

\$YRUP

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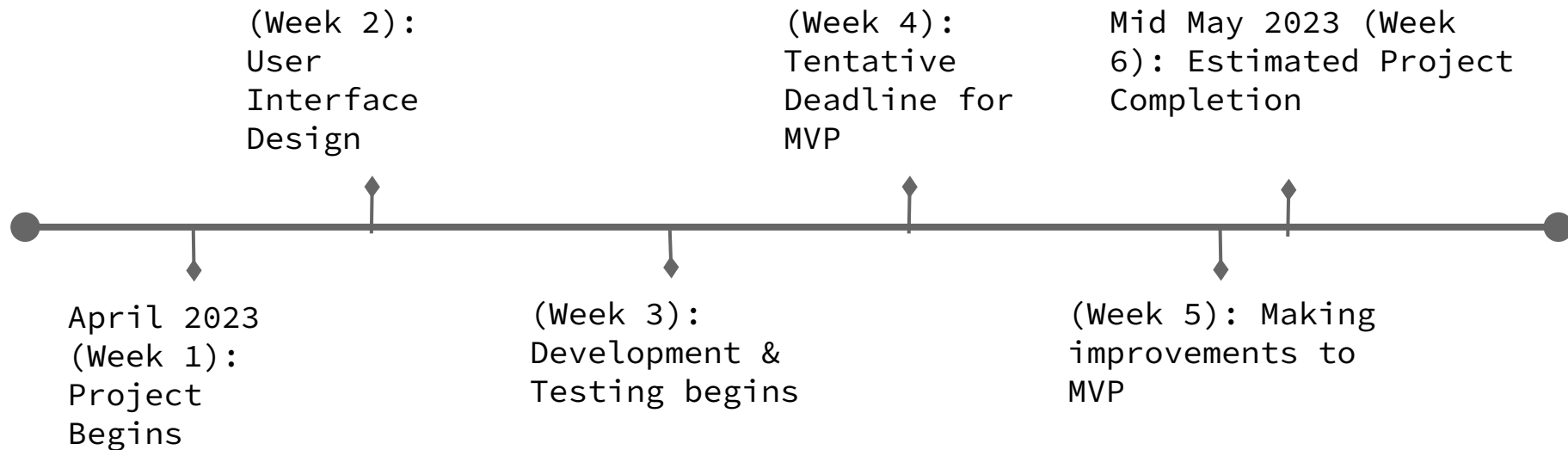
OBJECTIVE

To design a price tracking website that will allow shoppers to save money while making online purchases. We will pull price history data from several online retailers for various products to ensure our users can make the most informed decision before spending their hard earned money.

COST ESTIMATION

- Function Point: 714.87 FP => 36 person-weeks, 6 weeks
- Estimated Cost of Hardware:
 - Designed to accommodate target user base of 2000 users
 - Domain.Com's Ultra Plan costs \$13.75/month
- Estimated Cost of Software:
 - Will be built from the ground up using frameworks such as React
 - Optional Software - Premium Slack account for collaboration
- Estimated Cost of Personnel: \$104,460
 - Average Salary for Front-end Developer: \$127,483 (\$61/hour)
 - Average Salary for Back-end Developer: \$131,789 (\$64/hour)

PROJECT TIMELINE



FUNCTIONAL REQUIREMENTS

1. API calls to get product information that we update once a day and track for a set time (ex: a year).
2. A search bar where the user can type in an item and click on it to go to its page
3. A query function to find the cost of the item from all the different shopping websites
4. Have functionality to graph a time vs price graph visual for users to view
5. Functionality to register/login in and save user information
6. Allow users to bookmark products to their account
7. Display bookmarked items on the user's homepage

NON-FUNCTIONAL REQUIREMENTS

Usability requirement: Should be able to be used on desktop and mobile.

Performance requirement: All requests must be generated in 2 seconds or less.

Space requirement: No data should be stored on the user's computer.

Environmental requirement: The computer hosting the application's server must be located in a dust free environment per American dust laws about server maintenance.

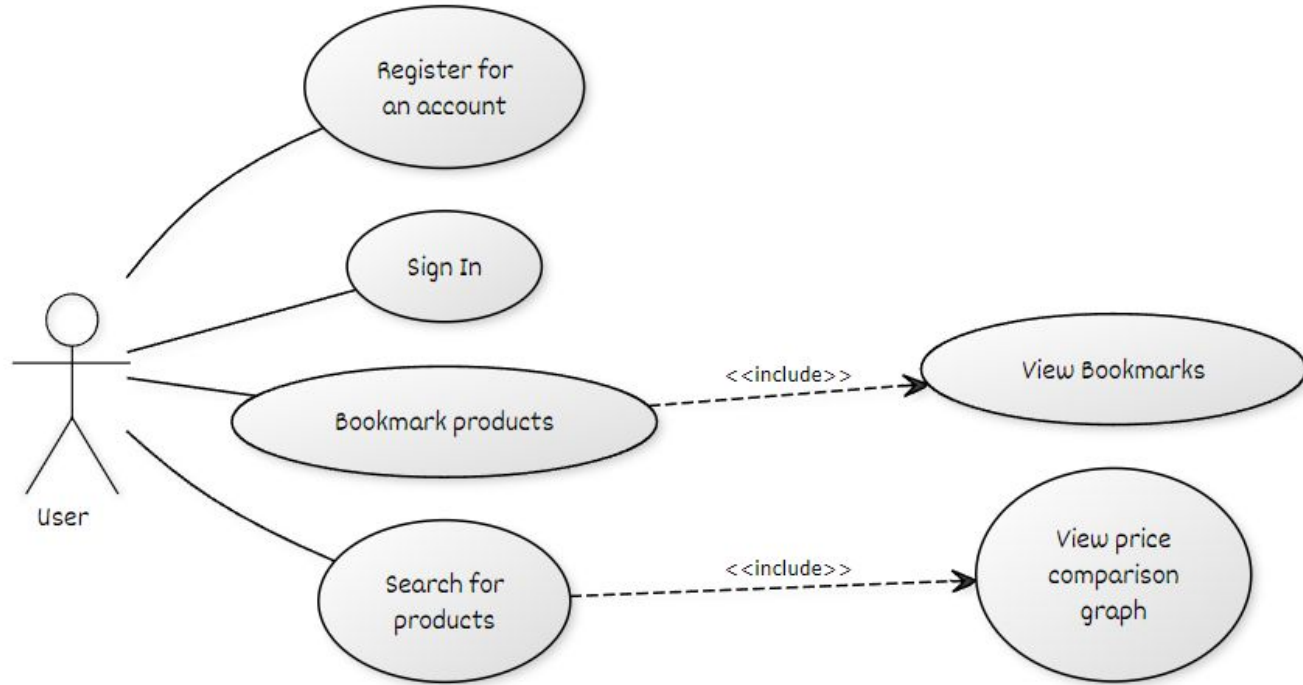
Operational requirement: The application must be able to gather price history once a day and track it for a year.

Development requirement: The application must implement object-oriented programming practices to ensure that price data calculations are abstracted from the user.

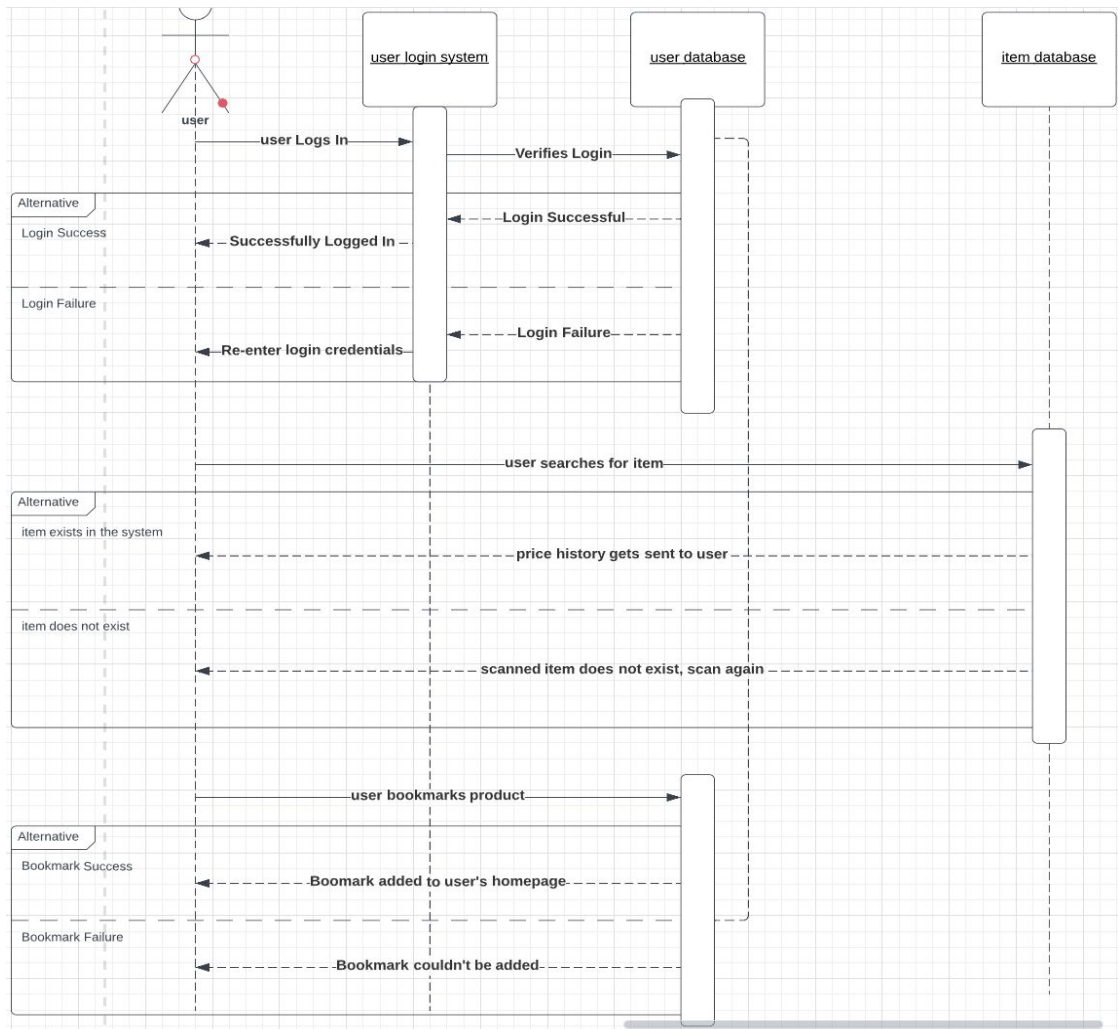
Accounting requirement: The application's shareholders get a small commission for products purchased through the application.

Safety requirement: All user and cite data should be encrypted.

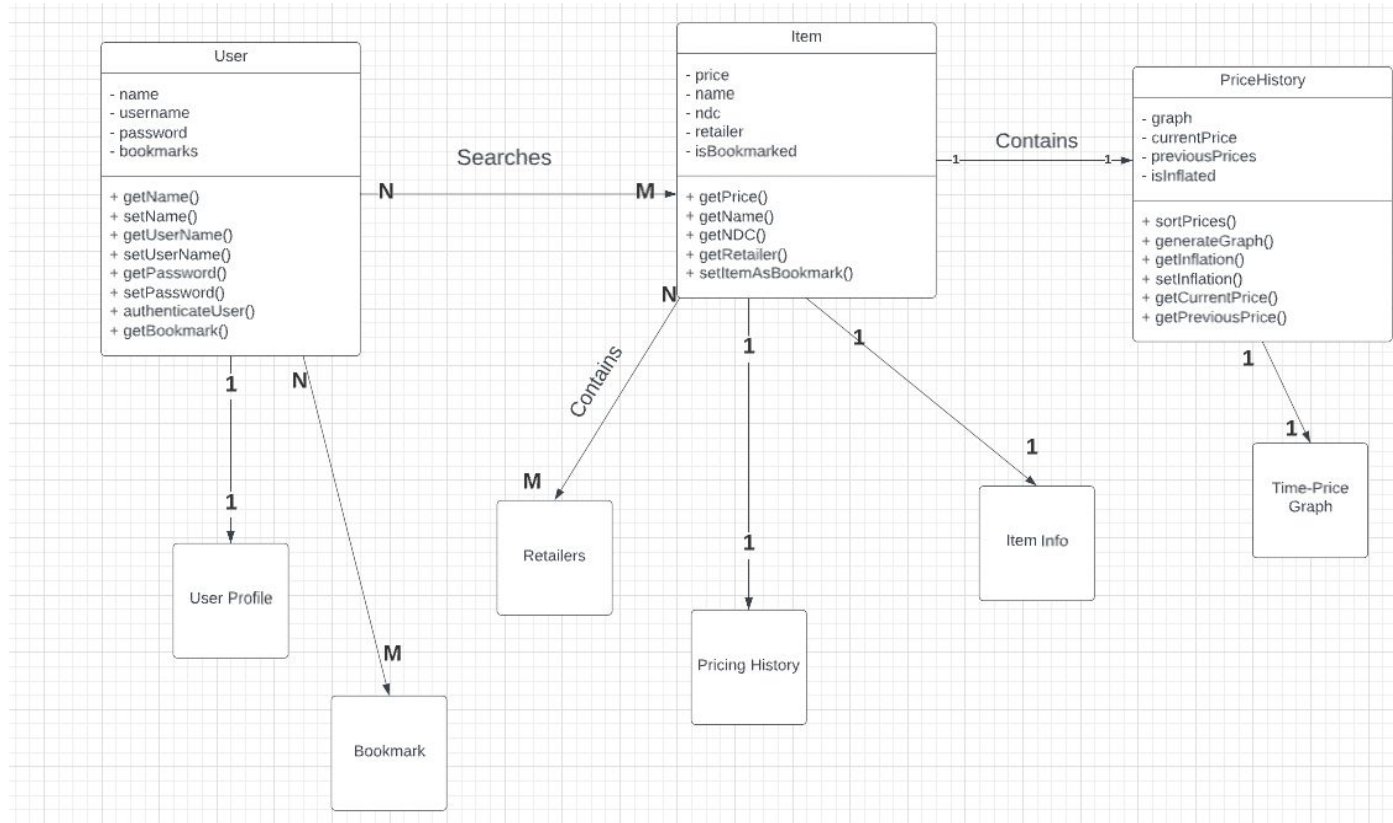
USE CASE DIAGRAM



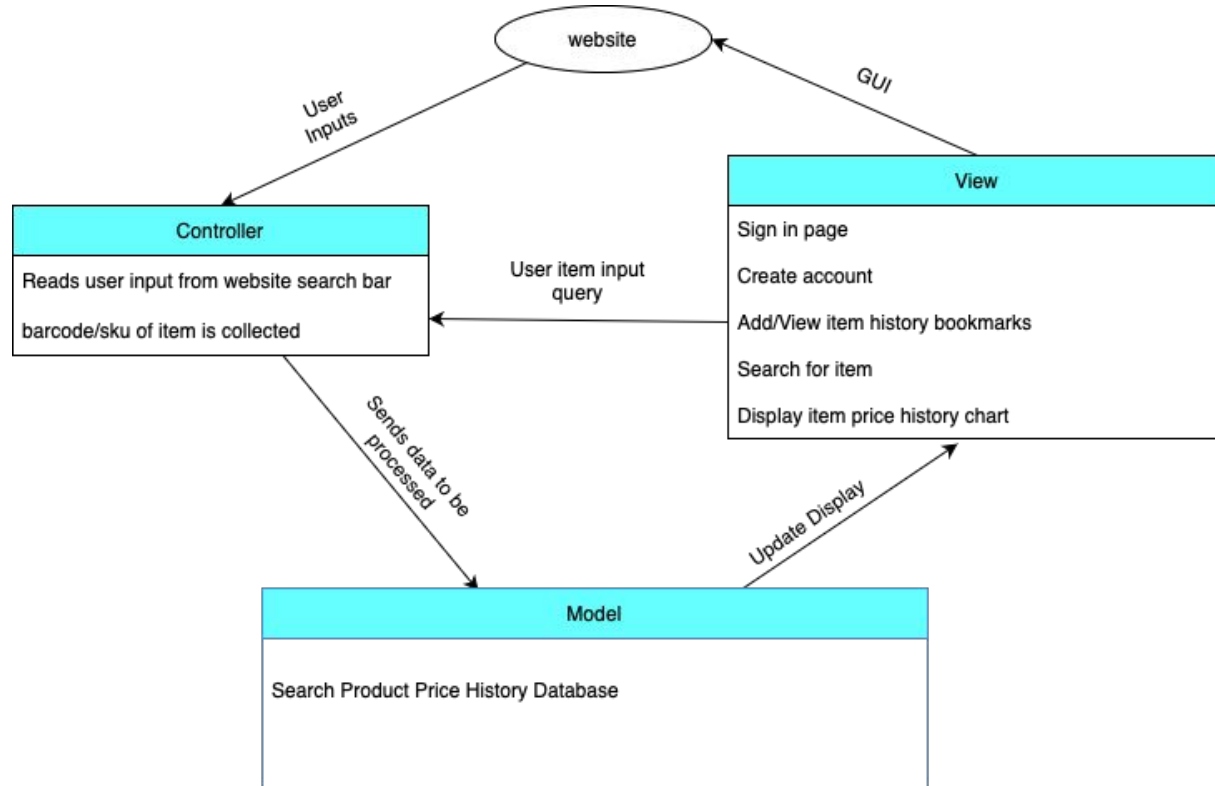
SEQUENCE DIAGRAM



CLASS DIAGRAM



MODEL VIEW CONTROLLER DESIGN



DEMO OF USER INTERFACE DESIGN

[Live Demo Link](#)

