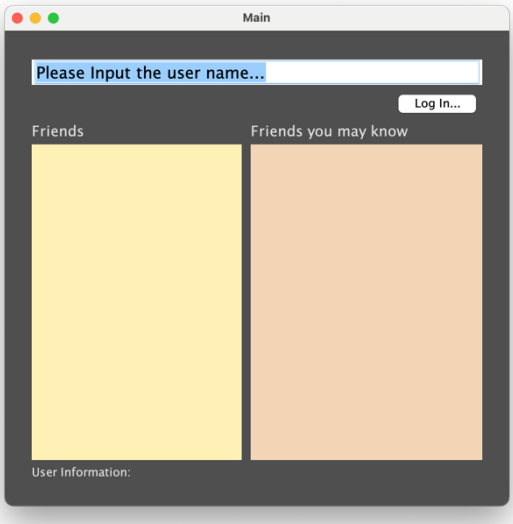
Task 2 - General Support Information for the Implementation

Step 1: Run and test the skeleton code.

You should be able to see the following GUI interface:



If you type anything in the text input area and click “Log In…”. You should be able to see the “User Information” at the bottom shows that “User Information: Unknown”. Since we haven’t loaded the data yet, it is normal to see this information.

Step 2: Load the data

You need to load the `NameList.csv` and `SocialNetworkData.csv` into your underlying data structures `ADS2List` and `ADS2Graph`. This is the moment you need to choose the suitable data structures for your algorithms. There are no right or wrong data structures for this task. Think ahead and check all the algorithms you need to design and develop after this step. Some suggestions from Semester 1 Week 10 “Code Profiling” may help you to make some good choices.

Also, this step needs you to read csv files. We have used many similar file I/O functions to do this. You can check the examples from:

- Semester 2 Week 7
- Semester 2 Week 8

Step 3: Develop your algorithms:

Here are some suggested algorithms for this task:

- You need to develop a **searching algorithm** for your ADS2List data. The searching algorithms returns -1 if there is no such user in the data sheet.
- After getting the current user ID, use this ID to **search all the neighbours** in the ADS2Graph. Return their names (not the ID) into a String array, which will be used to display in the interface.

- You also need to develop **the shortest path algorithms** for your ADS2Graph. Use this algorithm to calculate the distance between current node and all the non-direct linked nodes.
- A **sorting algorithm** is also required to pick up the top 10 closed “suggest friends”

Step 4: Debug and Test:

Here are some of the correct outputs. Please compare this output with yours. For your reference, it lists the distance in ascending order (You do not need to print the weight in your interface):