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Trading Track

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Chapter 3: Requirement Analysis

In this Chapter we will define all the requirements of our proposed system that includes functional and non- functional requirements. We also have mentioned the use cases of the system and how our system will respond to various use cases.
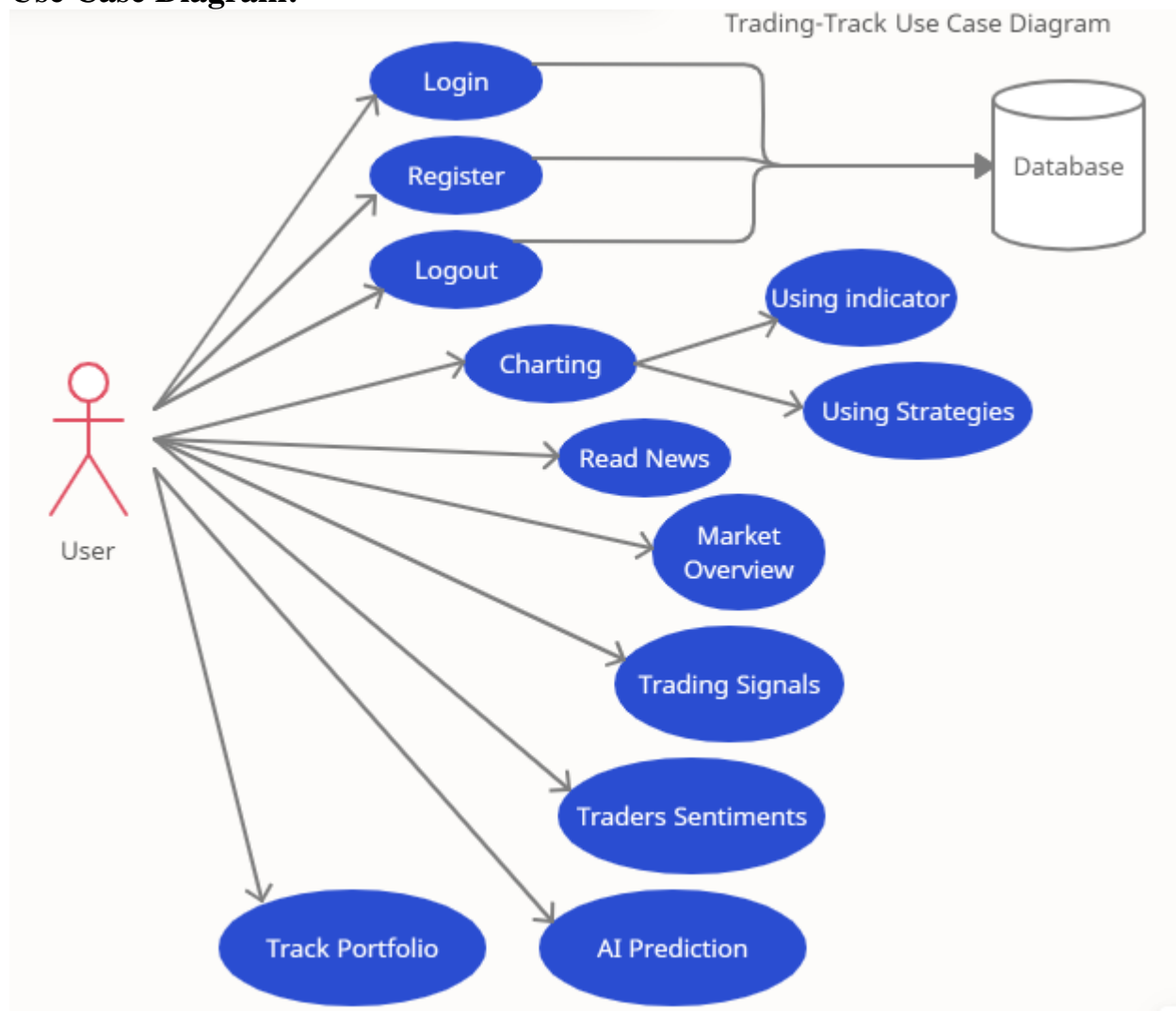
3.1 Use Cases

Use Case Diagram:

Figure 3.1

3.1. Use Case Description

Use Case ID:	ID-01
Use Case Name:	Authentication
Actors:	User, System
Description:	User will provide his credentials and authenticated by the system through database.
The rigger:	When user clicks the login button.
Preconditions:	Username and password must be provided by the user.
Log in	User will login successfully.
Normal Flow:	Credentials will be entered by users. Credentials will be authenticated from database of the system. User will be successfully logged in.
Alternative Flows:	If user is not already registered, then user will first sign up User will then provide credentials User will again be authenticated through database
Exceptions:	If user is not authenticated, error message will be appeared.
Special Requirements:	None
Assumptions:	None
Notes and Issues:	User will have only 3 attempts for login. After 3 attempts user will have to wait for 30 seconds to retry.

Use Case ID:	ID-02
Use Case Name:	Market Overview
Actors:	User, System
Description:	System will show different available currencies in the market. User will select any of the currency according to his own choice.
Trigger:	When user clicks any currency.
	Preconditions: User should be authenticated.
Preconditions:	User should be authenticated. User should have internet connection.
Post conditions:	The system will provide available currencies to the buyer.

Normal Flow:	User will first login into the web app, then he/she will select any currency according to his/her choice.
Alternative Flows:	None.
Exceptions:	If user does not select any currency from the overview, he will just be looking at the market overview.
Special Requirements:	None.
Assumptions:	None.
Notes and Issues:	If User specifically wants to look at the details of a currency, he/she must click it.

Use Case ID:	ID-03
Use Case Name:	News Flow
Actors:	User, System
Description:	System will show currency related news. User will select any of the news according to his/her own choice.
Trigger:	When User clicks on any news.
Preconditions:	User should be authenticated. User should have internet connection.
Post conditions:	The system will provide flow of news.
Normal Flow:	User will first login into the web app, then he/she will select any news according to his/her own choice.
Alternative Flows:	None
Exceptions:	If user does not select any news from the overview, he will just be looking at the News Flow.

Special Requirements:	None
Assumptions:	None
Notes and Issues:	If User specifically wants to look at the details of any news, he/she must click it.

Use Case ID:	ID-04
Use Case Name:	Sentimental Analysis
Actors:	Users, System
Description:	A user who is looking for professional help from a trading expert can get help from the Sentimental Analysis section. Trading Experts leave their reviews on whether a specific currency should be bought or not.
Trigger:	When User clicks the Sentimental Analysis Section.
Preconditions:	User should be authenticated. User should have internet connection.
Post conditions:	The user will be able to look at the reviews of trading experts on any currency in the form of Buy, Sell and Neutral signals.
Normal Flow:	User will first login into the web app, and then he will select the sentimental analysis section. This section will show the signals of trading experts in the form of Buy, Sell and Neutral signals to help the user take a decision for a trade or general news.
Alternative Flows:	None
Exceptions:	If User does not select any specific currency in the Sentimental Analysis section, he/she will just be continuously looking at the signals from trading experts on a specific currency.
Special Requirements:	None
Assumptions:	None
Notes and Issues:	The User should select a specific currency of his/her own choice to look at the Sentimental Analysis of that currency.

Use Case ID:	ID-05
Use Case Name:	Technical Analysis
Actors:	Users, System
Description:	User can look at the Technical Analysis of any currency of their own choice. In this section, an analysis is done using charting patterns and indications to give a prediction to help user buy, sell or stay humble about that currency at that time.
Trigger:	When Users clicks the Technical Analysis Section.
Preconditions:	User should be authenticated. User should have internet connection.
Post conditions:	The user will be able to look at Technical analysis on any currency in the form of Buy, Sell and Neutral signals.
Normal Flow:	User will first login into the web app, and then he will select the technical analysis section. This section will show the technical analysis of currencies in the form of Buy, Sell and Neutral signals to help the user take a decision for a trade or general news.
Alternative Flows:	None
Exceptions:	If User does not select any specific currency in the Technical Analysis section, he/she will just be continuously looking at the technical analysis on a specific currency.
Special Requirements:	None
Assumptions:	None
Notes and Issues:	The User should select a specific currency of his/her own choice to look at the Technical Analysis of that currency.

Use Case ID:	ID-06
Use Case Name:	AI Prediction
Actors:	User, System
Description:	User can see the Opening Prediction of currencies and check whether they are high or low. AI Prediction uses historical data to predict it.

Trigger:	When User clicks the AI Prediction section.
Preconditions:	User should be authenticated.
	User should have internet connection.
Post conditions:	The User will be able to look at the opening prediction of any currency of his/her own choice.
Normal Flow:	User will first login into the web app, click the AI Prediction section. Look at the opening prediction of any currency of his/her own choice.
Alternative Flows:	None
Exceptions:	If user does not select any currency of his/her own choice, they will keep looking at the same opening predictions about the same currency.
Special Requirements:	None
Assumptions:	None
Notes and Issues:	The user should select a currency of his/her own choice to see the opening prediction about that currency.

Functional requirements
The system allows user to search the currency pairs
The system allows user to select a specific currency pair.
The system allows user to register himself.
The system allows user to keep track of his trades(portfolio).
The system allows user to browse the charts
The system will use AI techniques and show prediction of stocks to the user
The user will be able to share feedback

Non-Functional Requirements
The system will be able to handle the concurrent requests from different users.
The system will provide confidentiality for user data.
The system will be stable and reliable enough to handle the exceptions.
The system will be available for 24/7 of the time to handle the concurrent request of the user.
The system will be efficient enough to handle the concurrent request to the user.
Interface and the system itself should be buyer friendly so that the product seeker will feel it easy to use.