

Project 2 Design Portion

Analysis

Login: The user will be greeted with a welcome message and prompted to either:

- a) Login to the system
- b) Quit the system

If the user chooses to login, he/she will be prompted to enter a username and password. If the password is incorrect the program will ask the user to try again. Elsewise, the user will me taken to the system admin or branch staff menus. If the user decides to quit the program will exit.

System Admin Menu: When the user manages to login successfully as a system administrator, he/she will be prompted to choose from the following options:

- Managing client accounts
 - If the user selects this option, he/she will be directed to the client and account management menu.
- Adding/Deleting a branch staff member
 - If the user selects this option, he/she is prompted to enter a username, password, and specific role of the staff member. If the user chooses to delete a branch staff member, the user will be asked for the username of the staff member to be deleted and then to confirm or cancel the deletion. If the user decides to confirm the deletion, the staff member is deleted. However, if the username entered is not found then the user is greeted with a warning message informing them that no staff member was deleted.
- Displaying the branch staff
 - If the user chooses to display the branch staff, the users stored in the system will be displayed along with their roles.
- Changing the password
 - If the user selects this option, they will be prompted for a new password and the current password will be changed if the password is valid. If the new password matches the old password, then the user will be prompted to enter another password.
- Exiting the program
 - If the user chooses to exit, the program exits.

Branch Staff Menu: When the user manages to login successfully as a branch staff, he/she will be asked to choose one of the following:

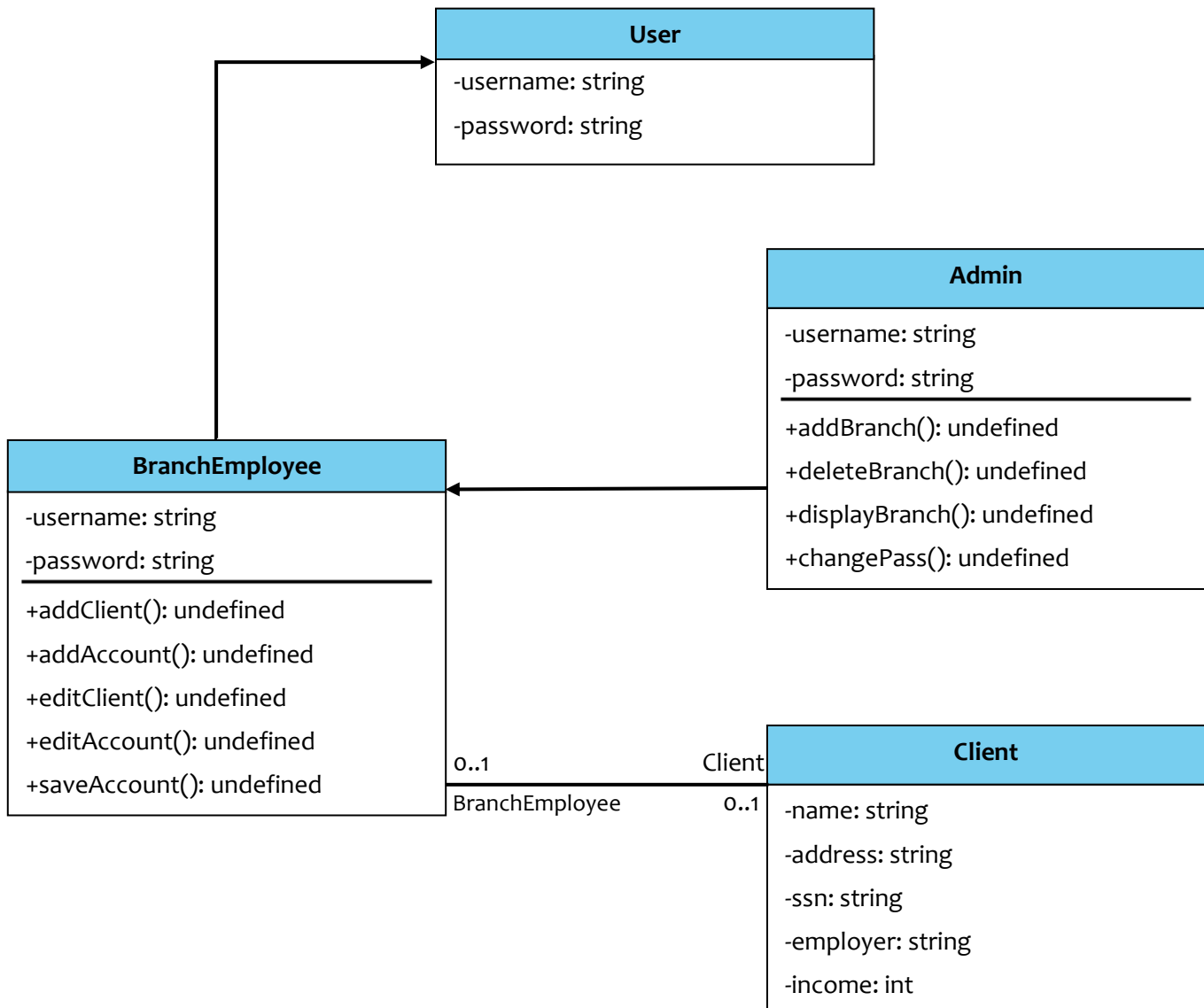
- Managing clients and accounts
 - If the user selects this option, he/she will be directed to the client and account management menu.

- Changing the password
 - If the user selects this option, he/she will be prompted for a new password, and the password will be changed.
- Exiting the program
 - If the user chooses to exit, the program exits.

Client and Account Management Menu: When the user is directed to the menu, he/she will be prompted with the following options:

- Adding a client
 - If the user chooses this option, he/she will be prompted to enter the name, address social security number, employer, and annual income of the client. The new client is then added.
- Adding an account
 - If the user chooses this option, he/she will be prompted to choose a client. If the client entered is valid, the user will be asked to enter the account number, type, and balance. If the client entered is invalid, the user will be given an error and asked to try again.
- Editing client information
 - If the user chooses this option, he/she will be asked to enter a valid client. That client's information will then be displayed, and the user will be asked to confirm if they wish to update the information. The user will then be prompted to enter the new information for the client.
- Managing an account
 - If the user chooses this option, the user will be asked for a valid account number. If the account number is valid, the program will ask the user to decide whether they wish to deposit, withdraw, or cancel. If the user chooses to withdraw or deposit, the user is prompted to enter an amount. The amount is then withdrawn or deposited into the account.
- Saving client and account information
 - If the user chooses this option, he/she will be given a statement saying that client and account information has been saved to a respective file. The file is then saved.
- Exiting the program
 - If the user chooses to exit, the program exits.

Design



Testing

Test 1: The first test will test the functionality of the login prompt that the user is given once the program starts. If the user enters a invalid option of 5 the user should be prompted to enter another choice until the user enters a valid of option of 1 or 2.

Test 2: The second test will test the functionality of system administration management menu. If the user enters an invalid option of -1, the user will be prompted to enter a valid option until it is entered. Once a valid of 1 – 6 is entered, the user will be taken to the option.

Test 3: The third test will test the functionality of logging in as branch staff. If the user enters an option of 5, the user will be given the option of entering another option until a correct one of the numbers 1 -3 is entered.