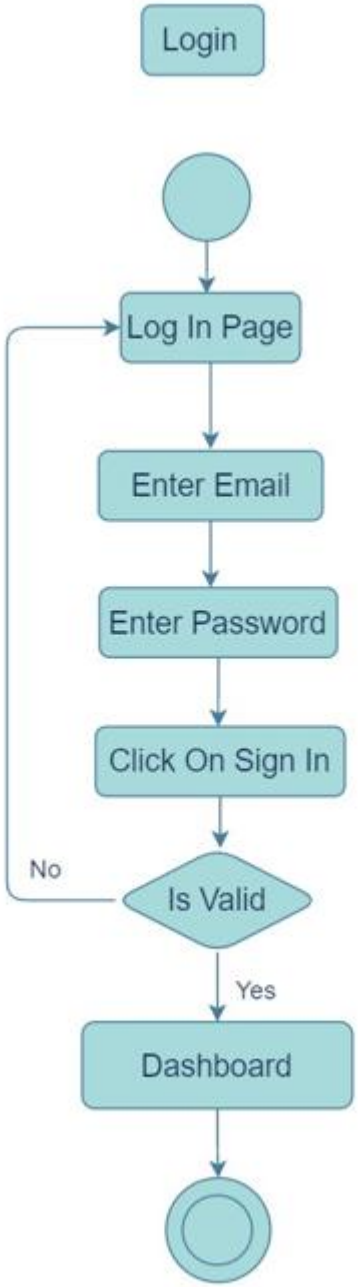
Use Case Id	UC-6
Use Case Name	Price Analysis
Scenario	User will able to see the price history of a stock in year, months, days.
Trigger	Button.
Goal	Showing user the stock prices list in graph.
Stakeholders	User

Use Case Id	UC-7
Use Case Name	Correlation
Scenario	User will be able to see two stocks for comparing or taking decision for buy/sell.
Trigger	Button
Goal	Giving users a prediction for taking a decision for buying or selling
Stakeholders	User

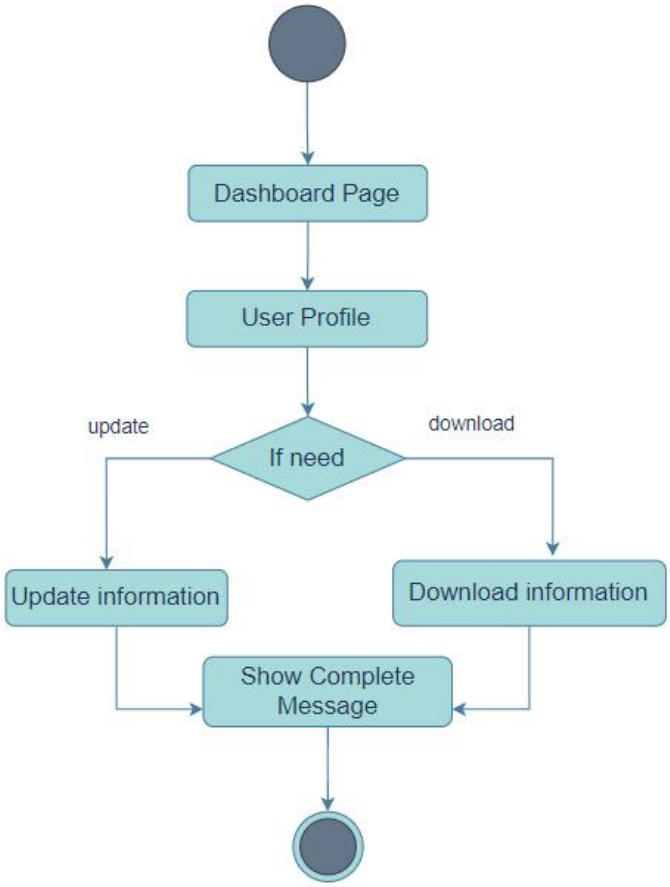
3.3 **Activity Diagram**

3.4.1 - Registration

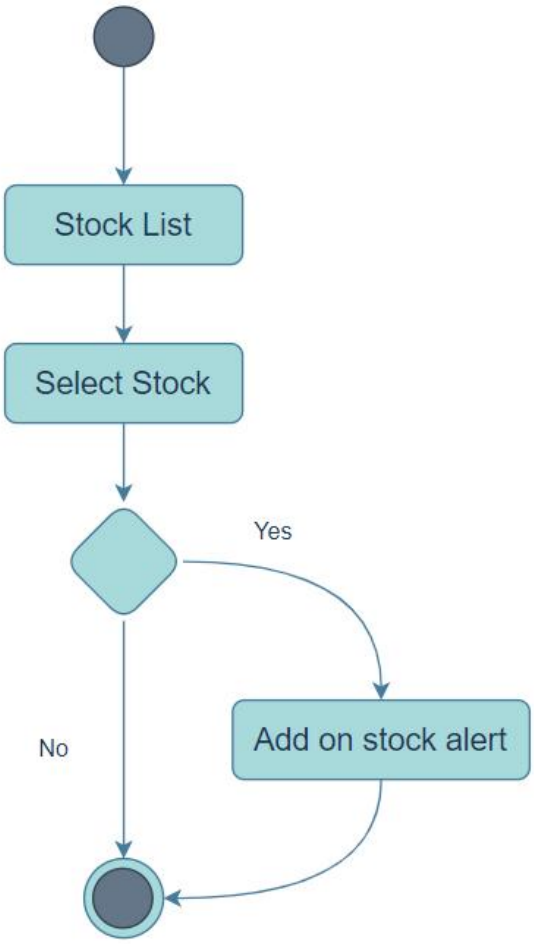
3.4.2 - Login



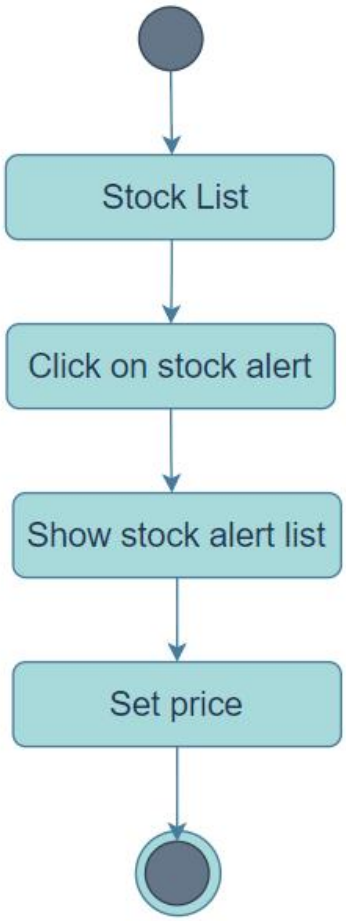
3.4.3 - Profile



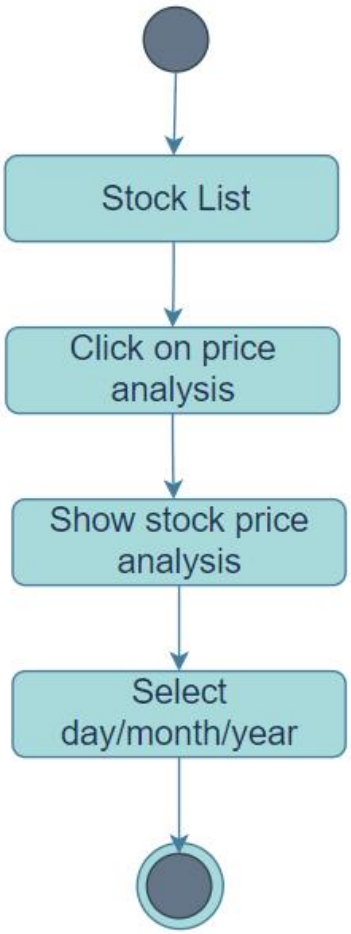
3.4.5 - Stock List



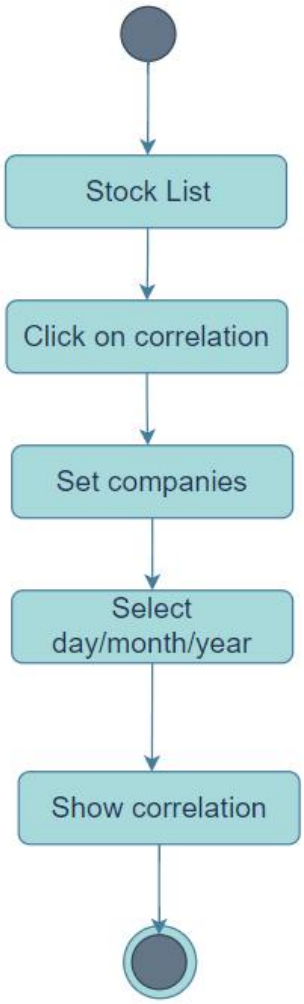
3.4.6 - Stock Alert



3.4.7 - Price Analysis

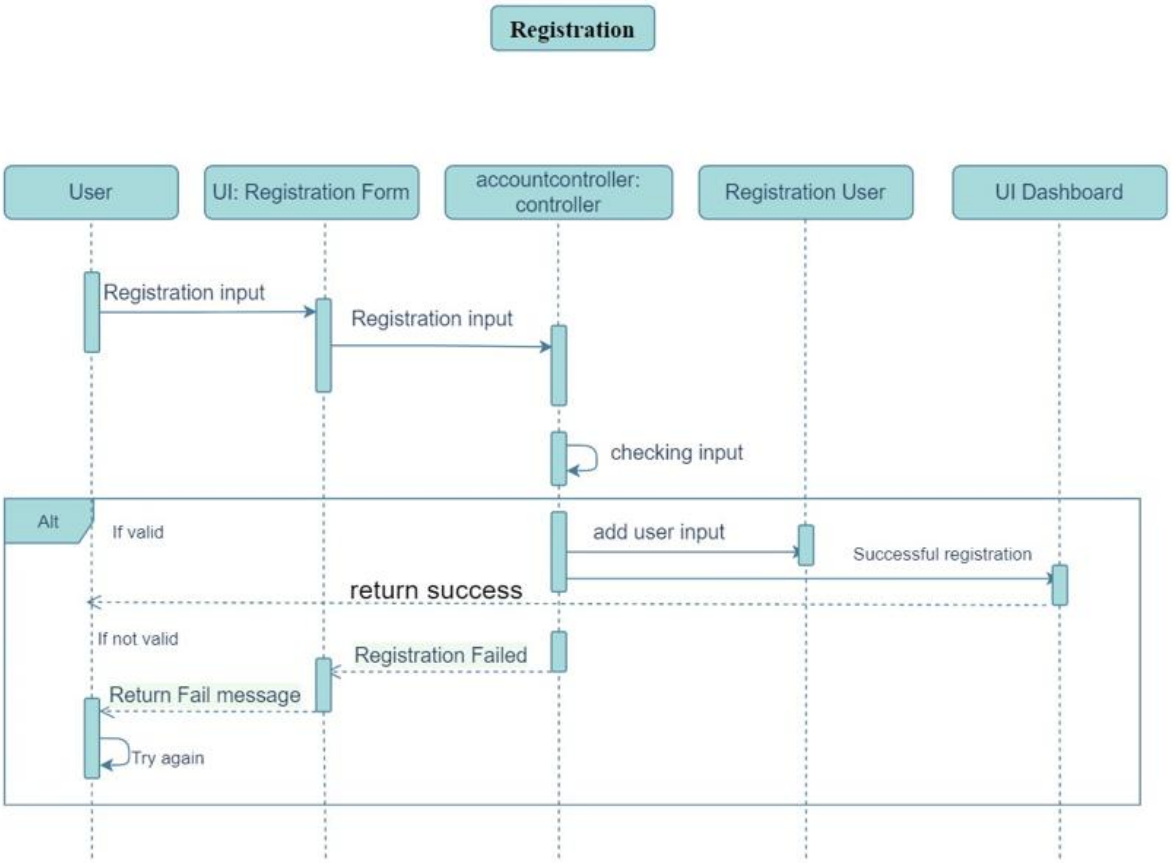


3.4.8 - Correlation

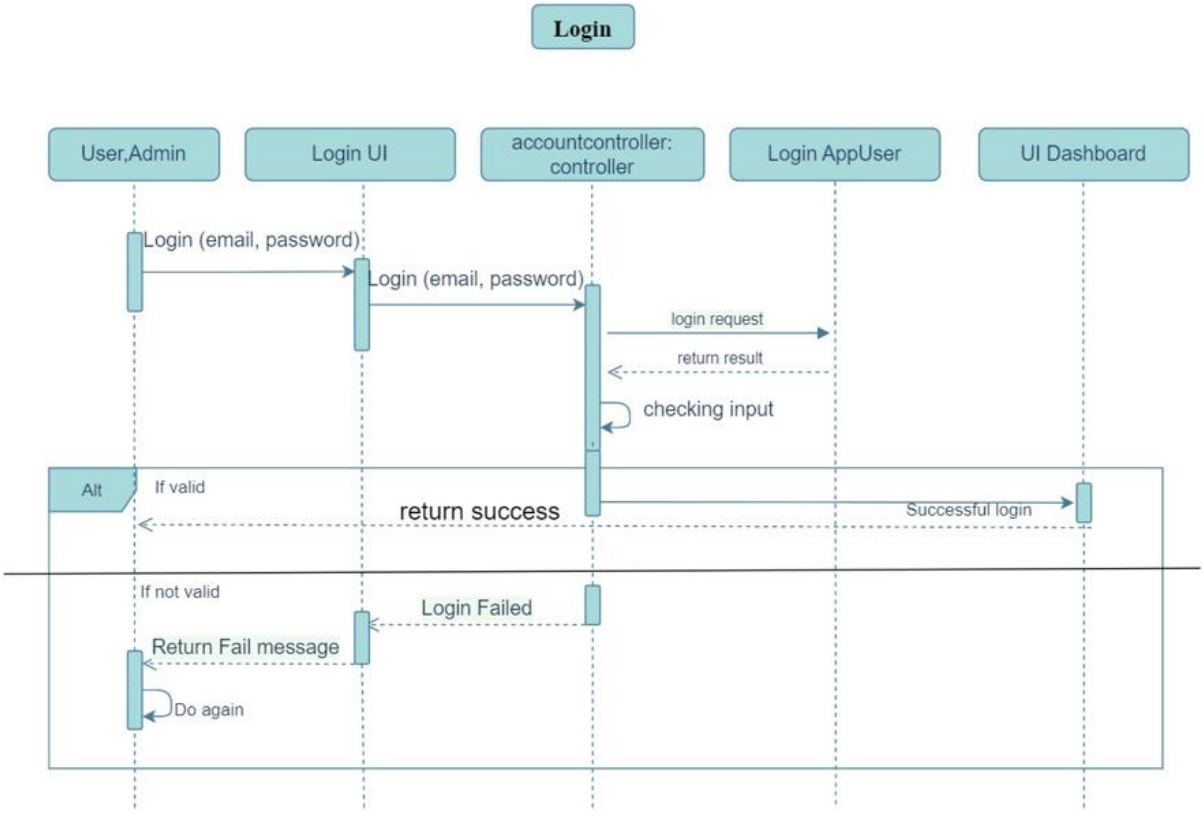


3.5 Sequence Diagram:

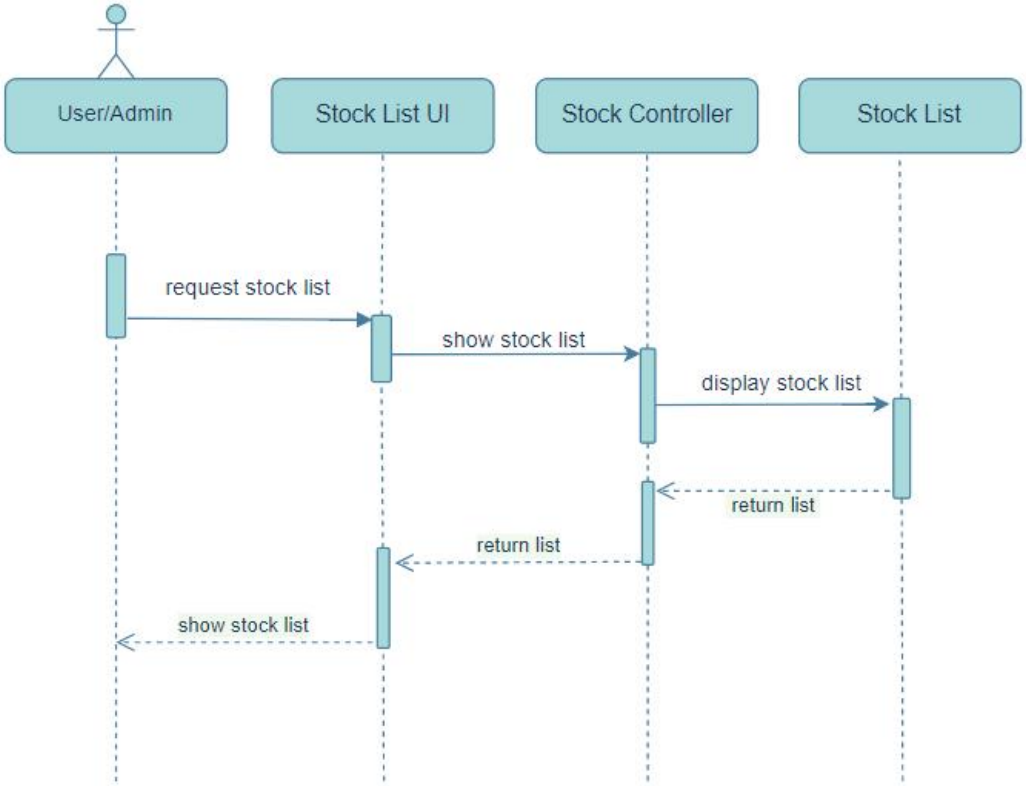
3.5.1 - Registration



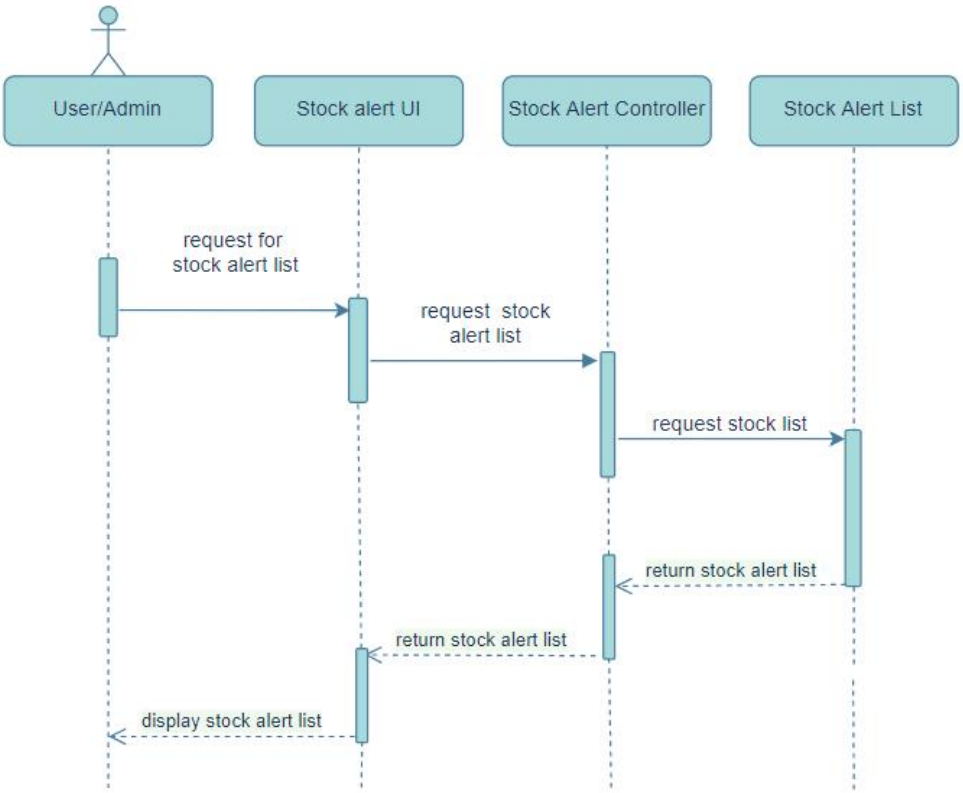
3.5.2 - Login



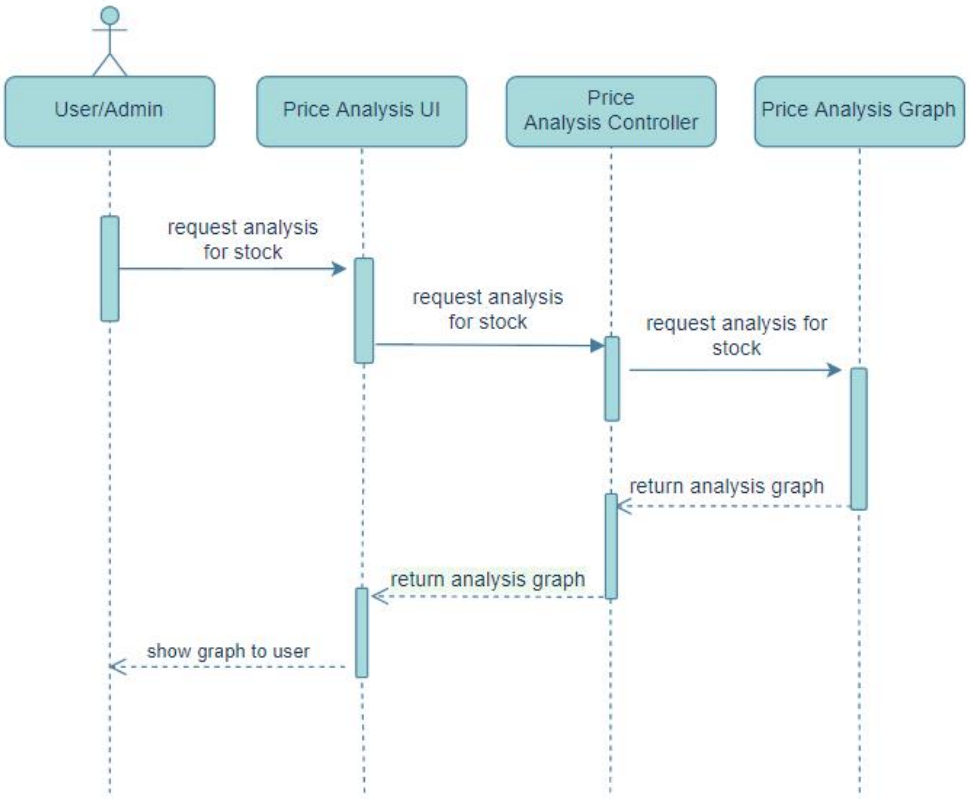
3.5.3 - Stock List



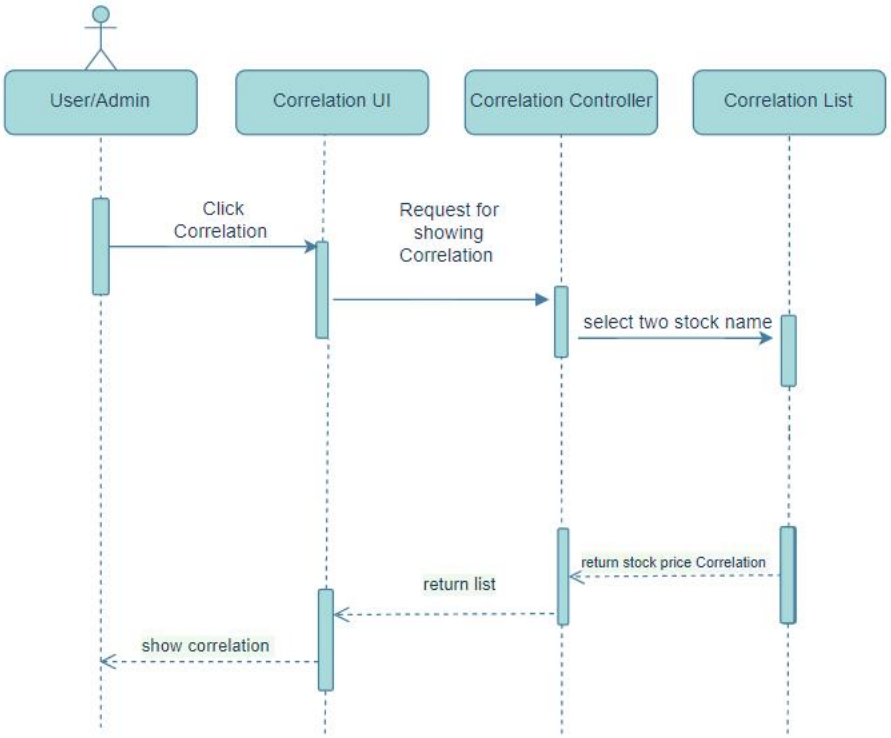
3.5.4 - Stock Alert



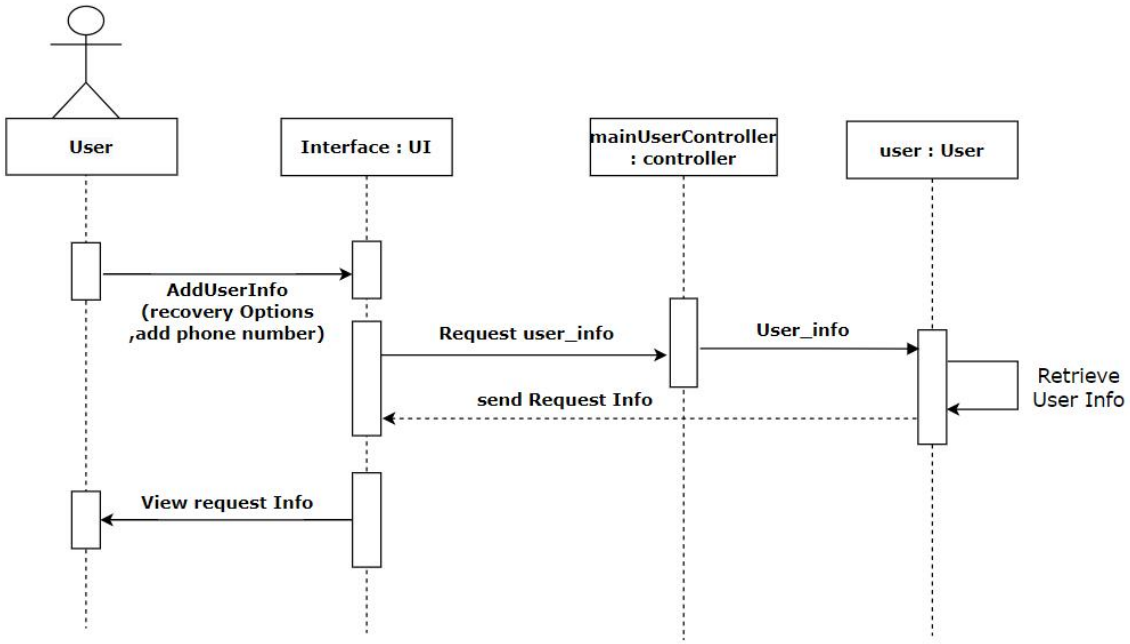
3.5.5 - Price Analysis



3.5.6 - Correlation

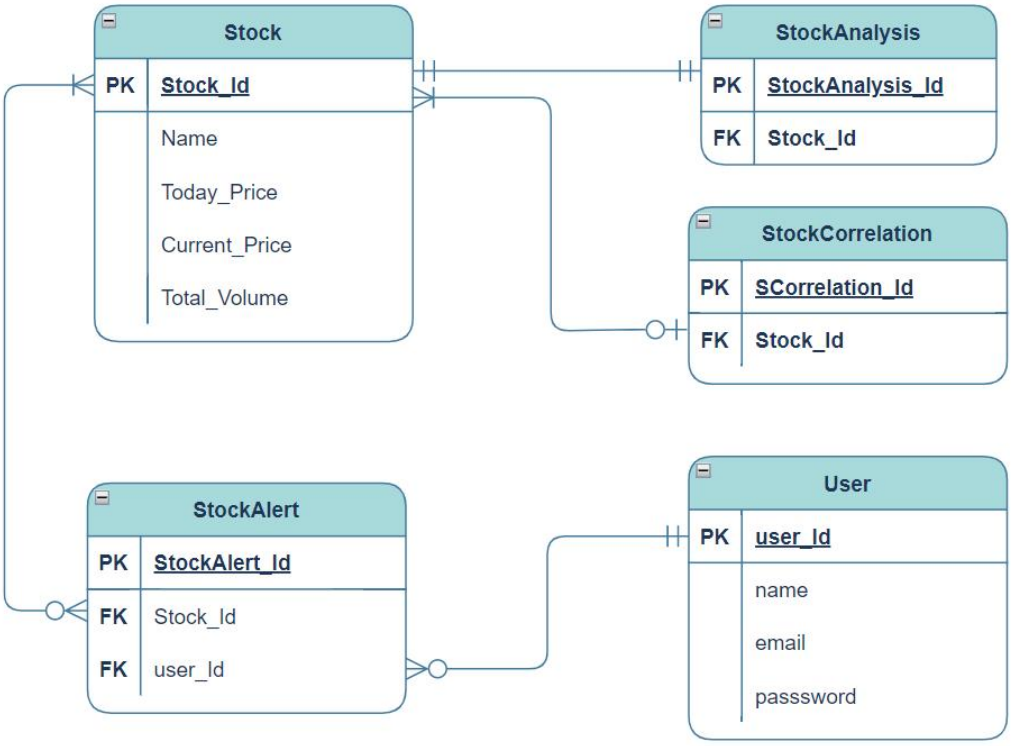


3.5.7 - Profile

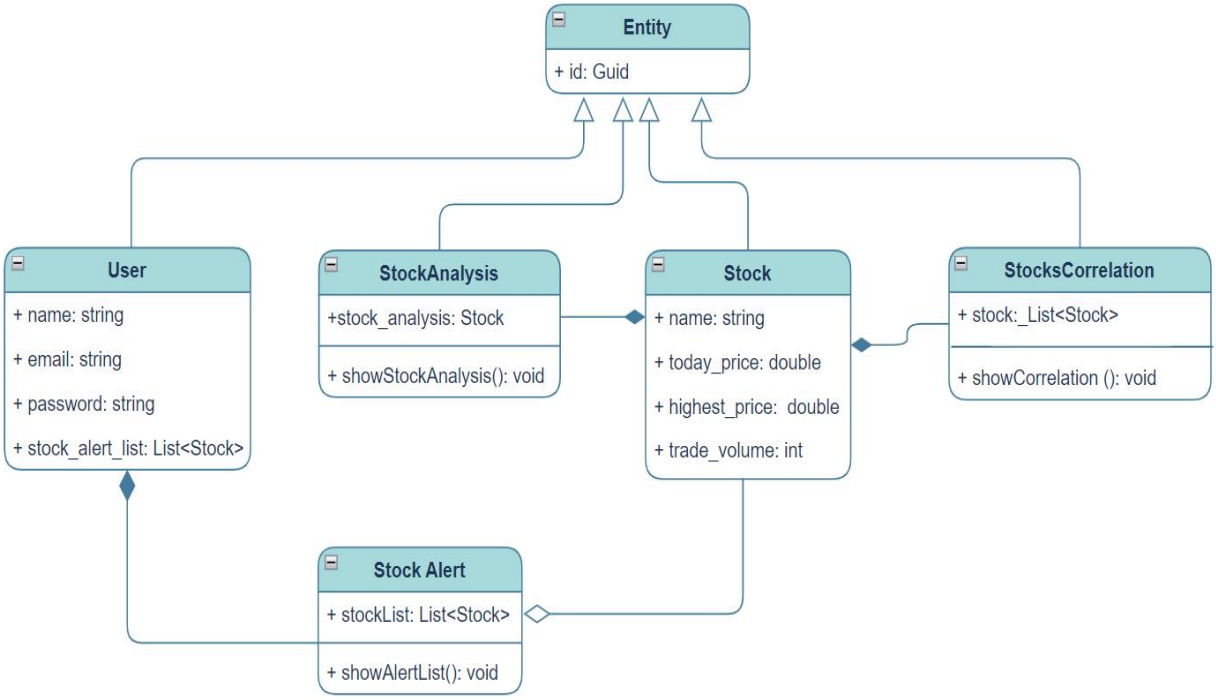


PART 4: DATABASE & CLASS DESIGN

4.1 Entity Relationship Diagram



4.2 Class Diagram



PART 5: TESTING

5.1 Testing Approach

1.The whole structure will be attempted genuinely and one small step at a time.
2.Client affirmation will be shown for the framework is attempted.
3.There are using some Unit Testing.

5.2 Pass/Fail Criteria

1. Part Pass/Fail rules - The test will pass if the case meets the article plan essential or lemon if not.

2. Incorporation Pass/Fail guidelines - The test will pass expecting the case meets the article plan designing need or bomb if not.

Test cases

5.2.1 Test Case: 01

Test case #: 01	Test case name : Registration
System :	Subsystem : N/A
Design by : Asif Abdullah	Design Date :
Execute By : Asif Abdullah	Execution date :

Step	Action	Pass/fail	comment
1	At the point when a client clicks just login button without a top of any field	pass	Various fields are required
2	When a user give invalid email like abc.com	pass	Valid email is required
3	When a user give a valid email like abc@gmail.com	pass	Registration email is valid.

5.2.2 Test case 02

Test case #:02	Test case name Login
System :	Subsystem : N/A
Design by:Asif Abdullah	Design Date :
Execute By : Asif Abdullah	Execution date :

Step	Action	Pass/fail	comment
1	When a user doesn't fill all the form	pass	Various fields are required
2	When a user give email but not password	pass	Password is required
3	When a user give valid email and password	pass	Login is successful

5.2.3 Test Case: 03

Test case #:03	Test case name : Stock List
System :	Subsystem : N/A
Design by : Asif Abdullah	Design Date :
Execute By : Asif Abdullah	Execution date :

Step	Action	Pass/fail	comment
1	When a user click on stock list button	pass	List of stocks return successfully

5.2.4 Test Case: 04

Test case #:04	Test case name : Stock Alert
System :	Subsystem : N/A
Design by : Asif Abdullah	Design Date :
Execute By : Asif Abdullah	Execution date :

Step	Action	Pass/fail	comment
1	When a user set a price on a stock	pass	Send mail into the email successfully

5.2.5 Test Case: 05

Test case #:05	Test case name : Price Analysis
System :	Subsystem : N/A
Design by : Asif Abdullah	Design Date :
Execute By : Asif Abdullah	Execution date :

Step	Action	Pass/fail	comment
1	When a user click on price analysis button	pass	Price analysis method called successfully

Development Tools & Technology:

4.3 Technology:

Backend Framework : .ASP.NET Core 5.0
Frontend Framework : Angular

CSS Framework : Bootstrap, Html 5, CSS, JavaScript in this project.

4.4 Implementation Tools :

Language: C#
Database : MSSQL Server
Server: Windows Server
Other Library and Framework : Autofac, Automapper, Microsoft Identity Framework, Entity Framework Core, Serilog, Nunit, AutoMoq,

PART 7 : PROJECT SUMMARY

7.1 Limitations :

- Can't use as an desktop app or mobile app.
- User have to connect with this application by internet.
- Can’t handle massive amount user.

7.2 Obstacles & Achievements :

To walk an extraordinary way, one meets numerous obstructions and afterward they get some accomplishment. I assumed I even did it by taking assistance from my companions, Supervisor, Co-Supervisor and looking through numerous things and replies from Google. I have the certainty to complete this task without help from anyone else.

7.3 Future Scope :

* In future have plan to automate others features.
* Planning to use Machine learning for giving user better decision.
* Planning to integrate Dhaka Stock Exchange market for our country’s people.

PLAGIARISM REPORT

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