



Politi Pal

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Design Specification

CECS 491B Sec 04 Fall 2023

May 11, 2024

Version 3.0



Version	Date
Version 1	October 26th, 2023
Version 2	March 16th, 2024

Summary of Changes		
Table of Contents	Changed Page #s	Page #3
Activity Diagram #4	Took off the "real-time" of Use Case #3	Page #7

Version	Date
Version 3	May 11, 2024

Summary of Changes
No Changes

Deletions = ~~Grey with line through Text~~

Additions = Green Text

Changes = Red Text

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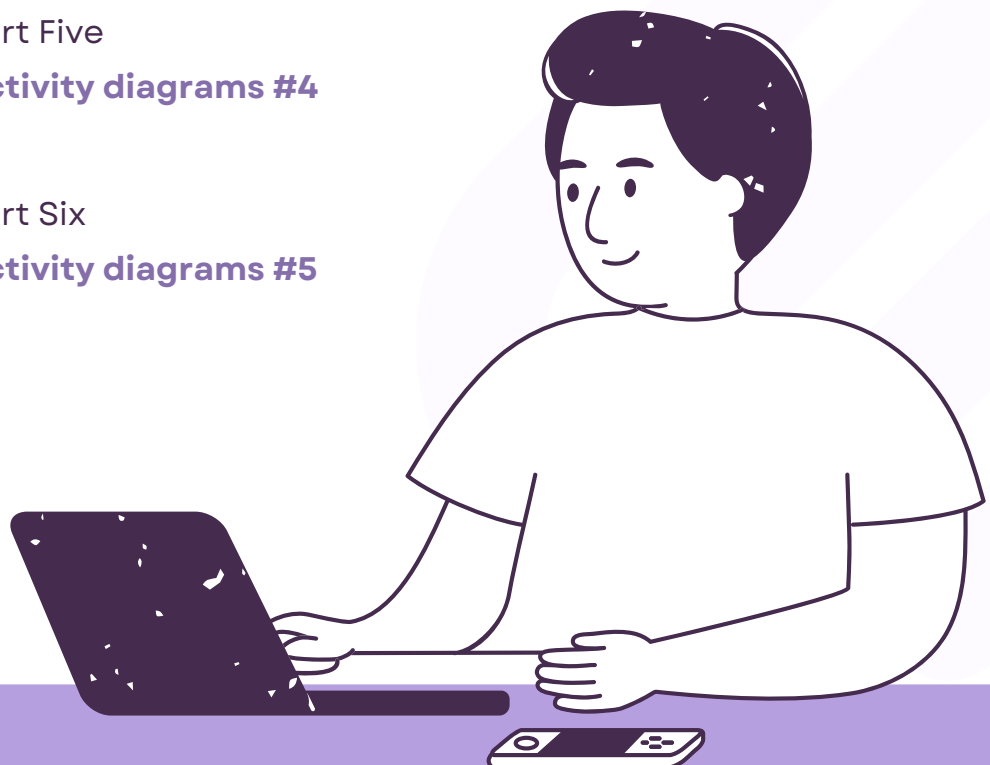
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Abstract

This document describes and illustrates the architecture and software decisions for the Political Transparency mobile app. The purpose of this document is to give the developers, designers, and quality assurance contributors guidance and context on the design goals of the application. This software at full capacity has the potential to encapsulate large amounts of data, so it is crucial to handle the architecture and information storage well-designed and documented. Developers will be working hard on maintaining the integrity and functionality of the app while research teams add information and monitor user contributions.

The behavior specification section aims to give more detail on each feature and the intricacies of its design and functionality through visual representations. This will include the following 5 features; Contributing Representative Information, search function, opinion sharing, finance monitoring, and contributing to bill data.

The architecture specifications section will include visual guidelines for our design goals of the class diagram and the site map. The class diagram will follow standard UML guidelines and allow us to have an official representation of our database design. Lastly, the site map will aim to set a concrete overview of the navigation workflows of the app.



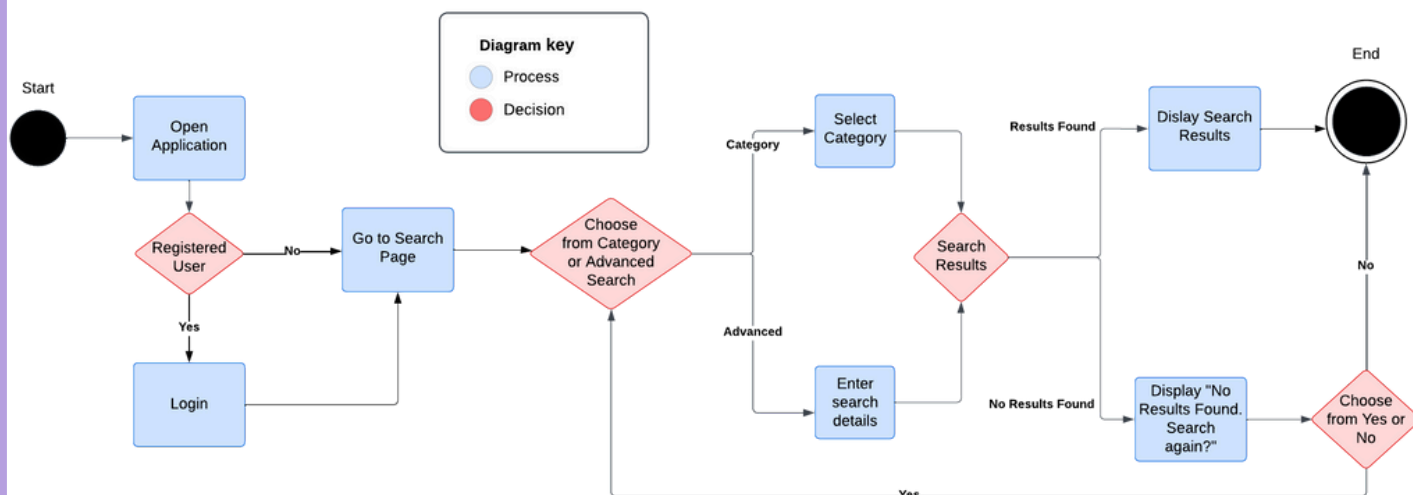
Behavior Specifications

Feature #1: Users can use the search function to search for bills or representatives.

Registered and non-registered users can log into their accounts and interact with the search page in order to look up bills or representatives in the application. The process flow is as follows. After the login process, a user can navigate to the search page where they can either choose to filter by category or do an advanced search. If they filter by category, they will then be led to search results of bills or representatives within that category. If they choose to do the advanced search, the user can enter their search details. Both decisions will lead to the search results. If search results are found, the search function will display the search results, leading to the end of the feature. If no results are found, the user can choose to end the search or redo the search again from the filter decision.

Diagram

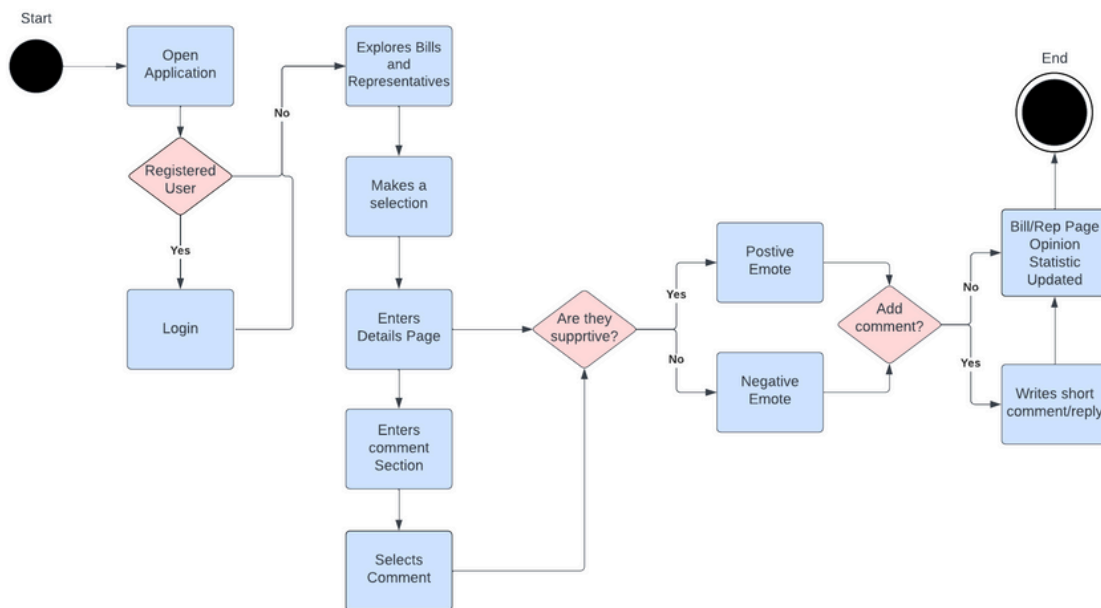
Figure 1 - Users can use the search function to search for bills or representatives



Feature #2: Users can share quick opinions with emotes & comments

Registered and non-registered users can log into their accounts and interact with information adding comments and opinion data. The process flow is as follows. After the login process, a user can navigate to a bill or representative detail page, and if they wish there is an option to react to either the page or an existing comment. This option would display a small reaction bar at the bottom of each entity. A user can choose to simply click a reaction and add a comment or simply just emote and be done. Once an opinion is shared, our database records it and we have more opinion data on each interaction.

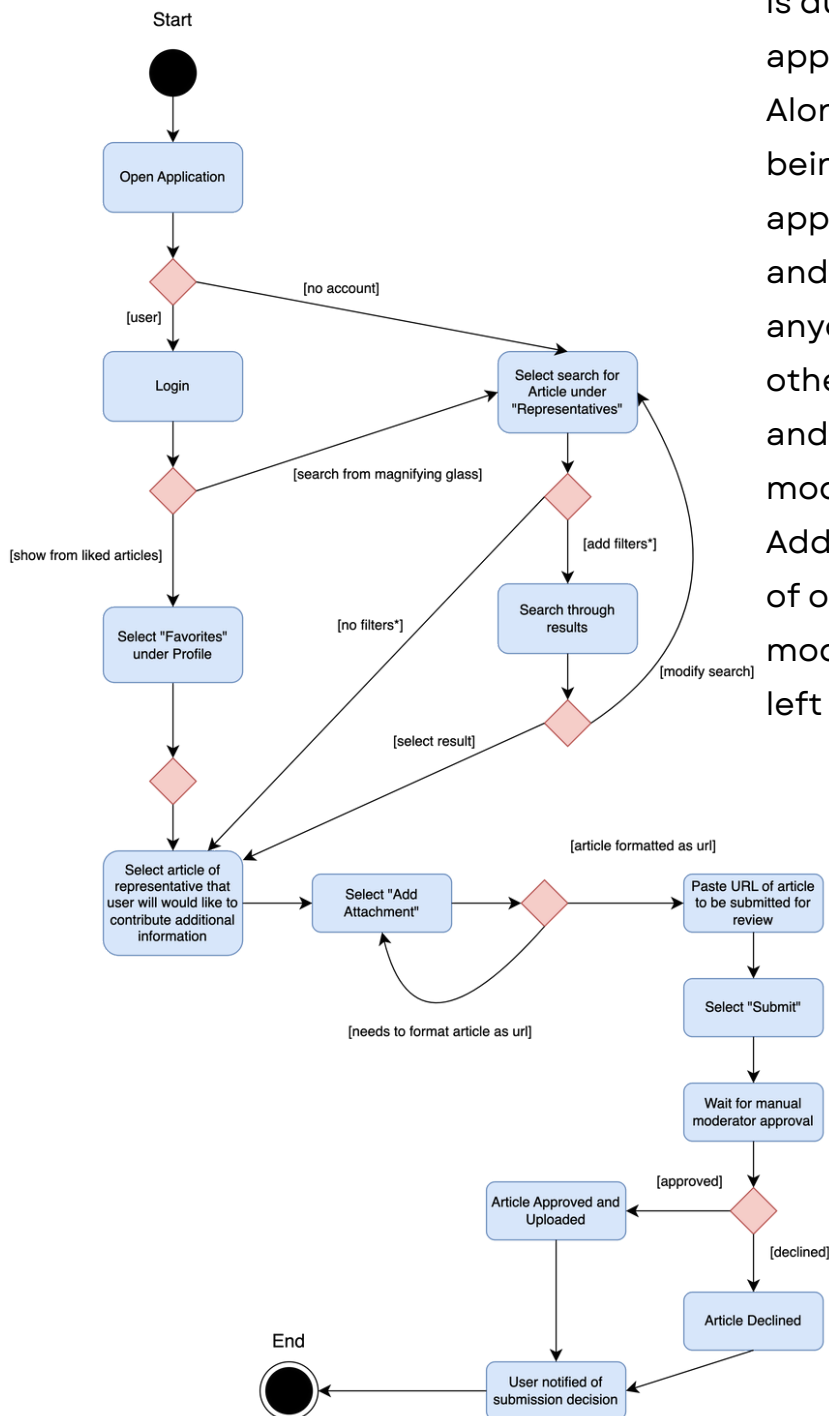
Diagram



Activity 3: Users can contribute to representative information

DIAGRAM

Figure 3. Users can contribute to representative information



The reason for creating a simplistic app is due to the intent of making the application as accessible as possible. Along with the design of the application being minimal, we are creating an application that is open to feedback and allow user contributions from anyone. However, in order to follow our other goals of maintaining accuracy and credibility, we will require moderation to be implemented. Additionally, creating an environment of open collaboration requires moderation since biases may form if left unfiltered.

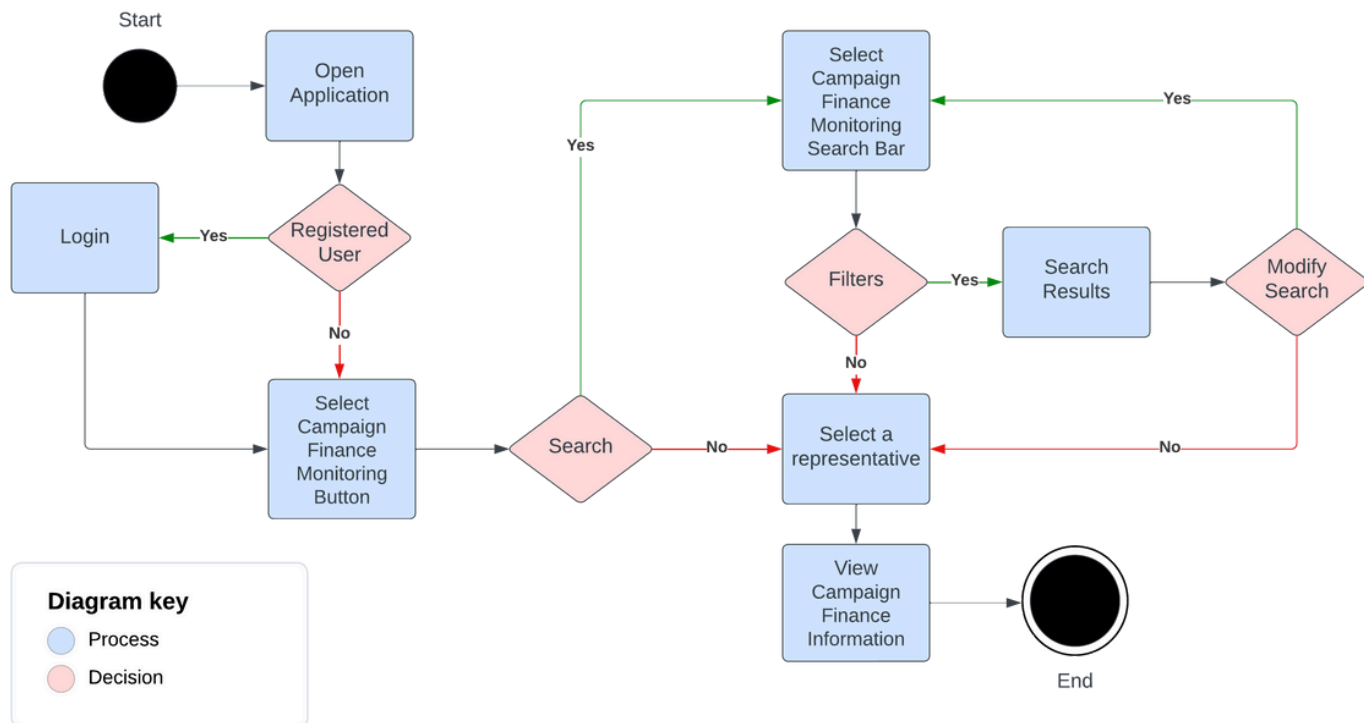
*Filters may include: published date, political leaning, and district

Activity 4: Campaign Finance Monitoring

Registered and non-registered users can access campaign finance monitoring. Users should select the "Campaign Finance Monitoring" button in the menu, where they will have the option to search for a specific representative or choose from representatives already displayed. If the user decides to search for a representative, they can use filters for a more advanced search. Based on the results, they can either search again or select a representative from the presented options. Once the user selects a representative, they can view the representative's campaign finance information. Refer to Figure 4 below.

Diagram

Figure 4. Campaign Finance Monitoring

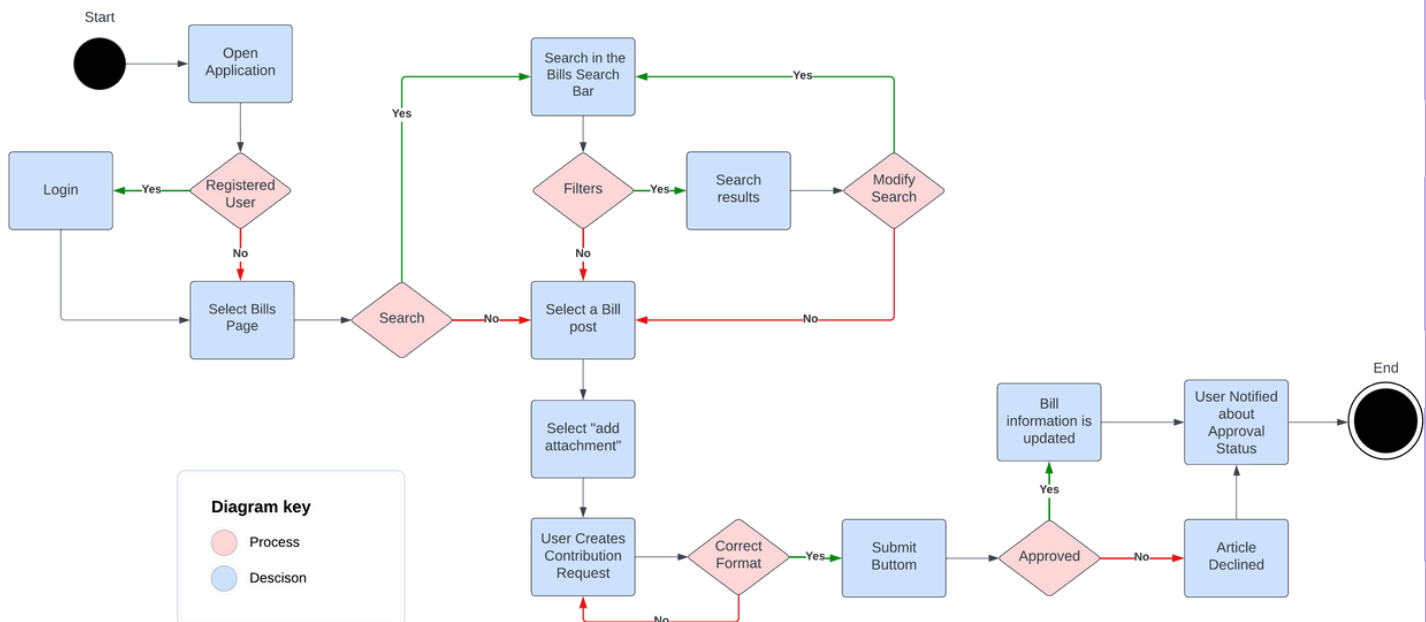


Activity 5: Users' contribution to bill data

Registered and non-registered users can submit a request to contribute information to a bill post on the app. The process begins with the user opening the app and registered users logging in. Next, users need to select the "Bills Information" button in the menu. The bills page will automatically display user posts on the newly added bills, giving the user the option to choose a bill post or search for a bill. If the user chooses to search, they also have the option to use filters for a more advanced search. Based on the results, they can search again or select a bill post from the results. Once the user selects a bill post, they need to choose the "Add Attachments" button to submit a request to contribute information. If the request is correctly formatted, it can be submitted. If not, the user will need to retry. The user must then wait for the information to be approved. If approved, the bill information will be updated; if not, the article will be declined. The user will be notified about the status of the request. Refer to Figure 5 below.

Diagram

Figure 5. Users' contribution to bill data

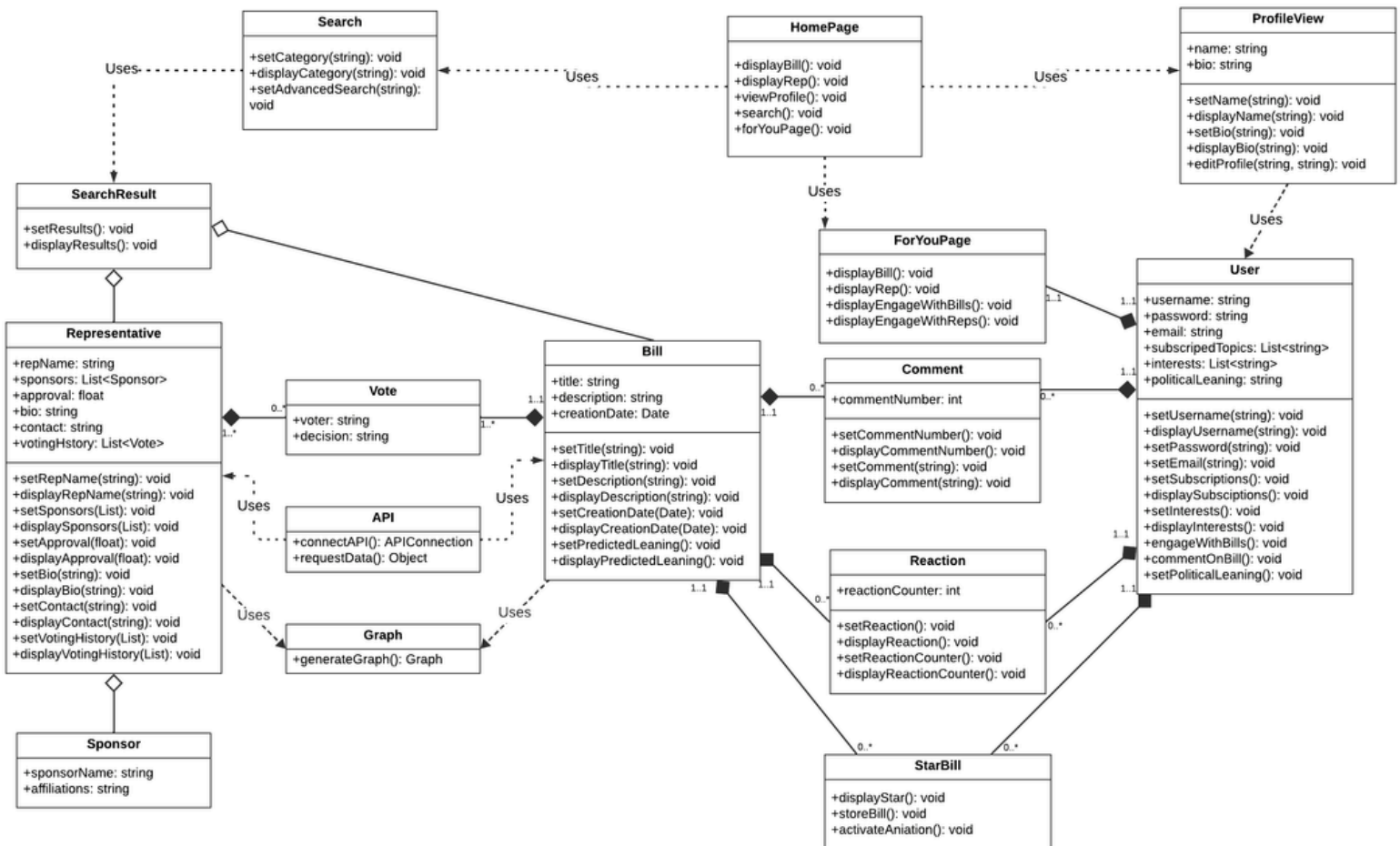


Architecture Specifications

Class Diagram

Below is the tentative UML Class Diagram for the Political Transparency Application. It illustrates the classes needed to implement the program and details the relationships between them. The application begins in the home page where users may choose to navigate to the Search page or Profile page. The home page also shows off bills and representatives in descending chronological order for users without accounts. Users who are logged in may also see the For You page, which is a customizable version of the home page tailored to the user's interests and subscriptions.

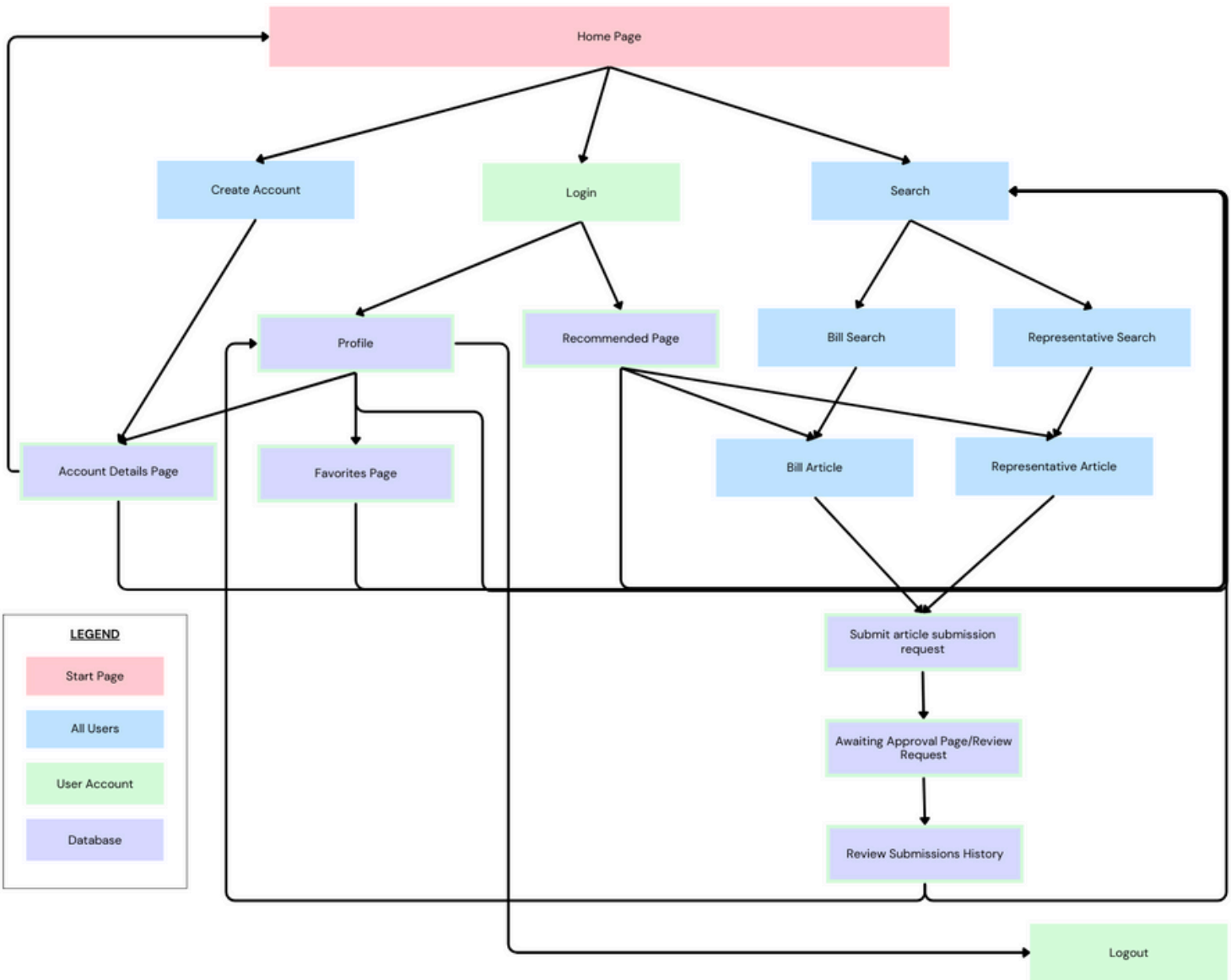
Figure 6 -UML Class Diagram depicting class relationships, associations, and multiplicities



Application Map

The diagram below depicts the structure and flow between different pages within the proposed application. As one of our goals included a simplistic and intuitive design, we placed an emphasis on minimal pages. The limited pages will help reduce user decision fatigue and allow better retention of application sequence. The sections listed in the diagram include start page, user account specific pages, all user pages, and pages that reference a database.

DIAGRAM





Political Transparency App

Question & Information



N/A



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None