

Design Document

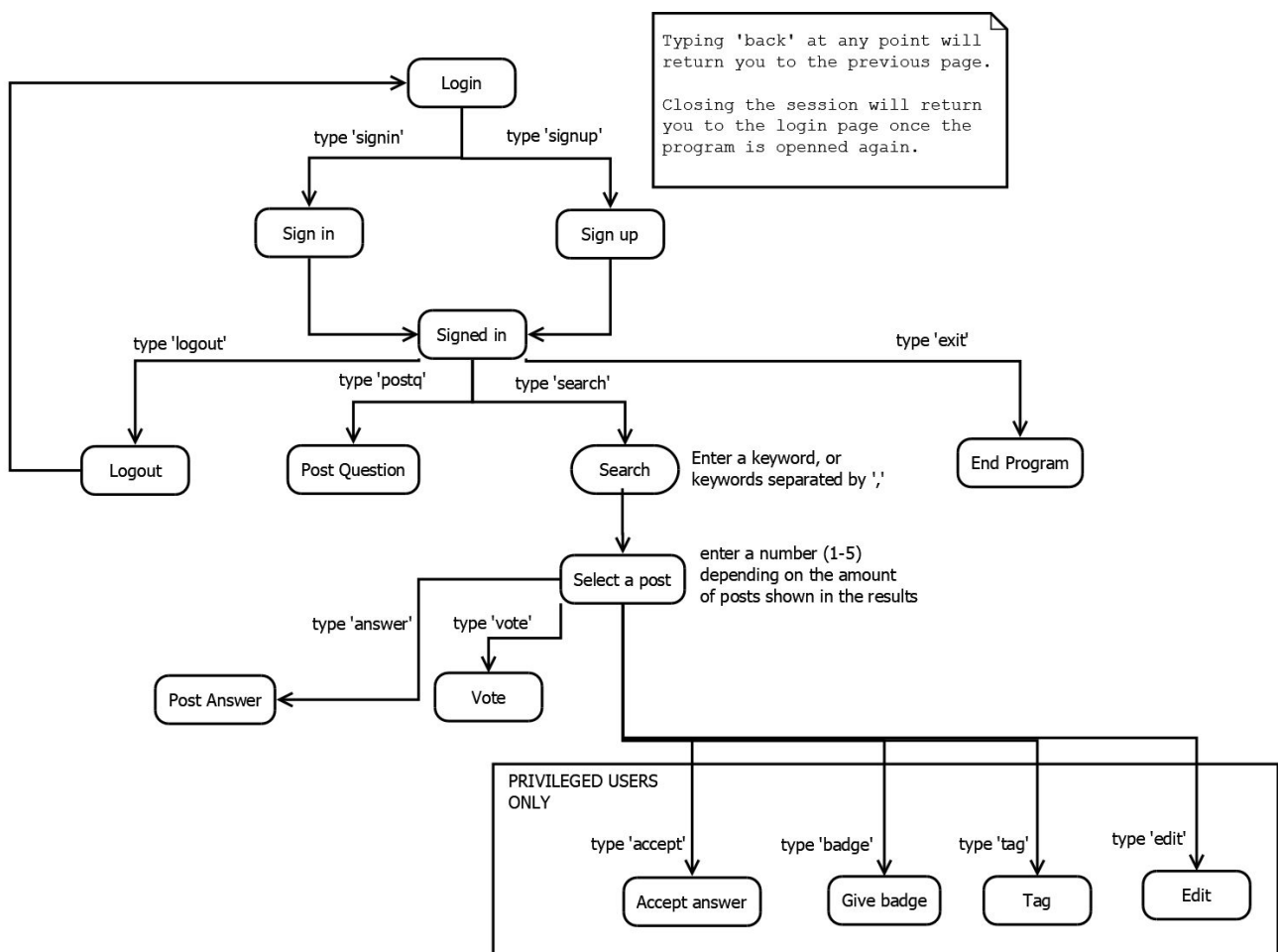
zt2, chang15, htrinh1

I. General overview of system with a small user guide

When first calling the program in the commandline, provide the .db file to use.

Eg. program.py data.db

This program allows users to interact with each other using posts. A user can log into their account, or create an account if they don't already have one, and post questions or answers to other users' questions. The user is able to search for posts by entering keyword(s), and vote on any posts selected. Privileged users will have the added ability to mark an answer to a question post as the 'accepted answer', give badges, add tags to posts, and edit posts (title and body only). After each action, other than the search and select post action, the user will be returned to the main page where they can choose to logout, exit, post a question or search for more posts. Typing 'back' at any point will allow the user to return to the previous page.



2. Detailed design of the software

a. Responsibility and interface of each primary function/class

- i. class User
Create a user object of the current user logged in
Allow user to perform different actions
- ii. class Post
Create post object and classify actions relevant to post
- iii. function sign_in(), sign_up(), login():
Responsible for the signin and signup

b. interface of each primary function or class

- i. Class user:
 1. properties: uid, name, pwd, city, crdate, privileged
 2. method: get_privileged, postQuestion, postAnswer, vote, markaccepted (make selected post as accepted answer), giveBadge
- ii. Class Post:
 1. properties: pid , pdate, title, body, poster
 2. method: get_pid, get_pdate, get_pdate, get_title, get_body, get_poster
- iii. functions relevant to login page
 1. intro()
 2. sign_in()
 3. sign_up()
 4. login() ← calls the first 3 functions

c. structure and relationships

There are 2 classes, and 3 main blocks the program is divided into.

The Post class is used to create a post object, so that it can be more easily passed between functions. This is only used when the user has selected a post. The Post object opens up the post-search actions available to the current user, depending on whether they are a regular or privileged user.

The User class stores information on the current user logged in, and allows the user to post a question or answer, vote, mark an answer as accepted, give badges, add tags, and edit posts.

The program starts with Login block, where login() allows the user to navigate between the introduction, signing in, and signing up. Once the user either successfully

signs into an existing account or creates a new account, they will exit the Login block, and enter the Signed in block.

Signed in block lets users navigate between the different actions they can do. It also lets users logout (returning to the Login block) or exit the program entirely. This block calls upon the Search block when the user wants to search for posts.

Search block will allow the user to search for posts using keywords they've entered. It also allows users to select a post, which will be returned to the Signed in block as a Post object to allow for post-search actions.

3. Testing strategy

- a. prepare test data
- b. test login, signup and sign out part with different scenarios
- c. test functions from each module
- d. test the whole program

Login block	<ul style="list-style-type: none">- Enter nothing- Sign in with correct username and password- Sign in with incorrect username or password- Sign up with valid info- Sign up with a taken username- Sign up with invalid password confirmation- Enter 'back' at sign in and sign out- Enter 'exit'
Signed in block	<ul style="list-style-type: none">- Enter 'help' for instructions- Enter an action that is not a post-search action- Enter an action that is a post-search action before and after searching- Enter an action that is a post-search action before and after selecting a post- Enter an action only for privileged users- Enter 'exit' or 'logout'- Enter 'back' at any point will return the user to the previous page- Created a question post- Added a tag for a selected post- Edited a selected post- Gave a badge to a user- Marked a selected answer post as the accepted answer- Voted on a selected post- Answer a selected question post

Search block	<ul style="list-style-type: none"> - Searched for posts by entering keywords - Selected a post - Entered an invalid action when selecting a post - Enter 'next' or 'prev' when looking at search results - Did not select a post before returning to signed in block
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4. Group work break-down strategy.

Group Member	Functions	Other tasks
Zeyu Tian (zt2)	Post answer Vote Mark accepted answer Tag	Report Testing
Chang Liu (chang15)	Give badge Edit post Query section for search block	Report Testing
Helen Trinh (htrinh1)	Login block (sign in, sign up) Search block (search posts, display results, select post) Linking different functions to Signed in block	Report Testing

- a. progress/person:
Use software like Trello to assign tasks to team members, track progress and set deadlines.
- b. Method of coordination:
Basically most of the team communication happened in the discord and github. There are different channels in discord for each topic which can make communication more efficiently.
- c. Additions to program (not specified on requirements)
 - i. Allow user to move back to the previous page at almost any point in the program by typing 'back'