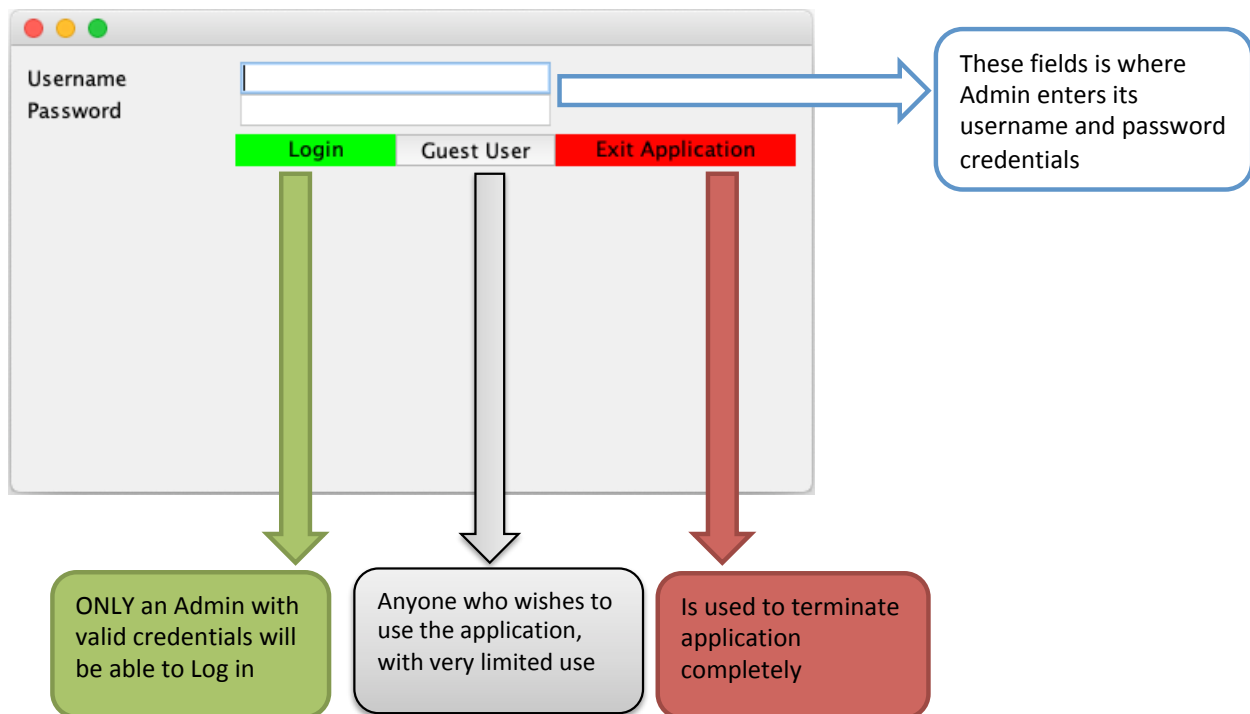# Grawler
(GameStop Crawler)

This application serves as a way to collect partial data from one of the most successful game distributers known "GameStop". Additionally, this application contains one of the fastest storage structures '*HashMaps*' which is used to store and query data at a incredible speed. Furthermore, The application contains a friendly user interface which makes the use of the application easy to use.

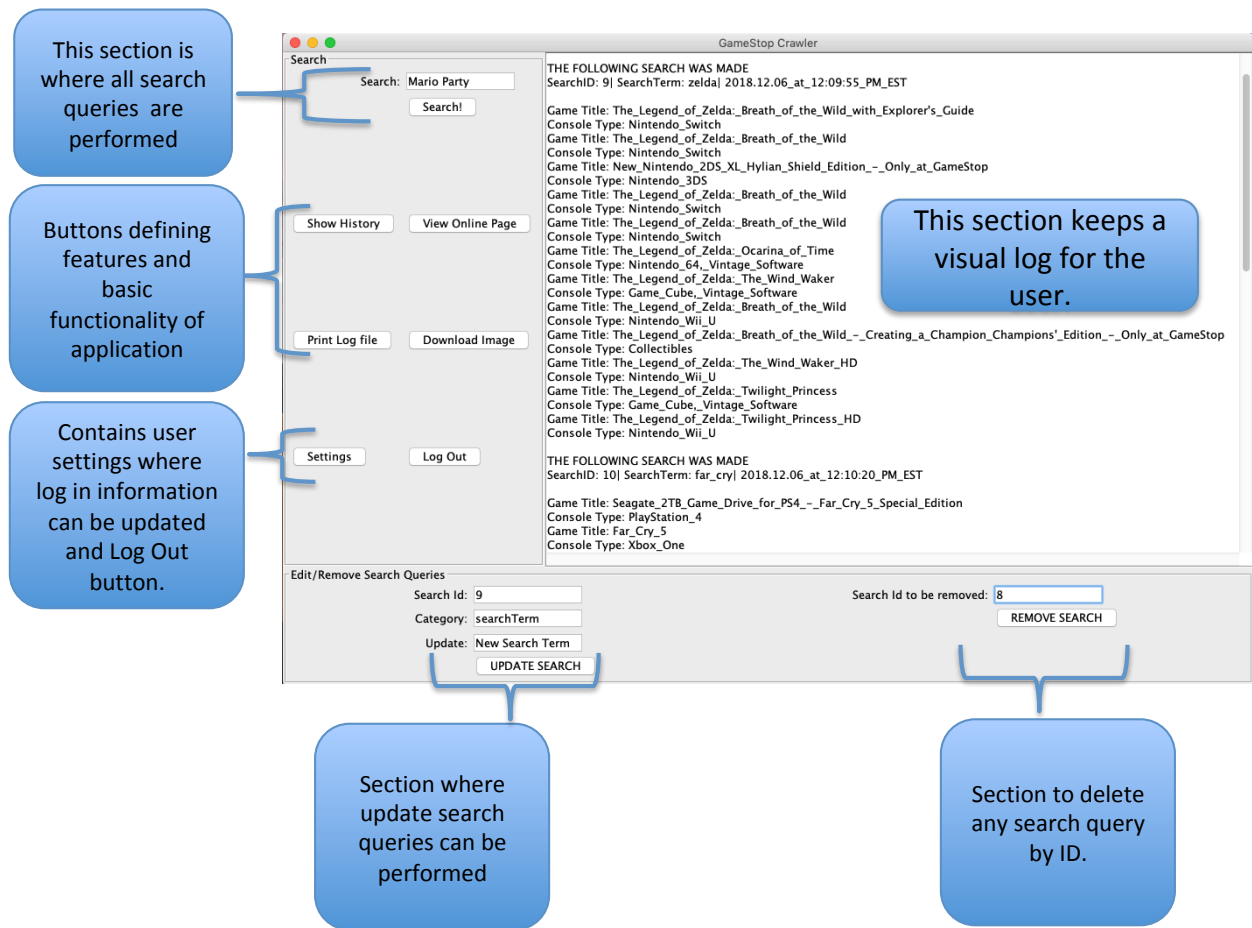Below you will find the user guide in how to use the Graphical User Interface.

IF YOU LIKE TO SEE A VISUAL TOUR OF THE APPLICATION, VISIT THE YOUTUBE LINK:
https://youtu.be/zkJXha3YSqo

When the application is initiated, a GUI is loaded to the user screen. This GUI is the "Main Log in" screen where a user can access as an Admin, which will require log in credentials OR as a guest user.

If a user pressed the "Guest User" button, you will be given access to the application. However, you will be restricted to use all the features, the only feature which you will be granted access will be the "Search" function. In the other hand, if a user with valid credentials logs in, they will be granted full access to the application functionality. Below please see a figure explaining each of the functions of the application.

This section is where all search queries are performed

Buttons defining features and basic functionality of application

Contains user settings where log in information can be updated and Log Out button.

This section keeps a visual log for the user.

Section where update search queries can be performed
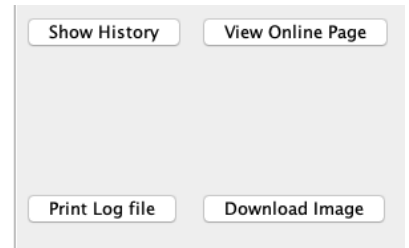
Section to delete any search query by ID.

The above shows the view of the main application, the administrator and guest user will be able to view this for the exception that the guest user will be limited on its functionality.

Each section of this application was thought out carefully to provide the user easy access to the main functionalities.
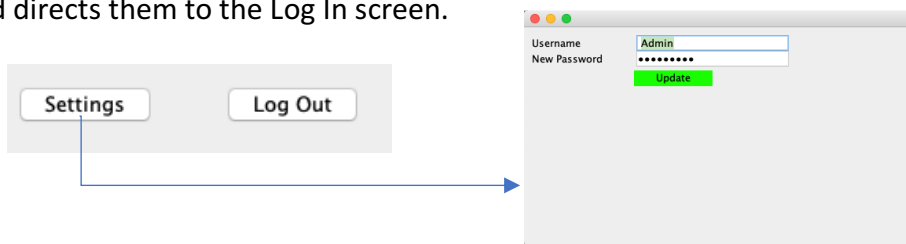
Making a search query: This section is where the user enters their desired search for a game or any game console item that they may be looking for. After clicking the "Search!" button, the log screen will display the search query in details and a list of results.

Additional functionality: There are four (4) features available to the user which are:

- **Show History** – Prints the log history to the screen which displays all user activity with time stamp.
- **View Online Page** - A feature which allows the user to view the page they are browsing.
- **Print Log File** – Allows the user to print a ".txt" file containing all the logs.
- **Download Image** – Downloads an image from the GameStop site.
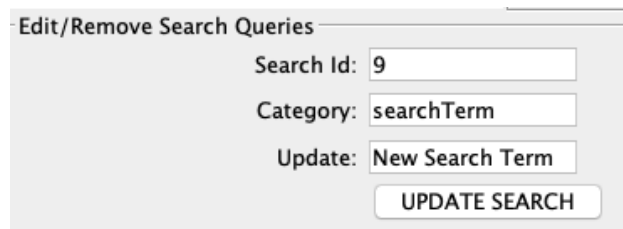
User Update & Logging out: This was a very important feature to include. We wanted that our main Admin user would feel secure from anyone trying to hack their account. The "**Settings**" option allows the user to update their log in credentials such as the username and password (see picture). In addition, the password is encrypted that way no one is able to hack the password, security is taken seriously. Lastly, the "Log Out" button ends the user current session and directs them to the Log In screen.
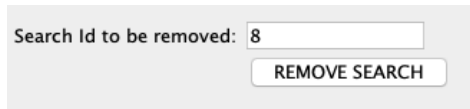
Editing a Search Query: Three (3) input fields are provided. "Search Id" must contain the ID of an existing search query in the storage structure. The "Category" field must containing one of the following editable fields:
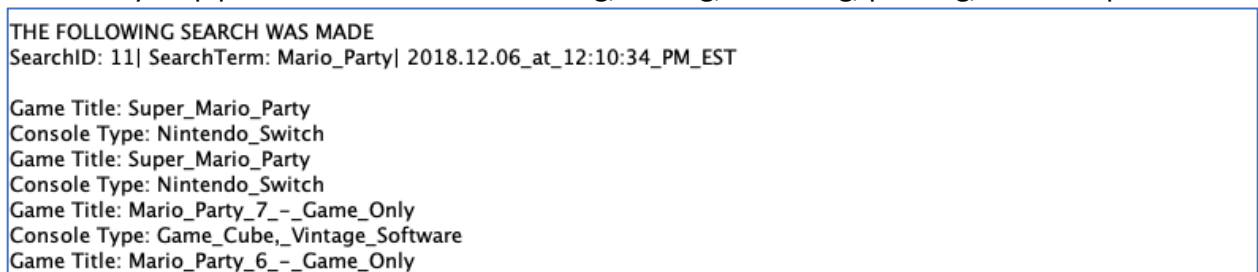
- search
- gameTitle
- consoleType
- timeStamp

Removing a Search Query: One (1) field is provided which is the search ID field. Only the ID is necessary to delete a search in the data storage.

Activity Log file: A activity log file is kept on the text area which indicates the user what is going on in every step process taken when searching, editing, removing, printing, and file upload.

```
THE FOLLOWING SEARCH WAS MADE
SearchID: 11| SearchTerm: Mario_Party| 2018.12.06_at_12:10:34_PM_EST

Game Title: Super_Mario_Party
Console Type: Nintendo_Switch
Game Title: Super_Mario_Party
Console Type: Nintendo_Switch
Game Title: Mario_Party_7_-_Game_Only
Console Type: Game_Cube,_Vintage_Software
Game Title: Mario_Party_6_-_Game_Only
```

In addition, the application keeps an <u>outputLog.txt</u> file that stores the log content of the user's action, <u>URLResult.txt</u> which contains the HTML content of GameStop search, <u>searchedData.txt</u> which saves all the search results obtained from the website, and a <u>queryLogFile.txt</u> that keeps a log of all search queries which are used to make update and delete queries.