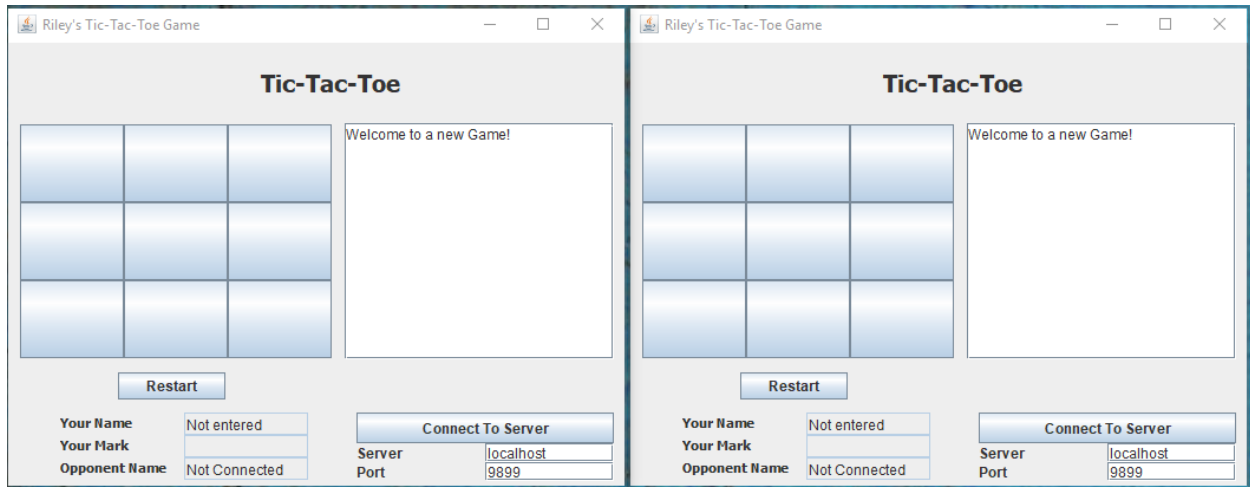


ENSF607 Lab 2 Deliverable 2

Group: Riley Berry and Zachary Graham

Task 4-5 Combined output and screenshots

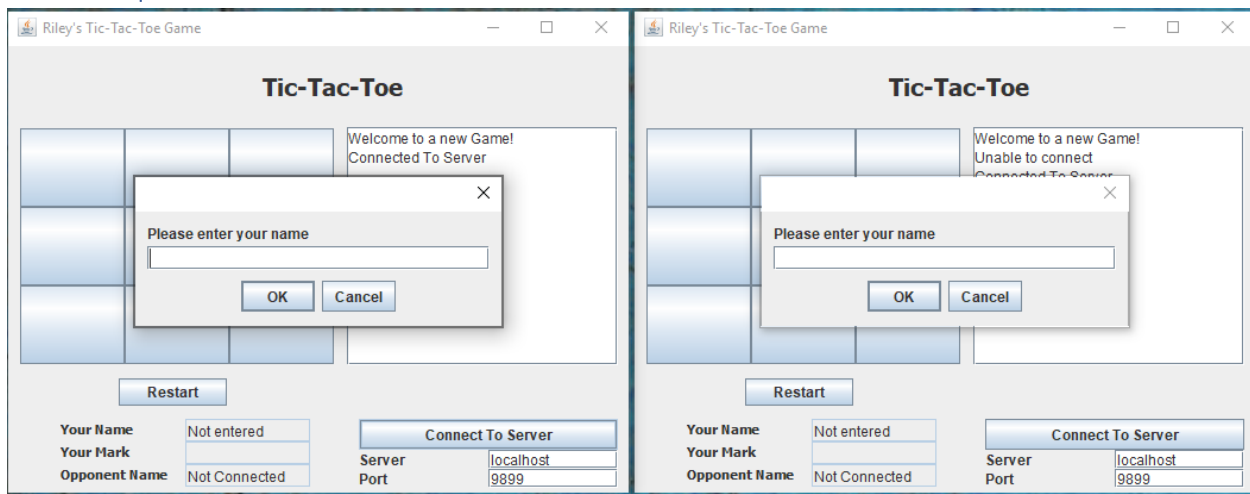
Default screen



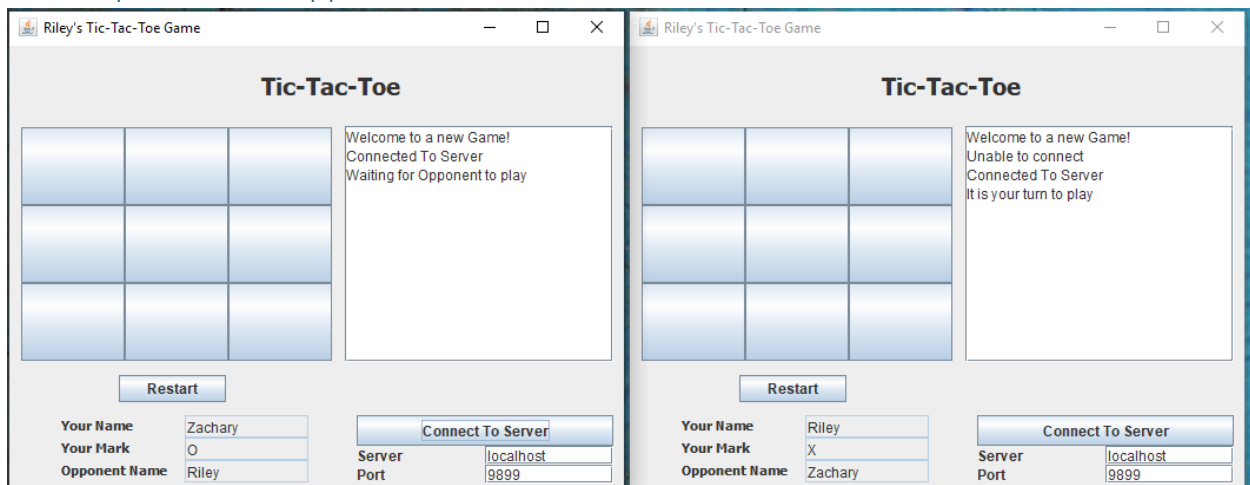
Invalid port/server entry



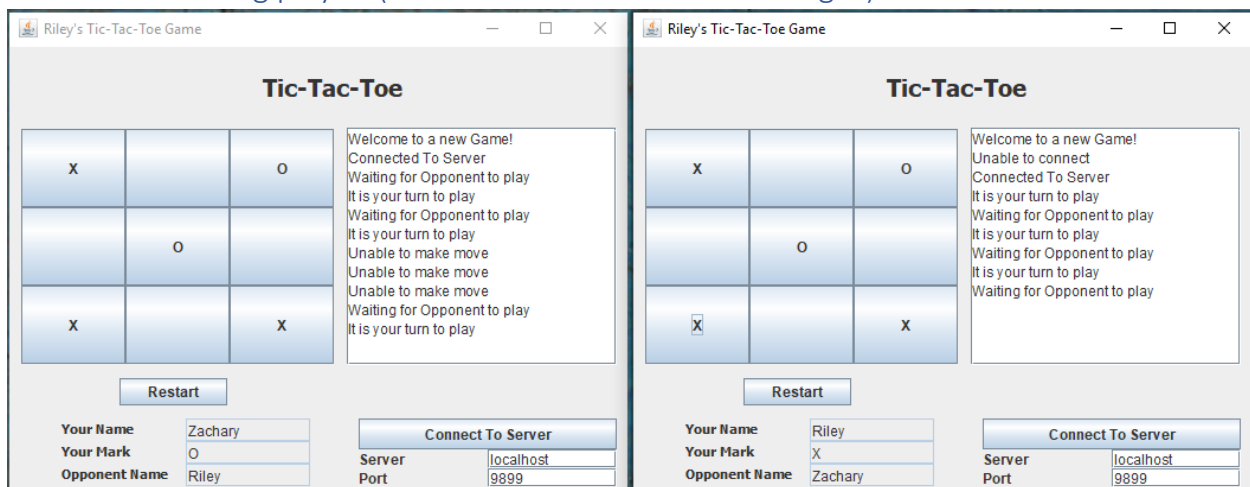
Name request



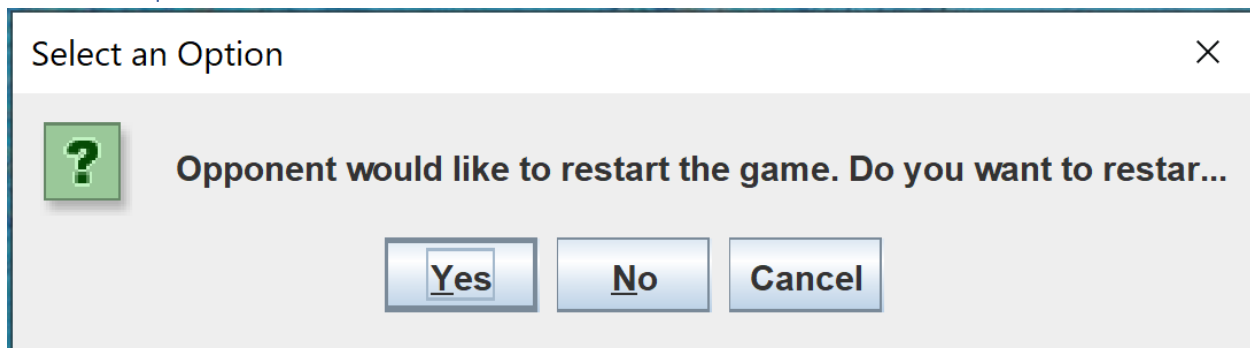
Game updated with opponent



Some moves being played (With some invalid move messages)

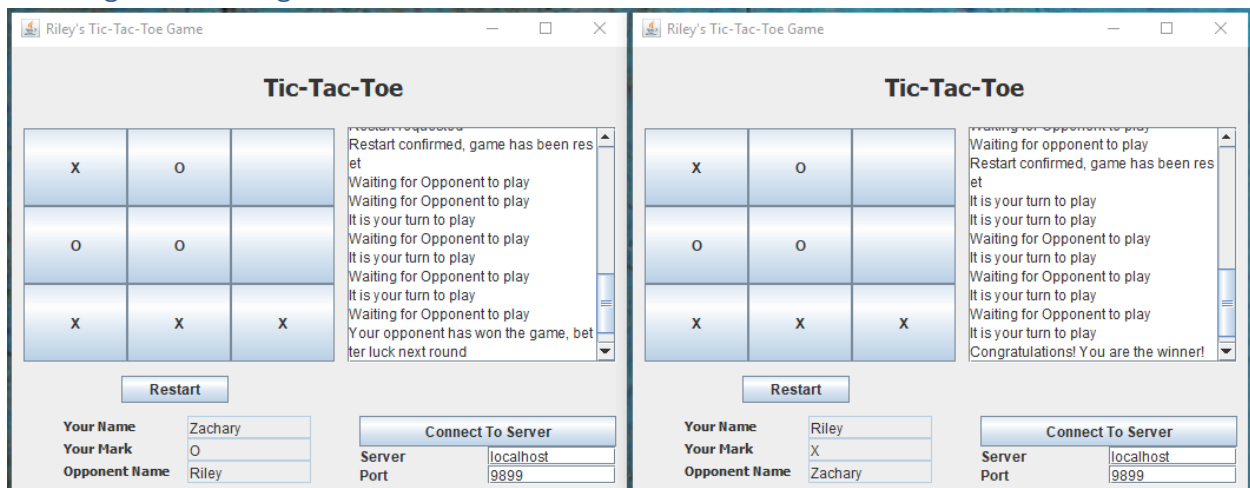


Restart request



(opponent gets first move after restart request)

End of game message



Server messages

Below are the messages sent from the server to the back end display

Server started
Connection accepted from first player
Connection accepted from second player
Game controller started

Note: title updated after output screenshots were taken

Task 6 Code Output and Screenshots:

Connection:

The server thread pool has a max size of three threads. When clients attempt to connect, the following windows are displayed:

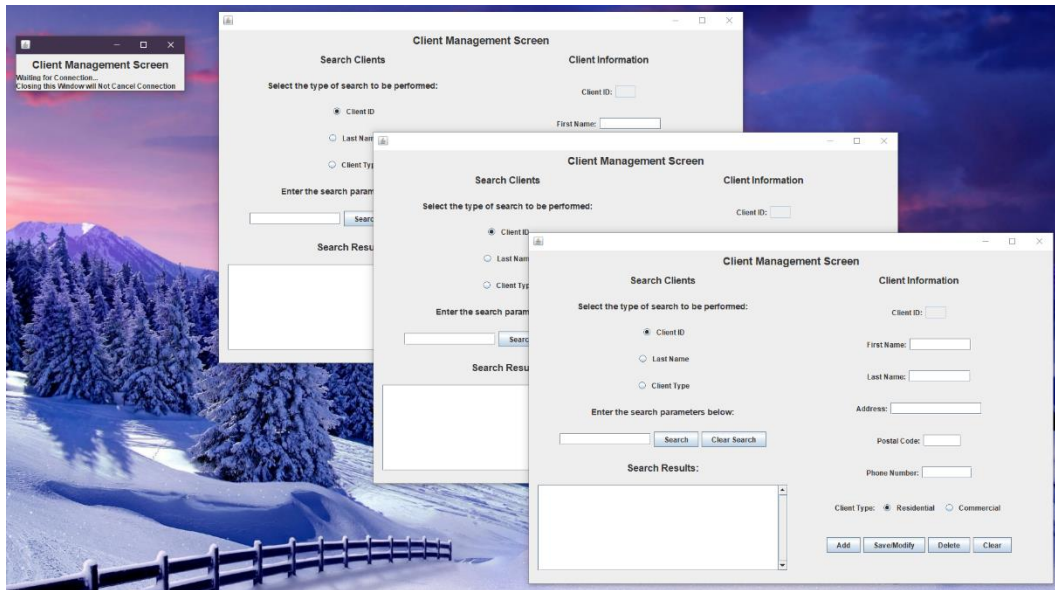


Figure 1. 4 Clients open simultaneously

If one of the connected clients is closed, the unconnected client will automatically connect:

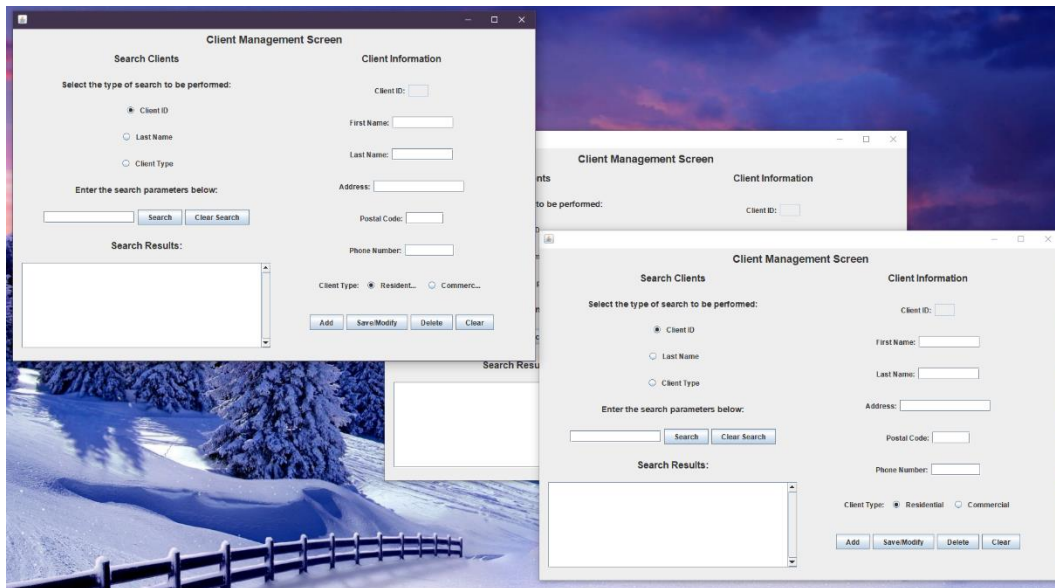


Figure 2. One client closed allows the 4th client to connect.

Client – Server Functionality:

Searching a client by type in one window and clicking on the client populates the client information box with their information:

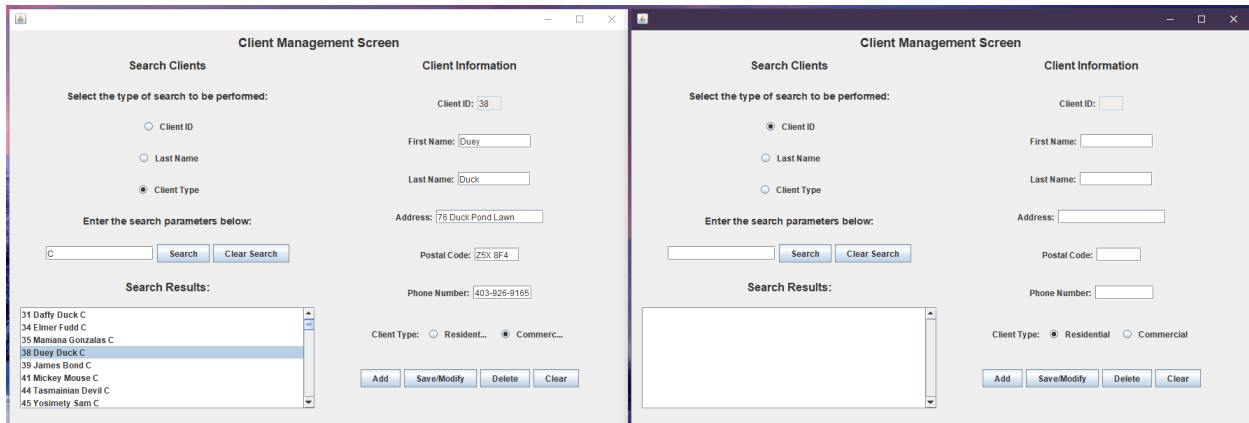


Figure 3. Searching a client using the UI returns a list of customers from the database.

Updating the information of that client and clicking save/modify, and then searching for that client in the second window:

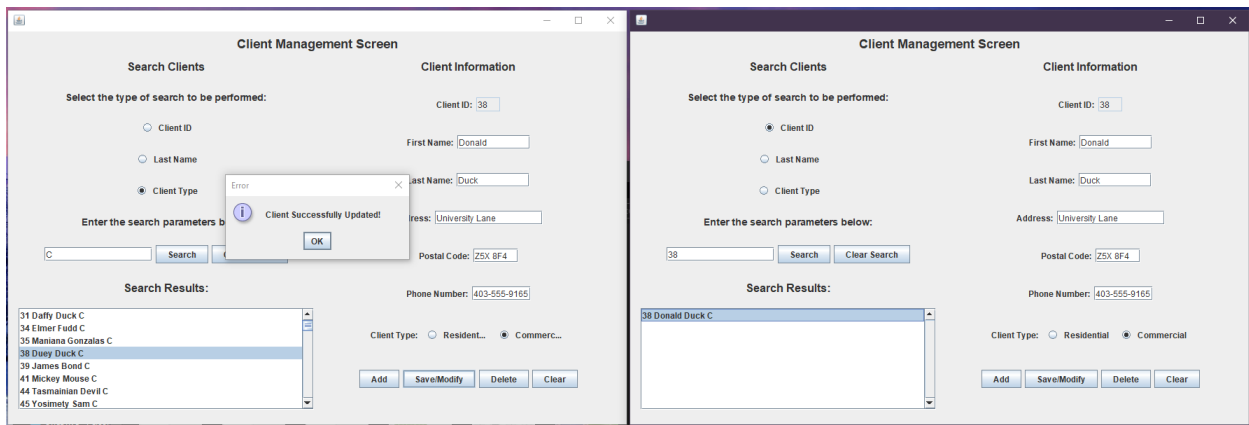


Figure 4. When a customer is updated in one client window, the changes are reflected in a search done by another client.

Using the second window to further modify the client and then save as a new client and search with the first window:

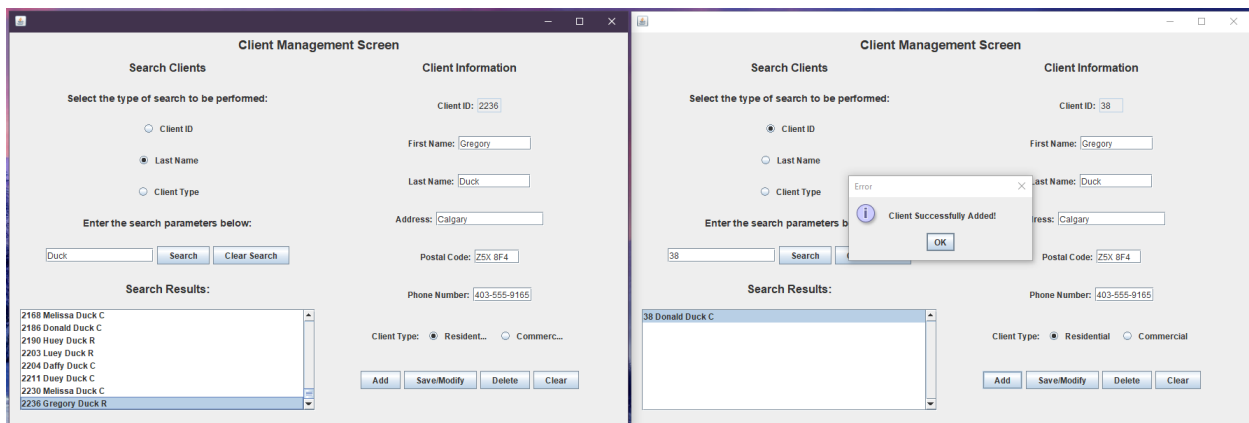


Figure 5. When a customer is added in one client window, they can be found in a search done by another client.

Deleting Client 38 in the first window and attempting to search for the client in the second window:

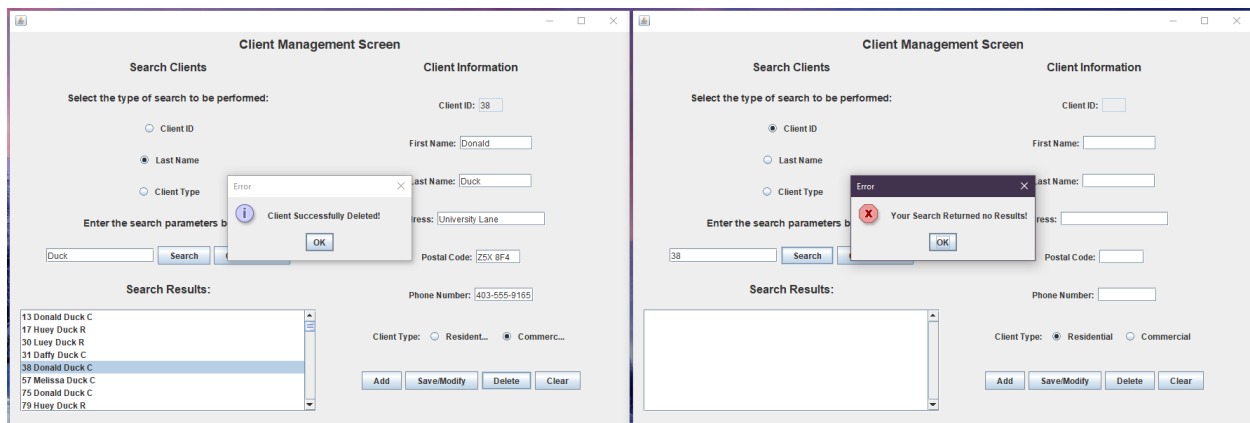


Figure 6. When a customer is deleted in one client window, they no longer appear in a search done by another client.

Other functionality: (Taken from ENSF 593 Lab 8 Report)

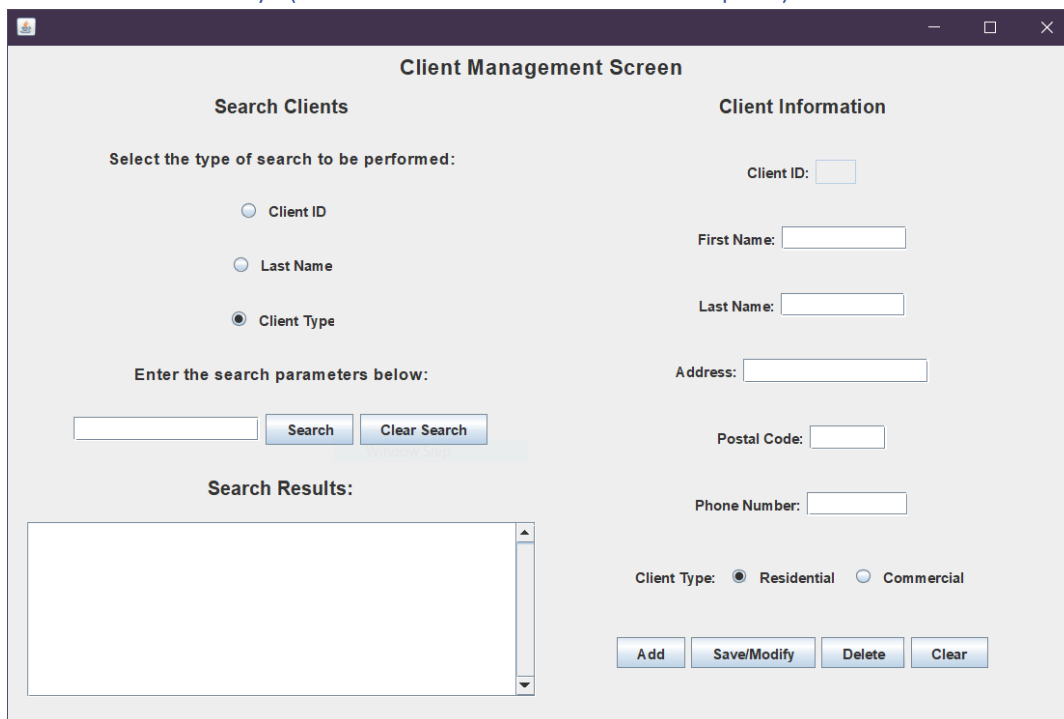


Figure 7. Client Management Screen when the program is first run.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID
☐ Last Name
☒ Client Type

Enter the search parameters below:

Search Results:

2 Bugs Bunny R
4 Bill Partley R
6 Perky Volunteer R
7 BobBob Never R
8 Homer Simpson R
9 Wilbur Wimp R
10 Really Depressed R
12 Nurse Betty R

Client Information

Client ID:

First Name:

Last Name:

Address:

Postal Code:

Phone Number:

Client Type: ☒ Residential ☐ Commercial

Figure 8. Client Management Screen after conducting a Client Type search with keyword 'R'. The search results window is populated with all residential type clients in the database. Client number 6 has been pressed and their information is being displayed in the Client Information panel.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID
☐ Last Name
☒ Client Type

Enter the search parameters below:

Search Results:

2 Bugs Bunny R
4 Bill Partley R
6 Perky Volunteer R
7 BobBob Never R
8 Homer Simpson R
9 Wilbur Wimp R
10 Really Depressed R
12 Nurse Betty R

Client Information

Client ID:

First Name:

Last Name:

Address:

Postal Code:

Phone Number:

Client Type: ☒ Residential ☐ Commercial

Error

Postal Code must follow the format: 'A1A 1A1'

OK

Figure 9. Screen after pressing add with an invalid postal code. The error message would also be displayed if save/modify were pressed.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID
☐ Last Name
☒ Client Type

Enter the search parameters:

Search: [R] [Search]

Search Results:

- 2 Bugs Bunny R
- 4 Bill Partley R
- 6 Perky Volunteer R
- 7 BobBob Never R
- 8 Homer Simpson R
- 9 Wilbur Wimp R
- 10 Really Depressed R
- 12 Nurse Betty R

Client Information

Client ID: [6]

First Name: [John]

Last Name: [Doe]

Address: [343 Volly Road]

Postal Code: [T4G 5G6]

Phone Number: [555-555-555R]

Client Type: ☒ Residential ☐ Commercial

[Add] [Save/Modify] [Delete] [Clear]

Error

Phone number must follow the format: '111-111-1111'

[OK]

Figure 10. Screen after pressing add with an invalid phone number. The error message would also appear if save/modify were pressed.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID
☐ Last Name
☒ Client Type

Enter the search parameters:

Search: [R] [Search]

Search Results:

- 2 Bugs Bunny R
- 4 Bill Partley R
- 6 Perky Volunteer R
- 7 BobBob Never R
- 8 Homer Simpson R
- 9 Wilbur Wimp R
- 10 Really Depressed R
- 12 Nurse Betty R

Client Information

Client ID: [6]

First Name: [John]

Last Name: [Doe]

Address: [343 Volly Road]

Postal Code: [T4G 5G6]

Phone Number: [555-555-5555]

Client Type: ☒ Residential ☐ Commercial

[Add] [Save/Modify] [Delete] [Clear]

Client Successfully Added

[OK]

Figure 11. Screen after pressing the add button when all client information text fields contain valid parameters.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID
☐ Last Name
☒ Client Type

Enter the search parameters below:

Search

Clear Search

Search Results:

50 Little Chickenhawk R

52 Yogi Bear R

54 Rocky Squirrel R

56 Lola Bunny R

58 Petunia Pig R

60 Booboo Bear R

61 Marvin The Martian R

63 John Doe R

Client Information

Client ID: 63

First Name: John

Last Name: Doe

Address: 343 Volly Road

Postal Code: T4G 5G6

Phone Number: 555-555-5555

Client Type: ☒ Residential ☐ Commercial

Add

Save/Modify

Delete

Clear

Figure 12. Reconducting the search now displays the added client at the bottom of the list. Their ID number is the next sequential number in the database and is not defined by the user. The Client ID field in general is not editable. A client can only be edited by first selecting them from the search box and the save/modify button updates the information that pertains to the client ID in the client information panel.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID
☒ Last Name
☐ Client Type

Enter the search parameters below:

Search

Clear Search

Search Results:

63 John Doe R

Client Information

Client ID: 63

First Name: John

Last Name: Doe

Address: 343 Volly Road

Postal Code: T4G 5G6

Phone Number: 555-555-5555

Client Type: ☒ Residential ☐ Commercial

Add

Save/Modify

Delete

Clear

Figure 13. Conducting a search with the last name type and entering Doe brings up a search result for our newly added client.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID

☒ Last Name

☐ Client Type

Enter the search parameters below:

Doe

Search Results:

63 John Doe R

Client Information

Client ID: 63

First Name: Greg

Last Name: Doe

Address: 343 Volly Road

Postal Code: T4G 5G6

Phone Number: 555-555-5555

Client Type: ☒ Residential ☐ Commercial

Error

Client Successfully Updated

OK

Figure 14. Selecting the client populates the text fields in the client information panel with that client's info. Changing the first name to Greg and pressing Save/Modify shows this screen. Client 63 is updated so that the first name is now Greg instead of John.

Client Management Screen

Search Clients

Select the type of search to be performed:

☐ Client ID

☒ Last Name

☐ Client Type

Enter the search parameters below:

Doe

Search Results:

63 John Doe R

Client Information

Client ID: 63

First Name: Greg

Last Name: Doe

Address: 343 Volly Road

Postal Code: T4G 5G6

Phone Number: 555-555-5555

Client Type: ☒ Residential ☐ Commercial

Error

Client Successfully Deleted

OK

Figure 15. Pressing delete client will delete the client whose ID matches the ID that is currently displayed in the Client Information panel.

The screenshot shows a web application window titled "Client Management Screen". It is divided into two main sections: "Search Clients" on the left and "Client Information" on the right. In the "Search Clients" section, there are three radio buttons for "Client ID", "Last Name", and "Client Type". The "Last Name" option is selected. Below these, there is a text input field containing "Doe", a "Search" button, and a "Clear Search" button. The "Search Results:" section below this contains an empty list box. In the "Client Information" section, there are several text input fields: "Client ID" (containing "63"), "First Name" (containing "Greg"), "Last Name" (containing "Doe"), "Address" (containing "343 Volly Road"), "Postal Code" (containing "T4G 5G6"), and "Phone Number" (containing "555-555-5555"). There are also two radio buttons for "Client Type": "Residential" (selected) and "Commercial". At the bottom of this section are four buttons: "Add", "Save/Modify", "Delete", and "Clear".

Figure 16. Pressing search in the search clients panel with the last name Doe now brings up zero results because the client has been deleted. However, their information remains in the client information panel if the delete was done erroneously so that the client can be re-added.

This screenshot shows the same "Client Management Screen" as Figure 16, but with all text input fields cleared. In the "Search Clients" section, the "Client ID" radio button is now selected, and the text input field contains "63". In the "Client Information" section, all text input fields ("Client ID", "First Name", "Last Name", "Address", "Postal Code", "Phone Number") are empty. The "Residential" radio button remains selected under "Client Type". All other elements, including buttons and the empty search results list, are the same as in Figure 16.

Figure 17. Pressing Clear in the client information panel deletes the text in all of the text fields.