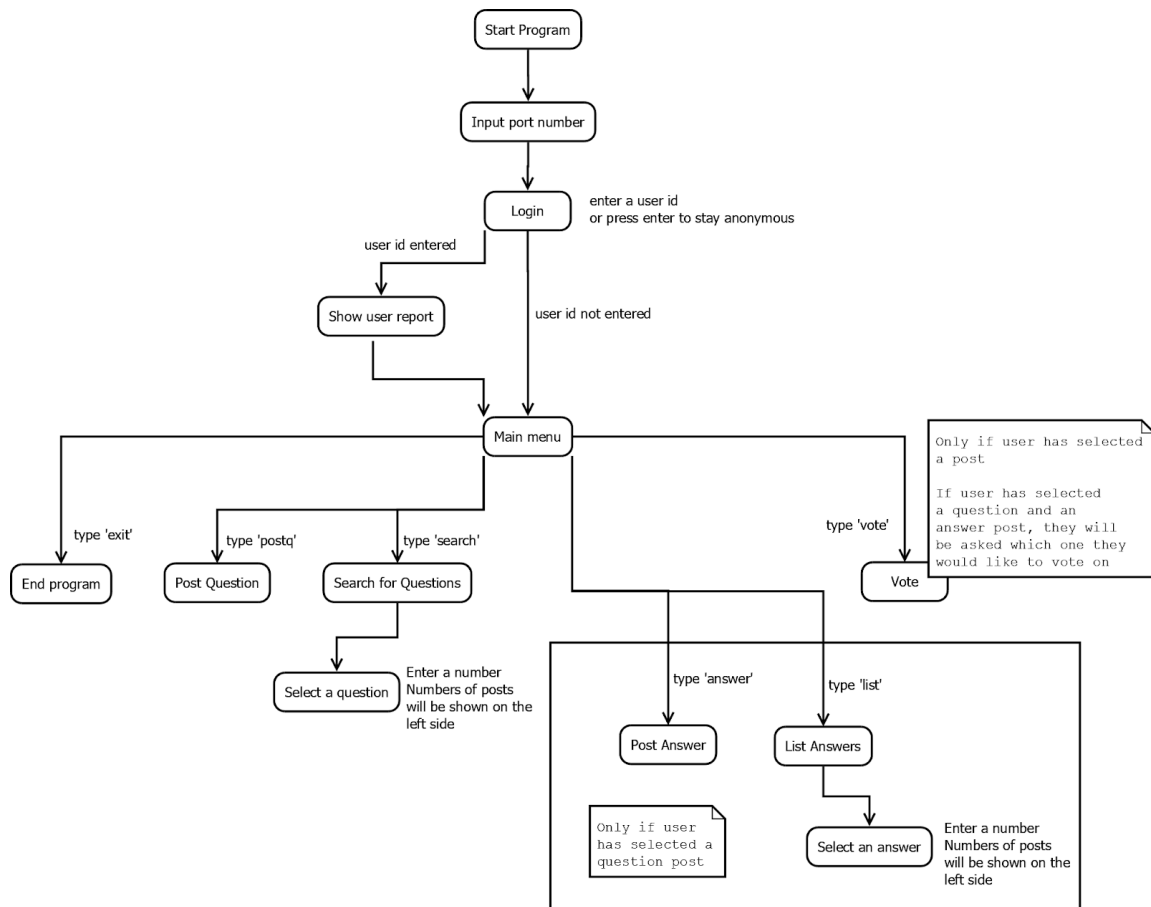# Design Document
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## 1. General overview of system with small user guide

Upon start, the program will ask for a port number to connect to.

This program allows users to interact with each other using posts. A user can login with a user id, or remain anonymous, and post questions or answers to other users' questions. The user is able to search for question posts by entering keyword(s), and vote on the selected post. Users can also choose to see all answers of a question post, select an answer post and vote on it. After each action, other than the search and select post actions, the user will be returned to the main page where they can choose to 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 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 intro():

            Responsible for user sign in

      iv.    Function search()

            Responsible for allowing user to search for question posts

b. Interface of each primary function/class

   i.    Class user:

      1.    Properties: uid

      2.    get_uid(), getuser_report(), postQuestion(), postAnswer(), listAnswer(), vote()

   ii.   Class Post:

      1.    Properties: number, id, acceptedAnswerId, creationDate, score, viewCount, body, ownerUserId, lastEditDate, lastActivityDate, title, tags, answerCount, commentCount, favouriteCount, contentLicense, parentId

      2.    Methods: getter for all properties, get_post_data()

   iii.  Main menu

      1.    Function calls on user class methods for different actions, and search

   iv.  Search

      1.    Calls on functions: get_keywords(), display_results(), select_post(), query_for_posts(), show_post()

c. Structure and relationships

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

Post class creates a post object, for info to be passed more easily around the program. It's create for matching posts when searching. It opens up actions answer, list answer, and voting. User class stores info of the current logged in user. If user is anonymous, the uid will be None. It allows the user to post questions or answer, list answer, and vote.

The program begins with intro() where it allows the user to login with a uid or anonymously. After the user logged in successfully, they will be moved to the main menu. The main menu allows users to perform different actions: post a question or answer, search for questions, list answers of a selected question post, and vote on selected posts. The search block allows users to search for question posts using keywords. They will also be allowed to select a question post, which they can view, votes, or post answers to afterwards.

3. **Testing strategy**

a. test login with different scenarios

b. test functions from each module

c. test the whole program

| Login | Enter nothing (press enter) |
| | Enter existing user id |
| | Enter non-existing user id |
| | Enter letters or symbols |
| Main menu | Enter an invalid action |
| | Enter 'exit' |
| | Enter 'back' any any point |
| | Post a question |
| | Post an answer to a selected question |
| | Vote on a question or answer post (without selecting a post) |
| | Vote on a question or answer post (selected post(s)) |
| | List answers of a selected question post |
| | Select answer from answer list |
| | View selected answer |
| Search | Search for posts using keyword(s) (term in title body or tag) |
| | Select a question |
| | View selected question (shows all fields of selected question) |

## 4. Group work break-down strategy

| Group Member | Functions | Other tasks |
| --- | --- | --- |
| Zeyu Tian (zt2) | Post a question<br>Answer a question (post answer)<br>List answers | Testing |
| Chang Liu (chang15) | Vote on a question<br>Vote on an answer | Testing |
| Helen Trinh (htrinh1) | Phase 1<br>Login block (sign in)<br>Search block (search posts, display results, select post) | Report<br>Testing (minimal) |

    a. progress/person:
        i. Use Trello to assign tasks, track progress and set deadlines.
    b. Method of coordination:
        i. Via discord and github
    c. Additions to program (not specified on requirements)
        i. Entering 'back' should return you to the main menu at any point