

Crypto/Stock Market Advisor Scenario #2

Group 2 - Anjali Viswan, Nimrah Ahmed, Minahil Rahimullah, Yusuf Ghani

The ***Crypto/Stock Market Advisor*** Application is designed to help users discover stocks and cryptocurrencies that match their investment preferences, read relevant financial news, and engage with a community of fellow investors.

This first scenario describes what happens when a user logs in, sets their preferences, and receives personalized recommendations. This release focuses on implementing core preference selection and user feed recommendation generation/presentation features, driven by the underlying user database and external market data API.

Scenario: “A Personalized Recommended Feed based on User Preferences”

A user named *Jane* starts by launching the Crypto/Stock Market Advisor Application by opening the executable program (either desktop or web interface).

Upon launch the system displays a welcome page prompting Jane to log-in or register. Since this is *not* her first time using the app, she selects **Log-In**. The system requests the user to enter her username and password. Jane enters her username and password such as “*Jane_invests*” and “*securePassword700*” as a string and clicks the **Log-In** submission button. The system verifies the credentials’ existence against the database on the back end and logs her dashboard page.

The user Jane is prompted to see either their crypto page or their stock page. On the main page, the system offers navigation options: **Home**, **Settings**, **Articles**, and **Forums**. Since Jane currently has little to no preferences yet, the **Home** page displays a message prompting her to set investment preferences to receive recommendations.

The user Jane navigates to **Settings > Preferences**. The preferences screen allows selection of investment type (Day Trade / Long-Term) and up to three industries. Say Jane selects **Long-Term Investments** and the industries *Technology, Healthcare, and Energy*. She then clicks **Save Changes**. These entries are recorded in the user Jane’s **UserPreferences** table of the system database.

Once preferences are saved, the application automatically schedules Jane to receive new recommendations in the next 24-hour cycle. However, she can immediately view a simulated set of top recommendations for demonstration purposes. The system retrieves sample market data from the external API, applies the recommendation algorithm, and stores results in the *Recommendations* table.

Jane returns to the **Home** page. The system pulls a subset of recommendations from the database that match Jane's selected preferences. For example, she may see entries such as:

- AAPL - Apple Inc. (Long-Term Technology)
- PFE - Pfizer Inc. (Long-Term Healthcare)
- XOM - ExxonMobil Corp. (Long-Term Energy)

The system offers Jane the option to refresh her recommendations once new data becomes available (every 24 hours). She can also navigate to **Articles** to view news updates on stocks/crypto that are in her field or in her investments portfolio including the article's title, cover image and introduction/summary. Alternatively, she can click **Forums** to explore public user discussion boards that are new, followed or recommended based on her investment portfolio's preferences.

When Jane logs out, the system stores her session data and ensures that preferences remain saved for her future sessions.

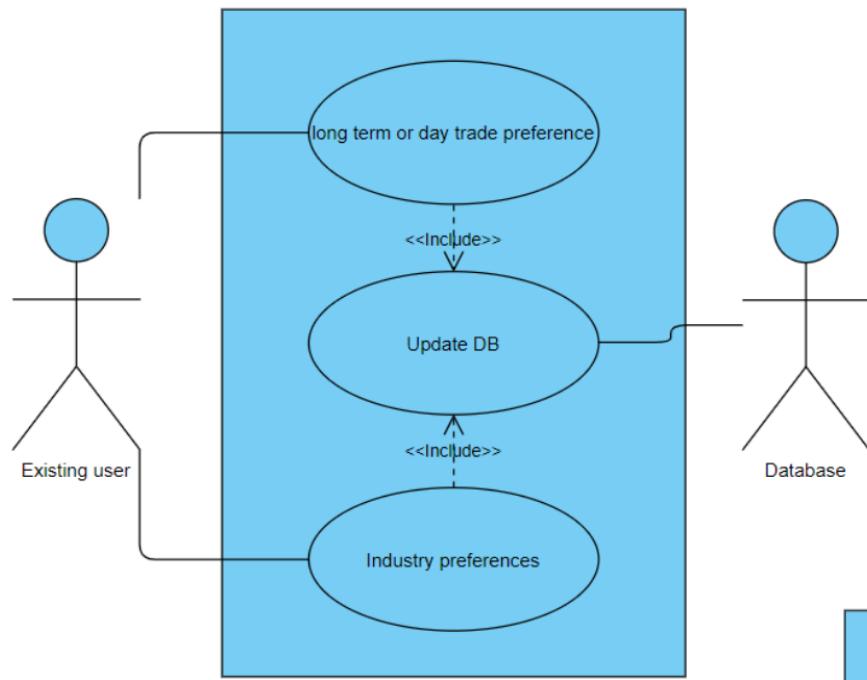


Figure 4.3 - Generate recommendations scenario diagram

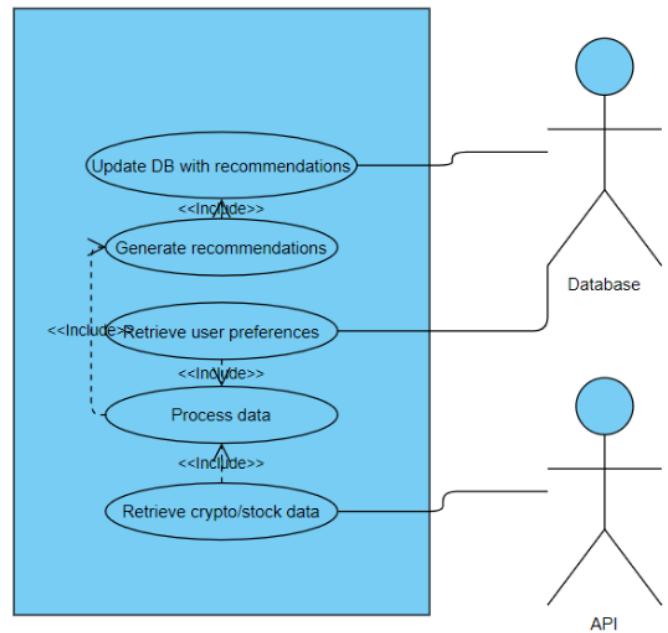


Image Sources : The Scope of the Product,
group15FinalDevelopmentReport
Fall 2021
Maddy Wikstrom, Moody Samkary, Ting-Shao Lee

Figure 4.4 - Display recommendations scenario diagram