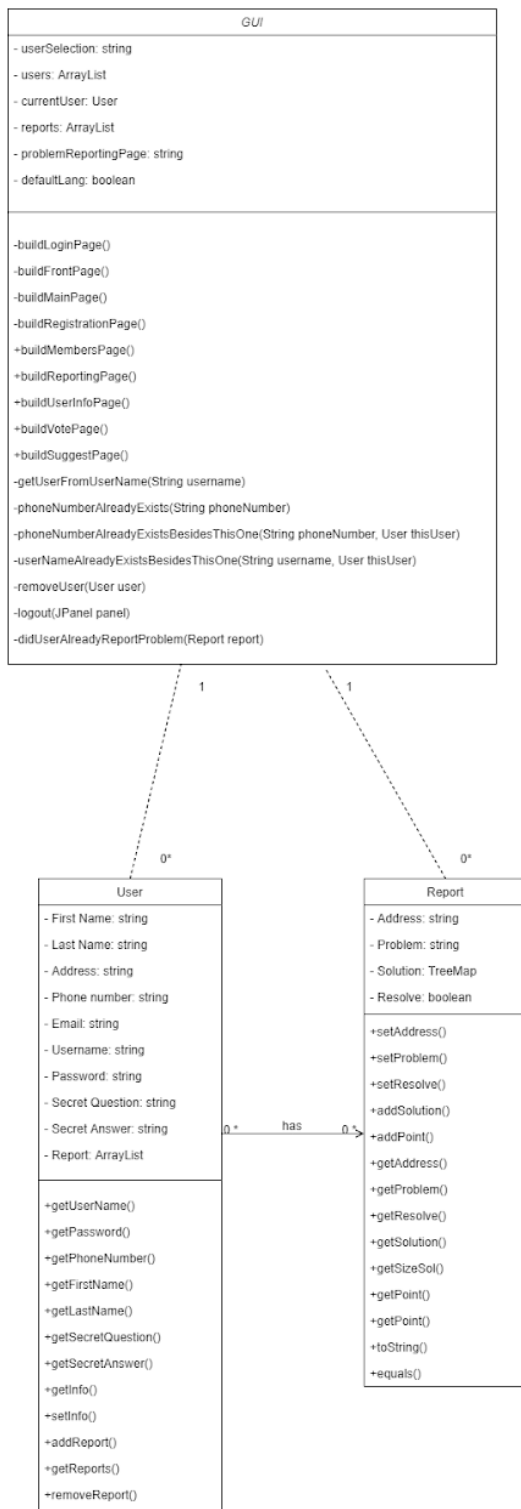
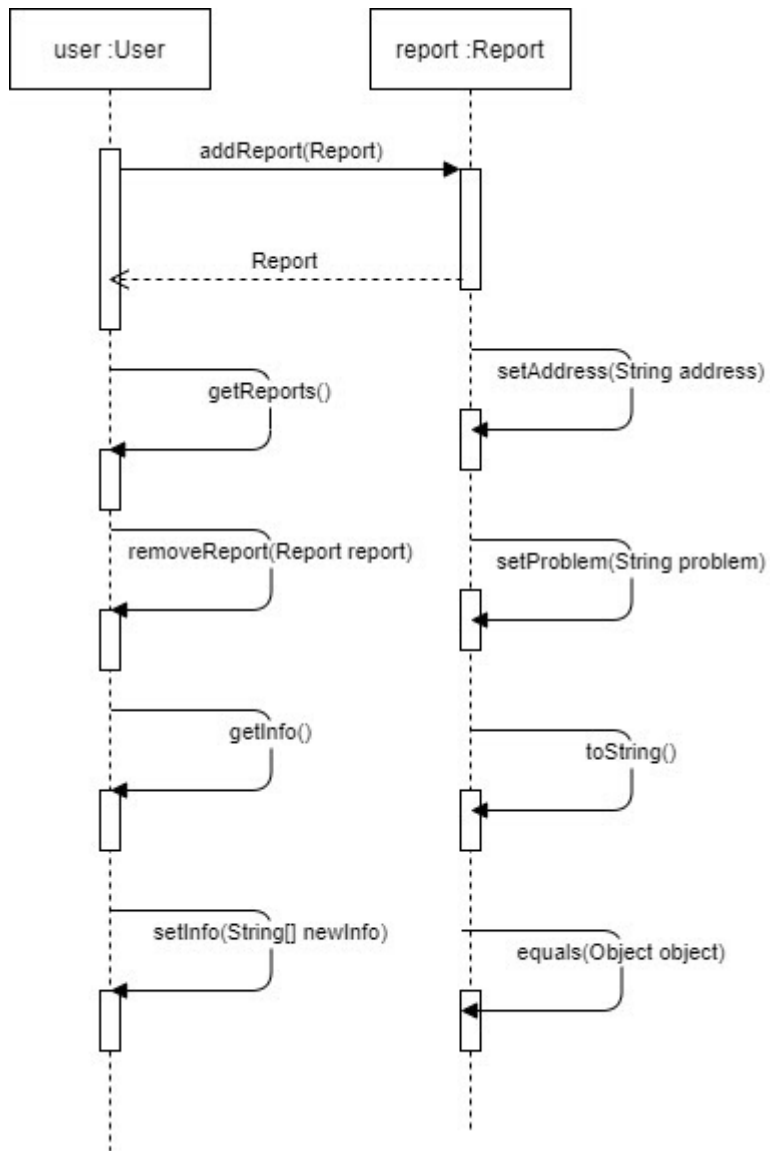


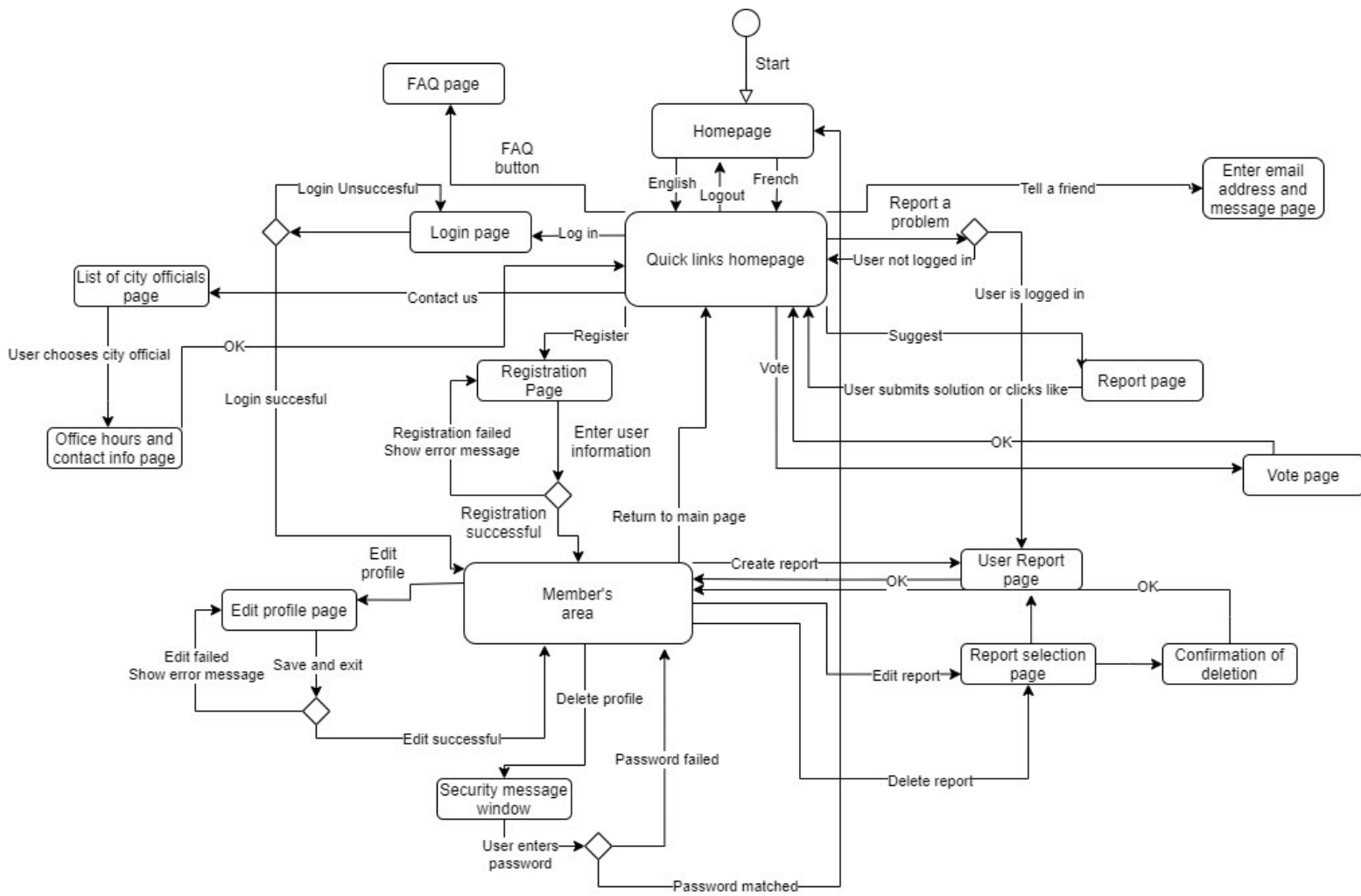
## Class Model Diagram



## Sequence Diagram



### User Interface State Diagram (GUI class)



## Modifications from Use Cases

During this sprint, the interactive map functionality was unable to be implemented. Due to this, our team could not implement the ranking use case (use case 9), as users were unable to pinpoint a specific location on a map. The FAQ page and survey functionality, which relate to use cases 14 and 11 respectively, are incomplete, although these components would look like and function as any other page in the application. Furthermore, use case 3.4(A)2 was omitted due to no real-time database involved to track users' sessions; users are currently able to attempt logins without being banned. The ban feature will be developed once the application is able and allowed to access timing on user devices.

For the purposes of this sprint, our team created the app with only civilian-use in mind. Due to this reason, use case 10, which involves report resolution, was left uncompleted, as the app was not built for the use of City Officials. We expect to add this in the next sprint, and as such, have added variables and functions that will keep track of report resolution.

In addition, the use case requirement for registration (use case 2) did not specify that the user needed to submit a secret question and answer. However, use case 3 and 5, which relate to login and deleting a profile, require that the user submit the answer to their secret question. Due to these requirements, we added secret question and answer fields to user registration.

## Test Report

During this sprint, we chose to use object-oriented programming to build the application. As a result, the application runs on Java se 1.7 or 1.8. Once completed, our team ran a series of simple tests to ascertain the functionality of the CYPRESS application. In particular, we focused on the main features of CYPRESS, including user registration, logging in, and creating, editing, and deleting reports. However, we also tested for extra features, such as suggest, vote, contact us, and tell a friend.

Feature	Test Case	Description	Input	Expected	Result
Language Selection	English	Determines that the user will operate the application in English	User selects the "English" button	Moves the user to the English page	Moves the user to the English page
	French	Determines that the user will operate the	User selects the "French" button	Moves the user to the French page	Moves the user to the French page

		application in French			
System authorization	Correct login	Allows the user entry to the application if their credentials match with those in the database	User enters their correct login credentials	User is taken to the Member's Area	User is taken to the Member's Area
	Incorrect login	Denies the user entry if their login credentials do not match	User enters incorrect login credentials	User is notified that their credentials are incorrect	User is notified that their credentials are incorrect
	Retrieve Password	Allows the user to retrieve a forgotten password by entering in the answer to their secret question	User selects the "log in" option, enters in their username, and selects "Forgot Password?" User then enters in the answer to their secret question	User is notified that their password has been sent to their email	User is notified that their password has been sent to their email
Registration	Correct registration	Determines that the user correctly filled out all text fields and creates a user profile for the user	User fills in all text fields correctly, agrees to the terms and conditions, and selects the "Register" button	A user profile is created and the user is taken to the Member's area	A user profile is created and the user is taken to the Member's area
	Incorrect registration	Determines that the user did not fill out all text fields	User leaves one or more text fields empty and selects the "Register" button	User is notified that all text fields must be filled out correctly and a user profile is not	User is notified that all text fields must be filled out correctly and a user profile is not

				made	made
Profile information management	Edit profile	Allows the user to modify their profile information	User selects the "Edit Profile" button and modifies their profile information. User selects the "Save and Exit" button.	User's profile information is modified and user is returned to the Member's Area page	User's profile information is modified and user is returned to the Member's Area page
	Delete profile (security credentials are correct)	Allows the user to delete their user profile	User selects the "Delete Profile" button. User inputs correct security credentials. User confirms they wish to delete their profile.	The user profile is deleted and the user is taken back to the homepage.	The user profile is deleted and the user is taken back to the homepage.
	Delete profile (security credentials are incorrect)	Does not allow the user to delete their user profile	User selects the "Delete Profile" button. User inputs incorrect security credentials	User is asked their security question. After user input, the user is informed that their input is incorrect and the user profile is not deleted	User is asked their security question. After user input, the user is informed that their input is incorrect and the user profile is not deleted
Report management	Create report	Allows the user to create a report, enter in address, pinpoint location on map, register complaint, and exit.	User selects the "Create a report" button. User enters an address and is prompted for a location on the city map. User selects	The report with the address, location on map, and type of complaint is registered in the system	The report with the address and type of complaint is registered in the system. The user is unable to pinpoint a location on

			complaint and exits		the map
	Create report (field missing)	Determines that a field is missing when user tries to create a report	User selects the "Create a report" button. User leaves one or more fields empty and tries to exit.	User is notified that fields are left empty and a report is not created.	User is notified that fields are left empty and a report is not created.
	Delete report	Deletes a report from the database	User selects the "Delete report" button. User selects which report they wish to delete	Report is removed from the database	Report is removed from the database
	Edit report	Allows user to edit a currently existing report in the database	User selects the "Edit report" button. User selects which report they wish to edit	User is taken to a page where they are able to edit their report	User is taken to a page where they are able to edit their report
Suggestions	Suggest a solution	User is able to suggest solutions for reports	User selects the "Suggest" option. User selects a report and enters a solution for the problem	The user's suggestion is submitted to the database	The user's suggestion is submitted to the database
	Suggest a solution (suggestion too short)	Determines if the solution the user suggested is too short to submit	User attempts to submit a solution that is under the required word count	The user will be prompted to re-enter another possible solution	The user will be prompted to re-enter another possible solution
Vote	Vote	User is able to vote from a list of options	User selects the "Vote" button. User selects their preference	The vote is registered and the number of votes is	The vote is registered and the number of votes is

			from a list of options	recorded	recorded
FAQ	FAQ page	User is taken to the FAQ homepage	User selects the "FAQ" button	The user is taken to the FAQ homepage	User stays on main page
Contact us	Contact us page	User is able to choose from a list of city officials to contact	User selects the "Contact us" button and selects from a list of city officials	A text box appears, detailing the name, address, and office hours of the selected city official	A text box appears, detailing the name, address, and office hours of the selected city official
Tell a friend	Tell a friend	User is able to enter an email and optional message to recommend the application to a friend	User selects the "Tell a friend" button and inputs an email. User may choose if they wish to send a personal message	The user is prompted for an email, and then asked if they wish to include a message. If not, a default message is sent	The user is prompted for an email, and then asked if they wish to include a message. If not, a default message is sent