

Sprint 7: Stock Market Analytics and Recommendation



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This Sprint Objectives

- Provide sector-based recommendation for investment
- Add Package limitations to users
- Adding/Deleting stocks in Portfolio

Risks & Challenges

- Grabbing data for last percent change for each sector, alpha vantage doesn't provide that for us, only for particular stocks it does but not for a sector as whole
- Being able to properly add stocks to portfolio

Mitigation Plan

- To help mitigate grabbing data from a certain sector as a whole, I was able to web scrape data and plug the numbers into our database to display to the user.
- Moving forward by having another member help implement the adding stocks to the portfolio

Use Case - Update Package

- Update Package:

- **Preconditions:** User requires an activated account, already added package
- **Success Guarantee (Postconditions):** User updates their account to a new chosen package

- **Main Success Scenario:**

1. User logs into an activated account
2. User reviews and selects from one of the other packages offered: starter, deluxe, or ultimate.
3. User gets a confirmation popup to provide description of what the package offers and to confirm their decision.
4. User is redirected to the portfolio page
5. User gets notice that the package was added to their account
6. Account is limited to however many tickers the package allows

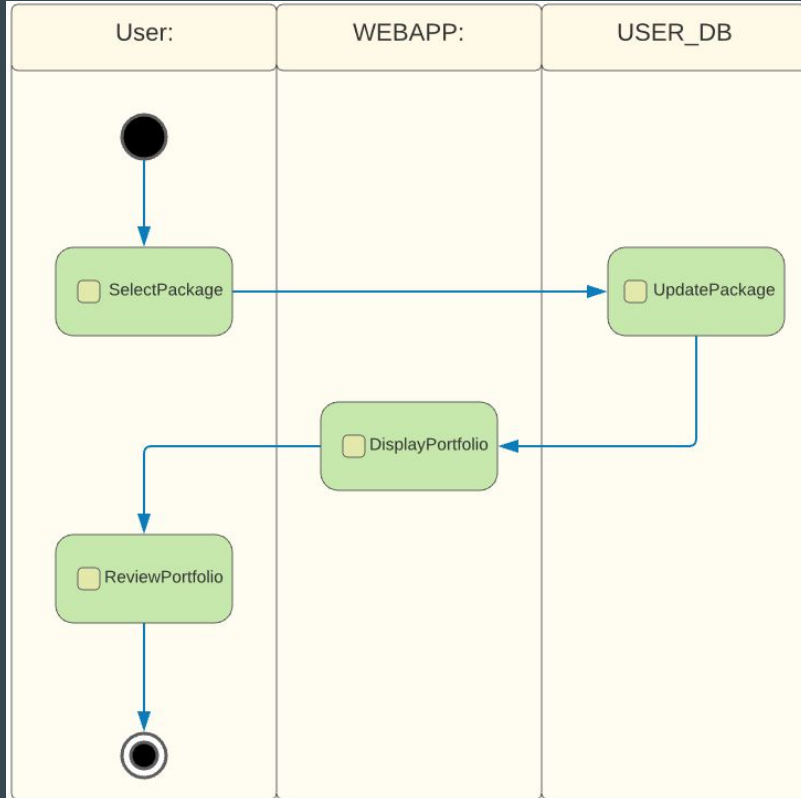
- **Extensions:**

1. Page not loaded properly
2. Package failed to add to account

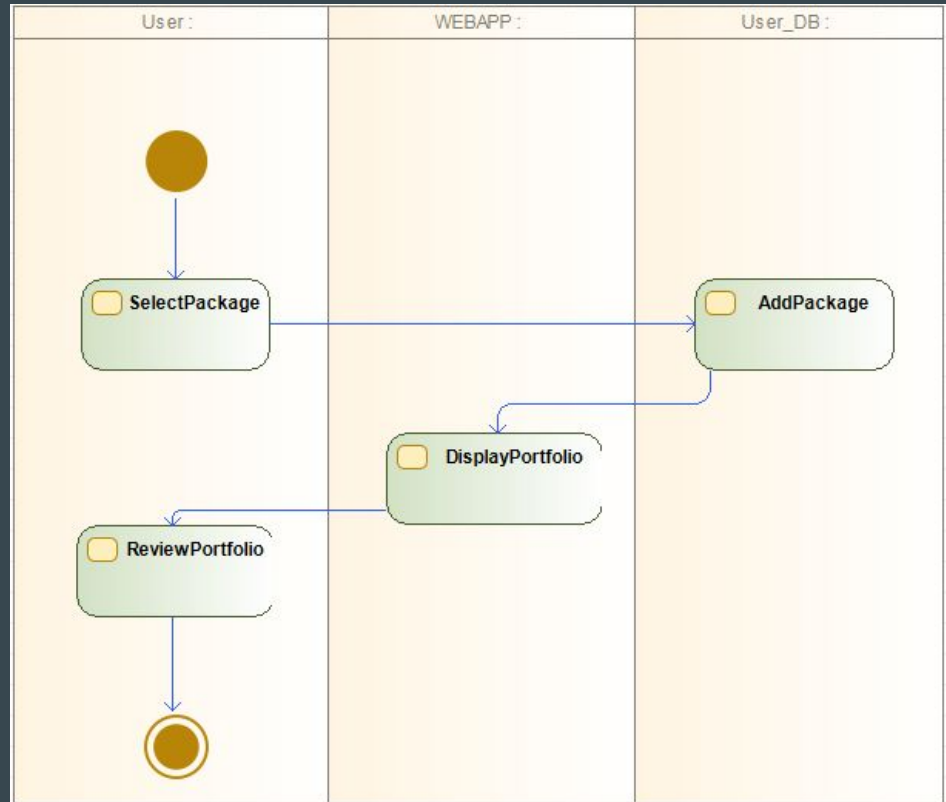


Activity Diagrams

Update Package

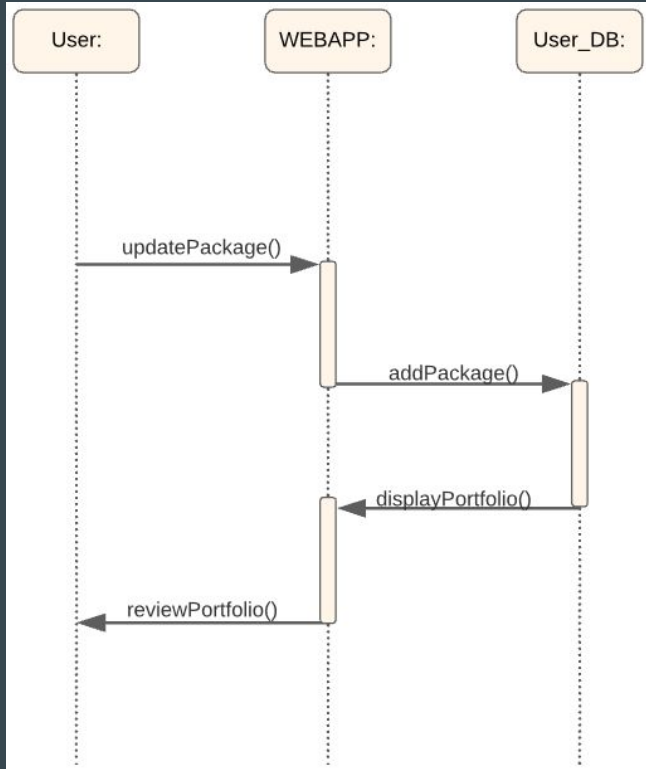


Add Package

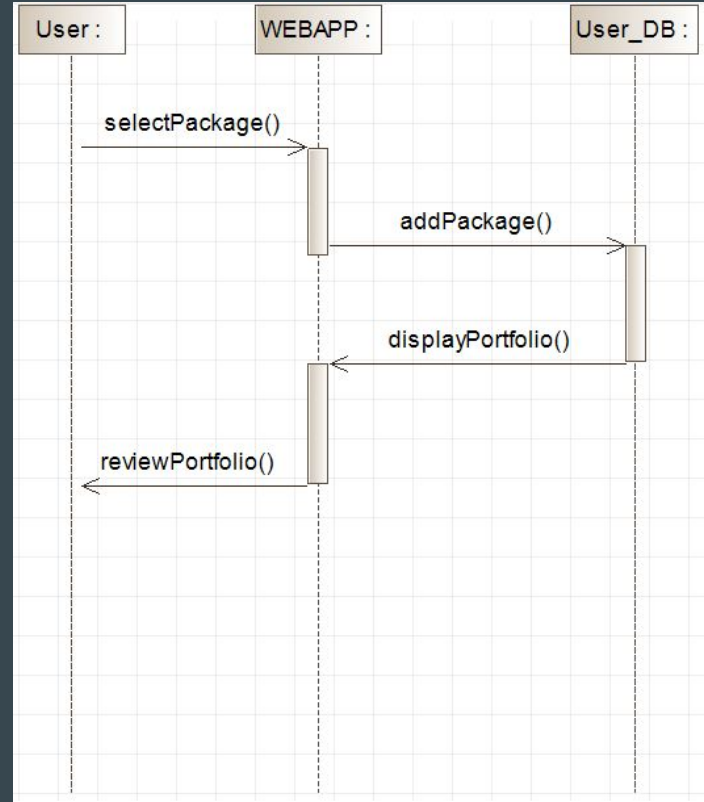


Sequence Diagrams

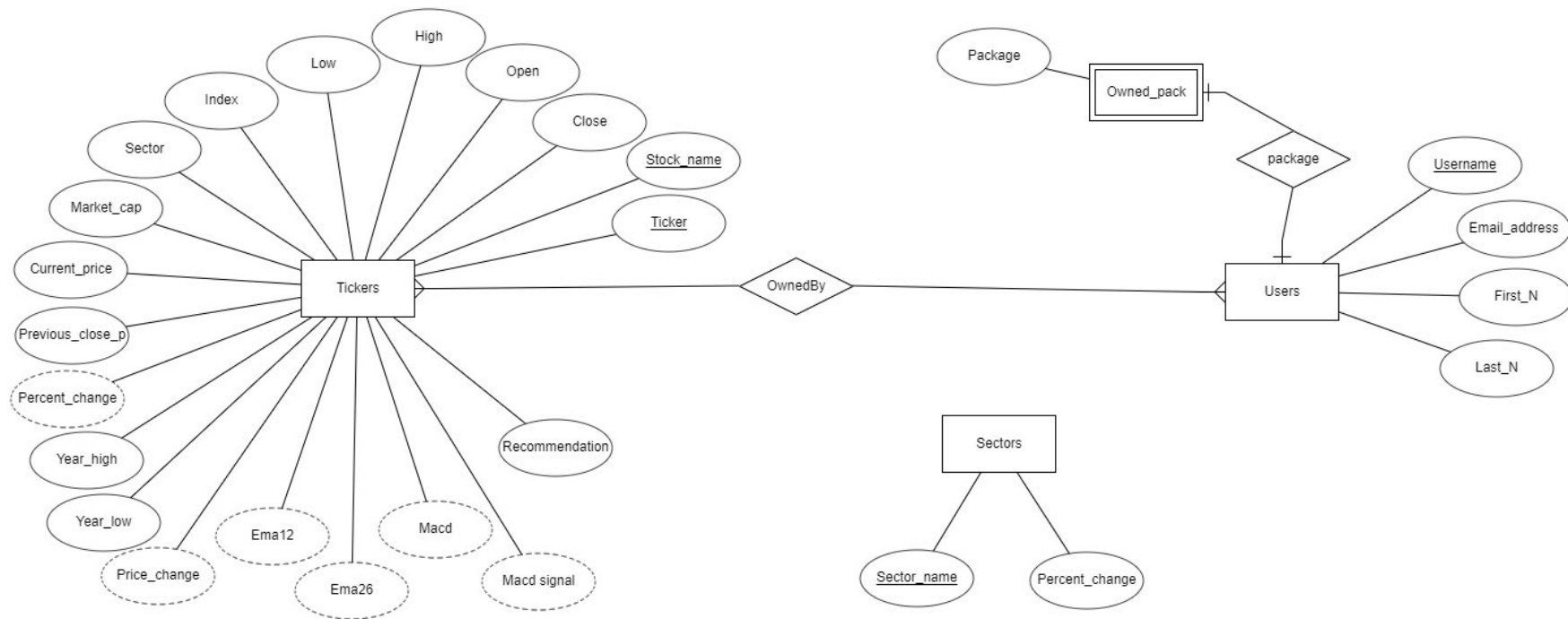
Update Package



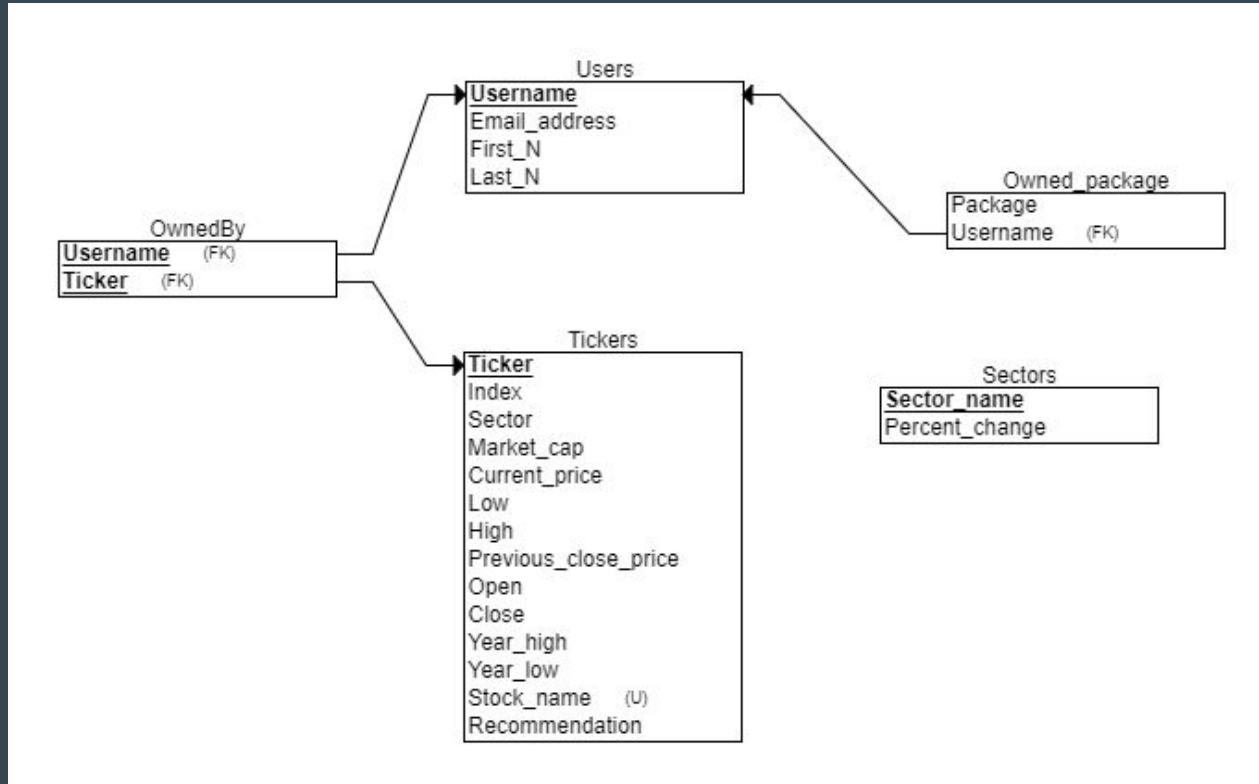
Add Package



Entity Relationship Diagram



Relationship Schema



Next Sprint Objectives

- Roll over adding/deleting stocks from portfolio to have package limitation working with it
- Have analytics on historic return functioning.
- Machine learning for our recommendation system
- Test adding/deleting stocks from portfolio along with package limitation testing.

Mockup/Design

- Historic return if a user used our recommendation system for this particular stock for 1 month and 3 months



Demo