Our project aimed to create a mock streaming service with a correlating database. We utilized a Java front-end design connected to a MYSQL database to accomplish this. In our streaming service, everyone is considered a user and can either be an administrator or a member, or both. We give each user the option to have either a basic plan or an extra plan, which allows members to access the streaming service from one or three locations at a time.

Our front end allows for secure login and based upon your status as a user (administrator or member), it will greet you with the ability to search for different shows/movies by the director, actors, movie title, or genre. As a member, you can also see your streaming history and the media you've not yet streamed. It also offers a convenient checkbox system to where you can select and view multiple media items based on the awards, actors, director, etc.

As an administrator, our streaming service grants you access to several tools from the front end. You can add or remove shows or movies with the click of a button, view the streaming trend over the past 24 hours, view the streaming history of a particular movie/series, and view the ten most streamed media over the past month. You can also delete members; however, you cannot delete a user's data.

User login information for different levels of access

Admin:

(username), (password)

bill, password2

bob, password3

randy, password1

Member:

(username), (password)

nate, password6

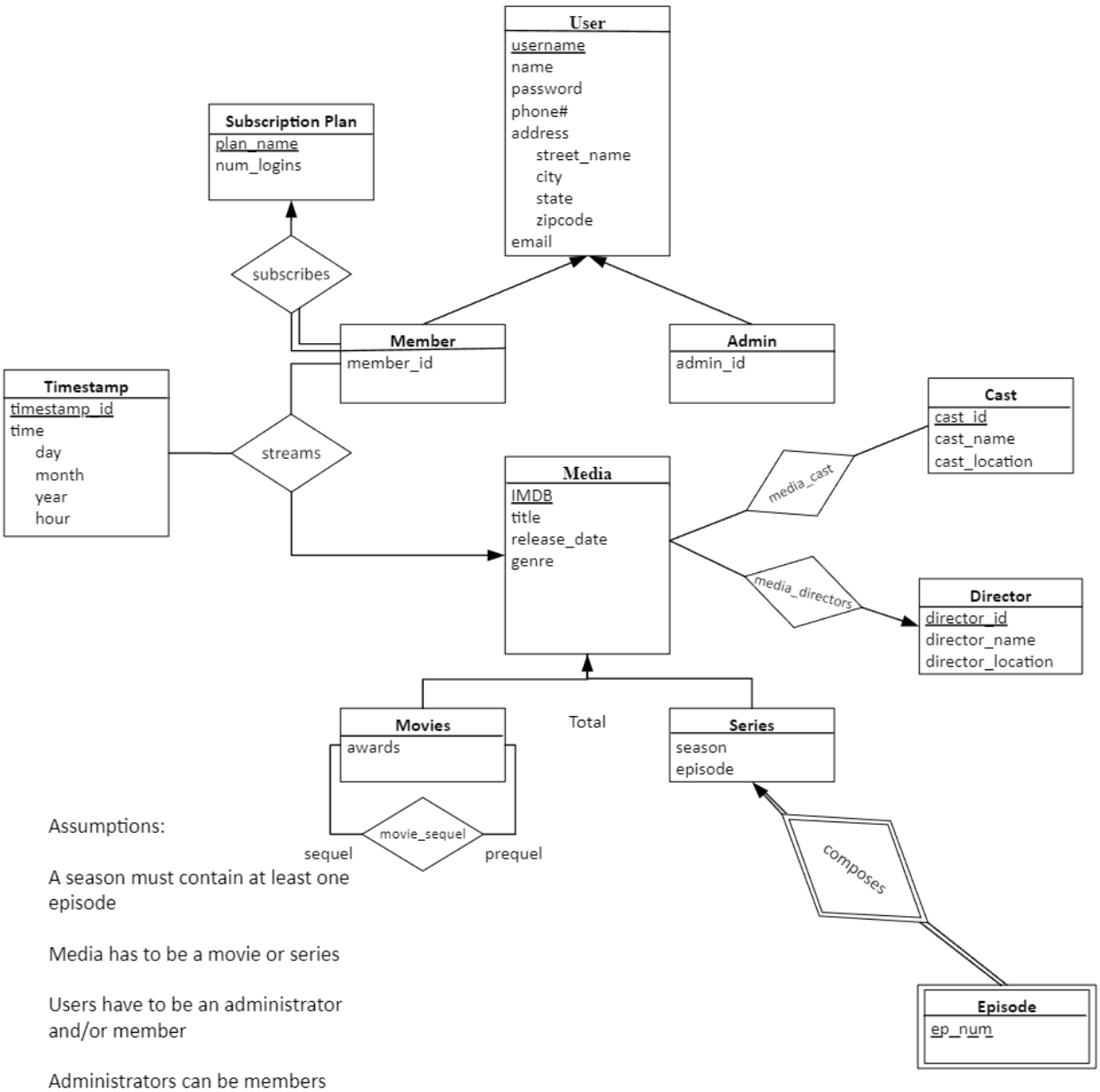
isaac, password5

Admin & Member:

(username), (password)

cole, newpassword

COMP 4410 GROUP 3 ER Diagram



Assumptions:

A season must contain at least one episode

Media has to be a movie or series

Users have to be an administrator and/or member

Administrators can be members

Every media must have at least one cast and director

Every time media is streamed, a timestamp is recorded

Each member must have a subscription plan but a subscription is not required to have members subscribed to it

Relation Schema

user(username, name, password, phone_num, street_name, city, state, zipcode, email)

member(username, member_id, plan_name)
plan name is a FK that references subscription plan,

admin(username, admin_id)

subscription_plan(plan_name, num_logins)

timestamp(timestamp_id, day, month, year, hour)

streams(username, timestamp_id, IMDB)
username is a FK that references member
timestamp_id is a FK that references timestamp

media(IMDB, title, release, genre)

movies(IMDB, awards)

series(IMDB, season, episode)

Episode(ep_num, IMDB)
IMDB is a FK that references series

media_cast(IMDB, cast_id)
IMDB is a FK that references media
cast_id is a FK that references cast

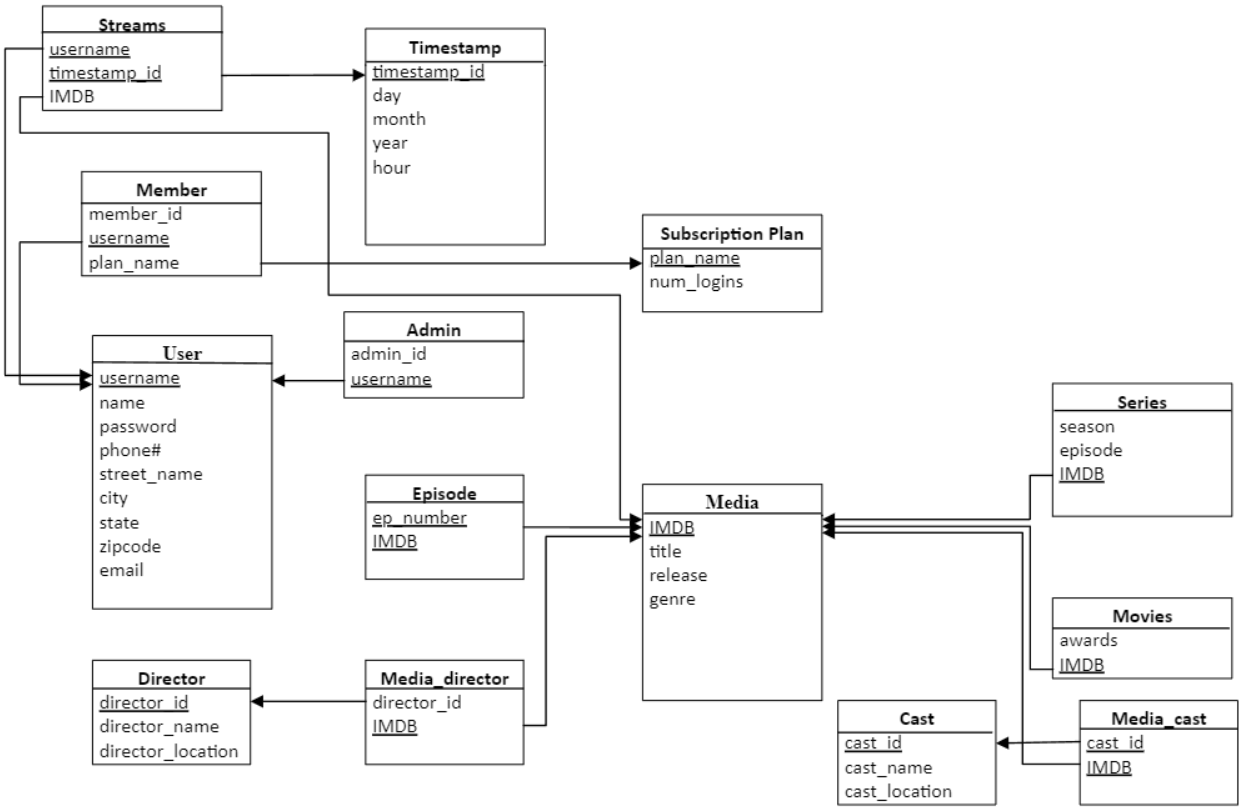
cast(cast_id, cast_name, cast_location)

media_director(IMDB, director_id)
IMDB is a FK that references media

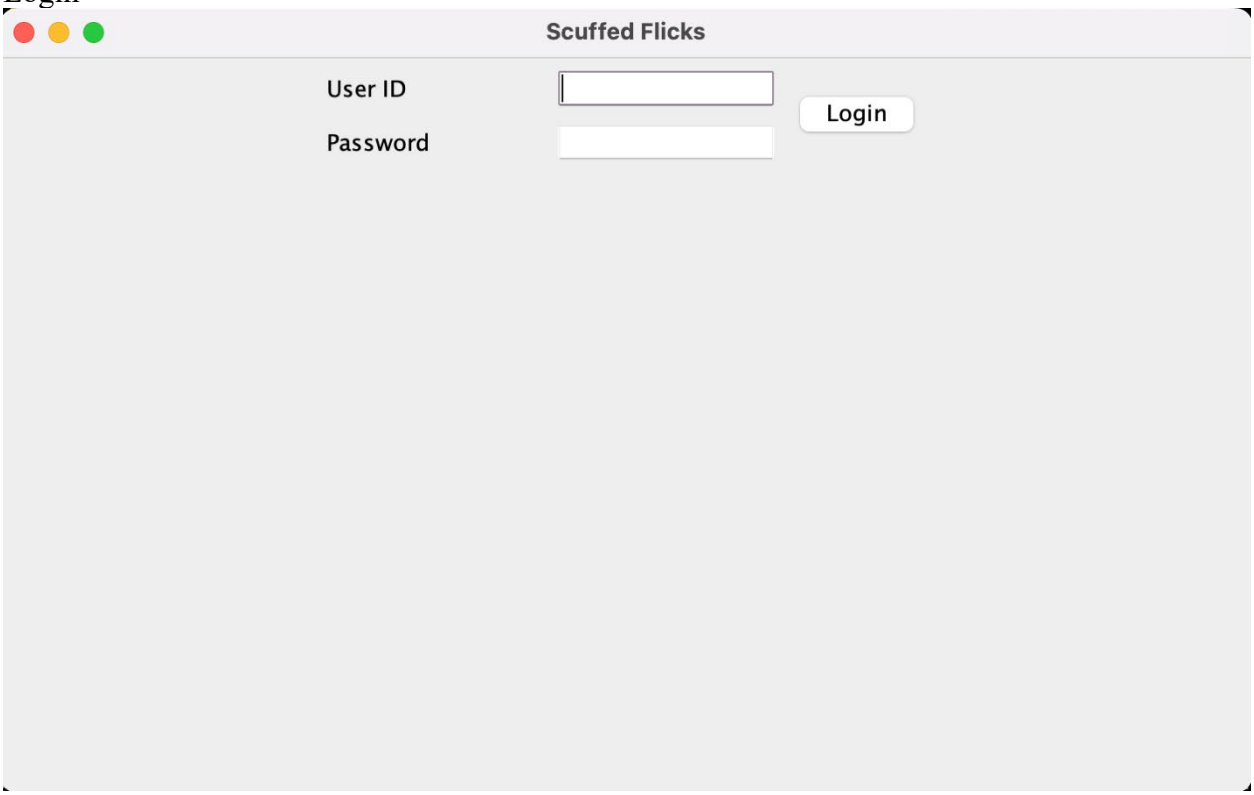
director(director_id, director_name, director_location)

movie_sequel(sequel, prequel)
sequel is a FK that references movies
prequel is a FK that references movies

COMP 4410 GROUP 3 Relation Schema
Diagram

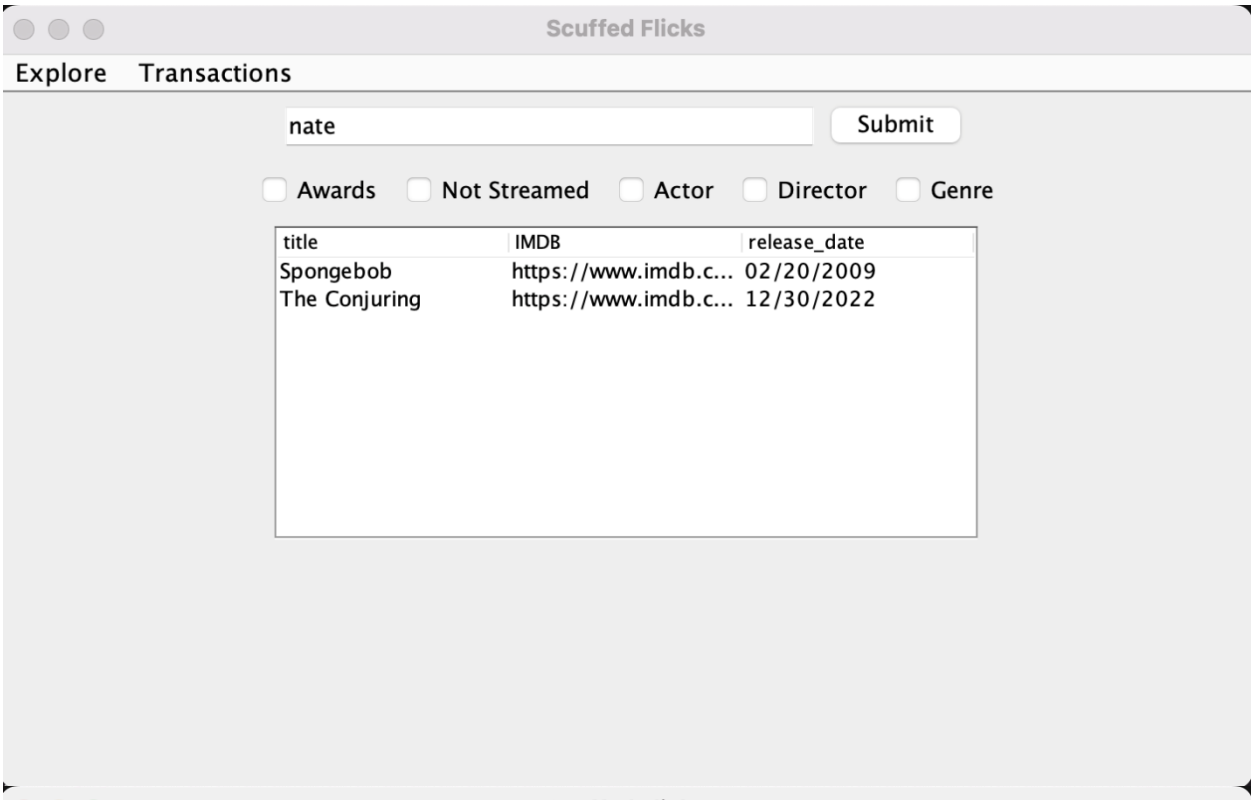


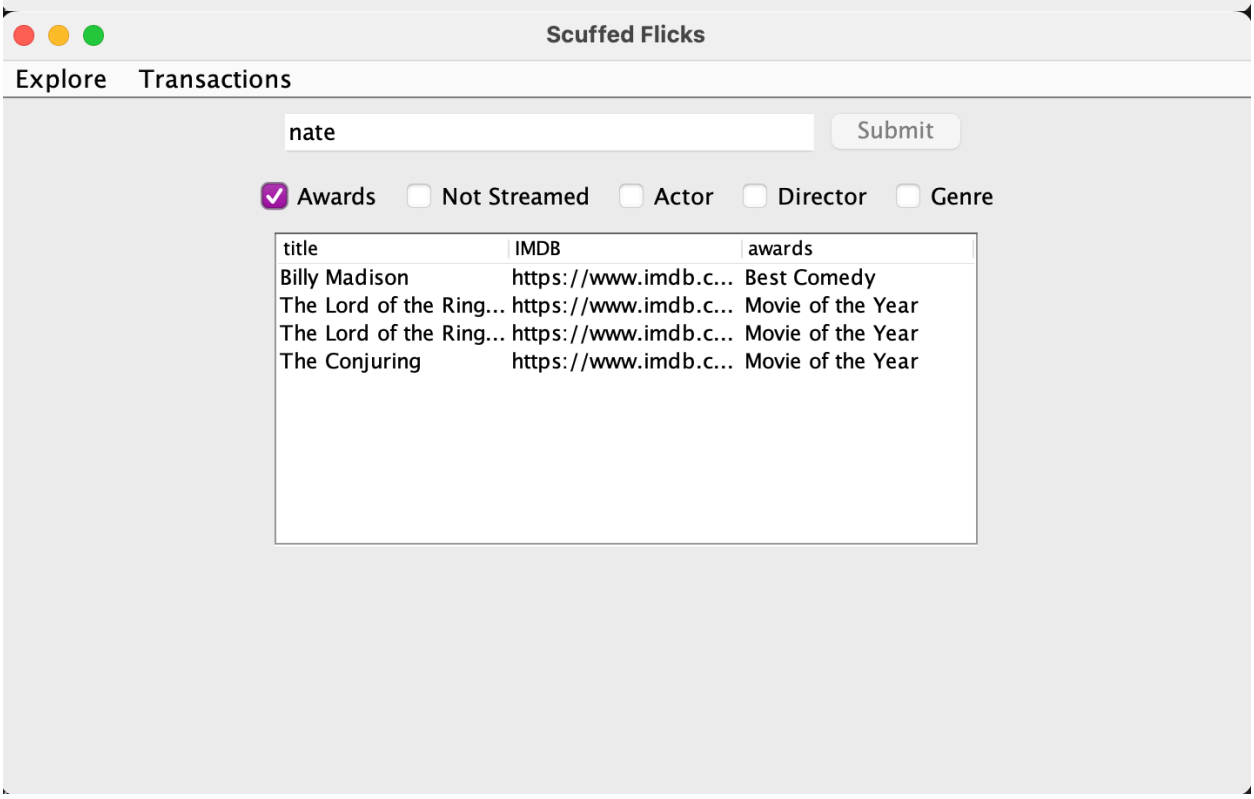
GUI/Program Capabilities:
Login



Queries

Basic Search





Scuffed Flicks
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Spongebob
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The Lord of the Rings: The Two...
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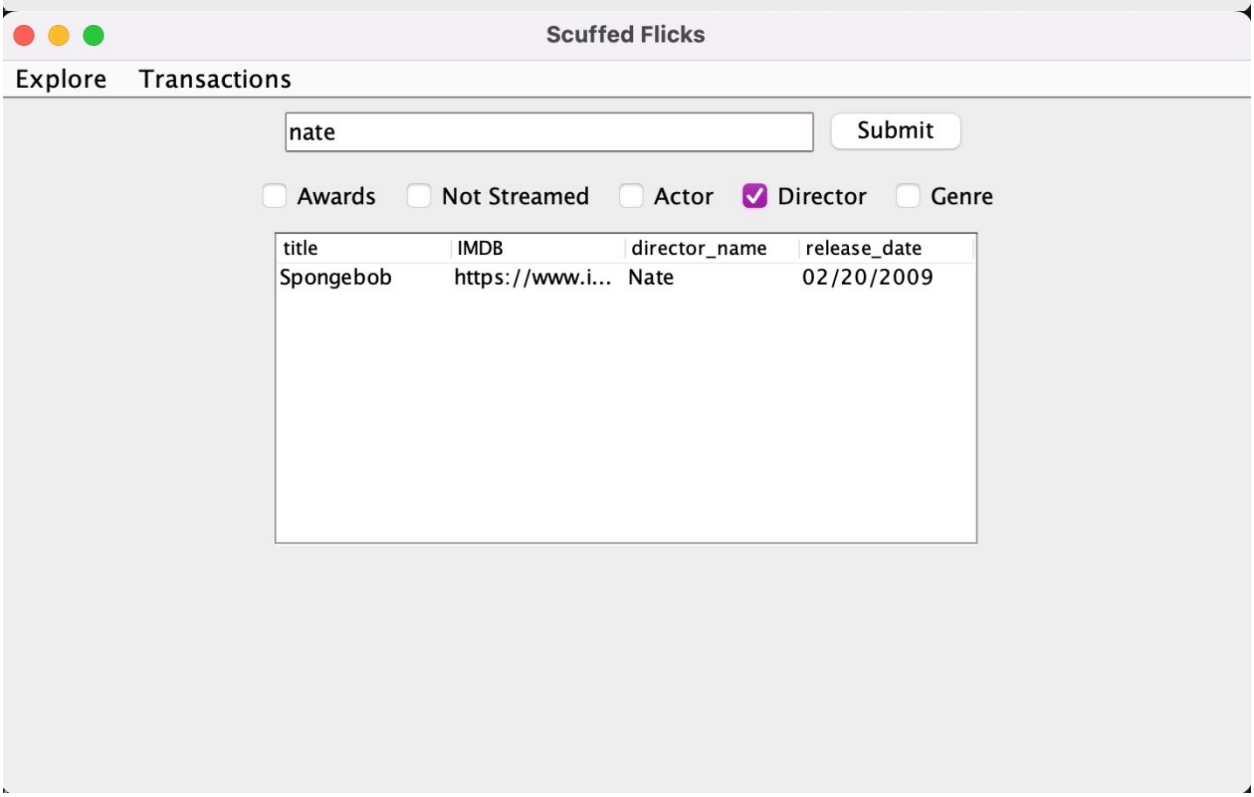
The Lord of the Rings: The Fello...
https://www.imdb.com/title/tt0...
Billy Madison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Scuffed Flicks
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Horror
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The Conjuring 2
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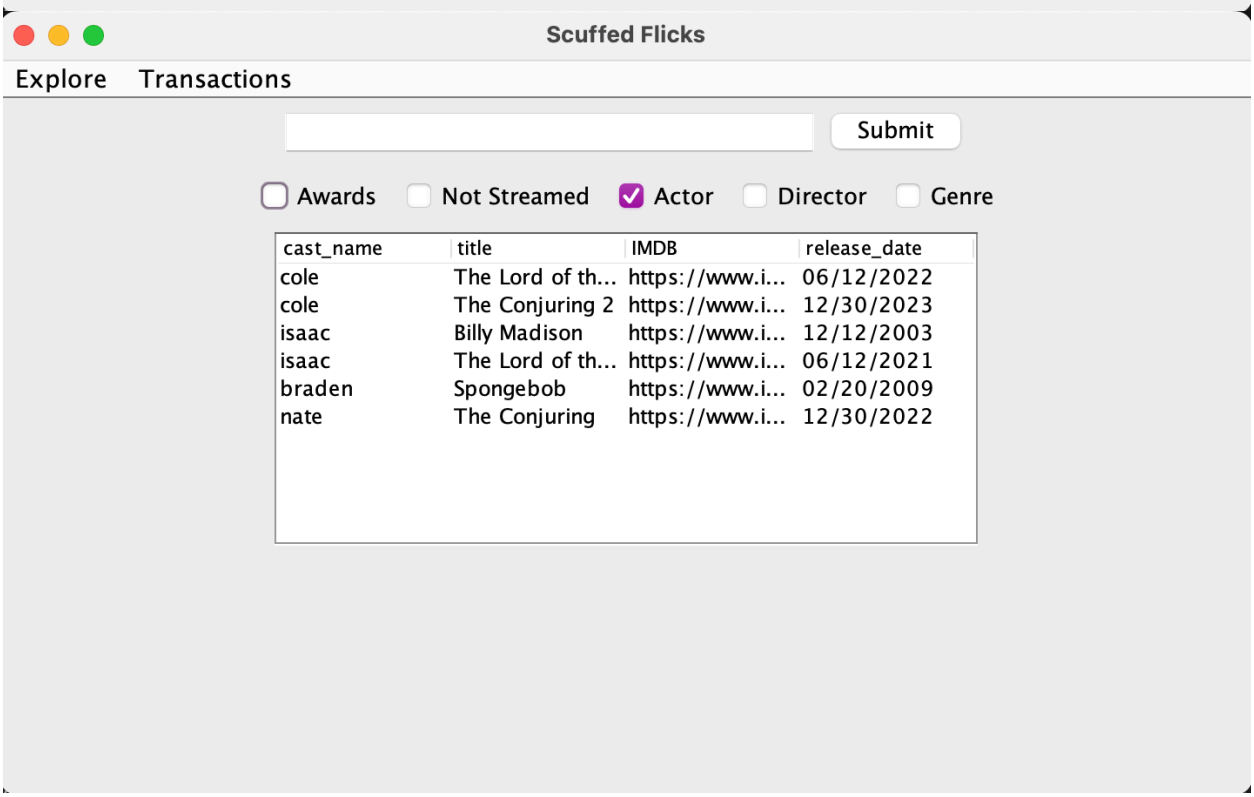
Horror
12/30/2023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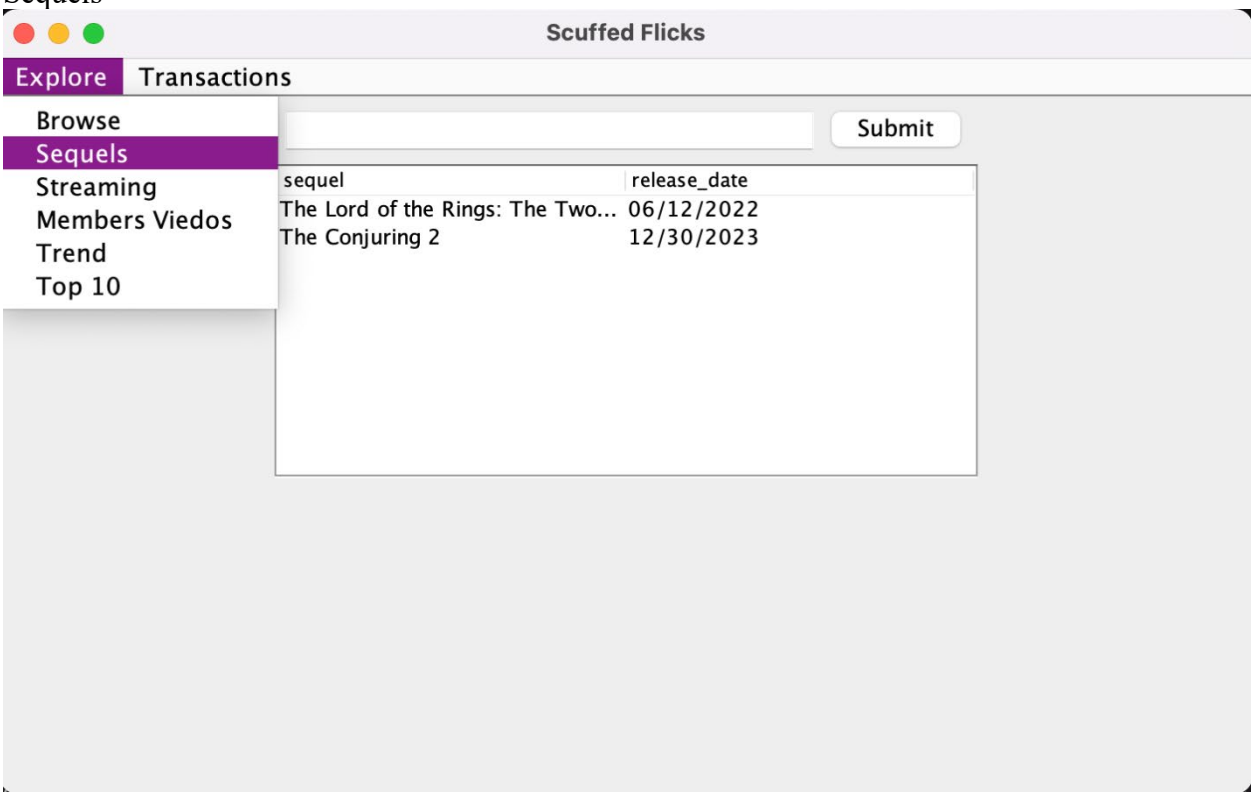
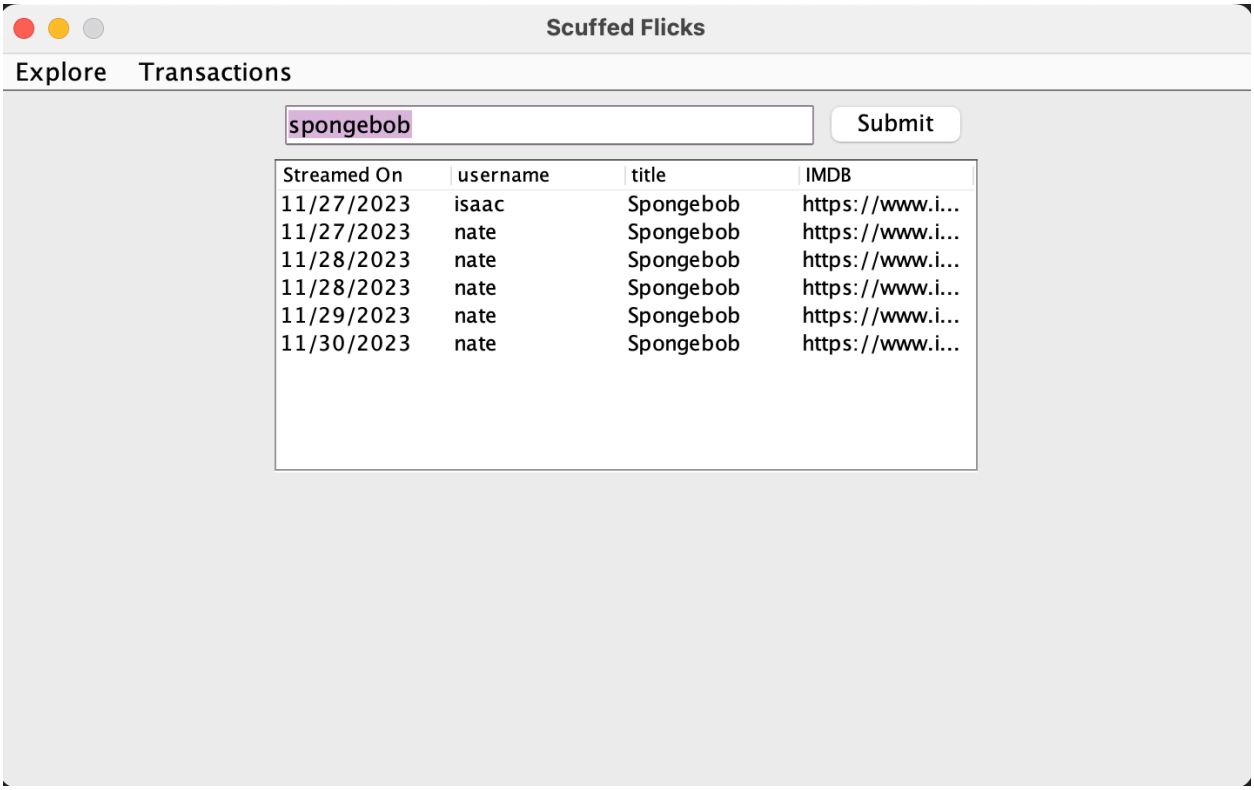
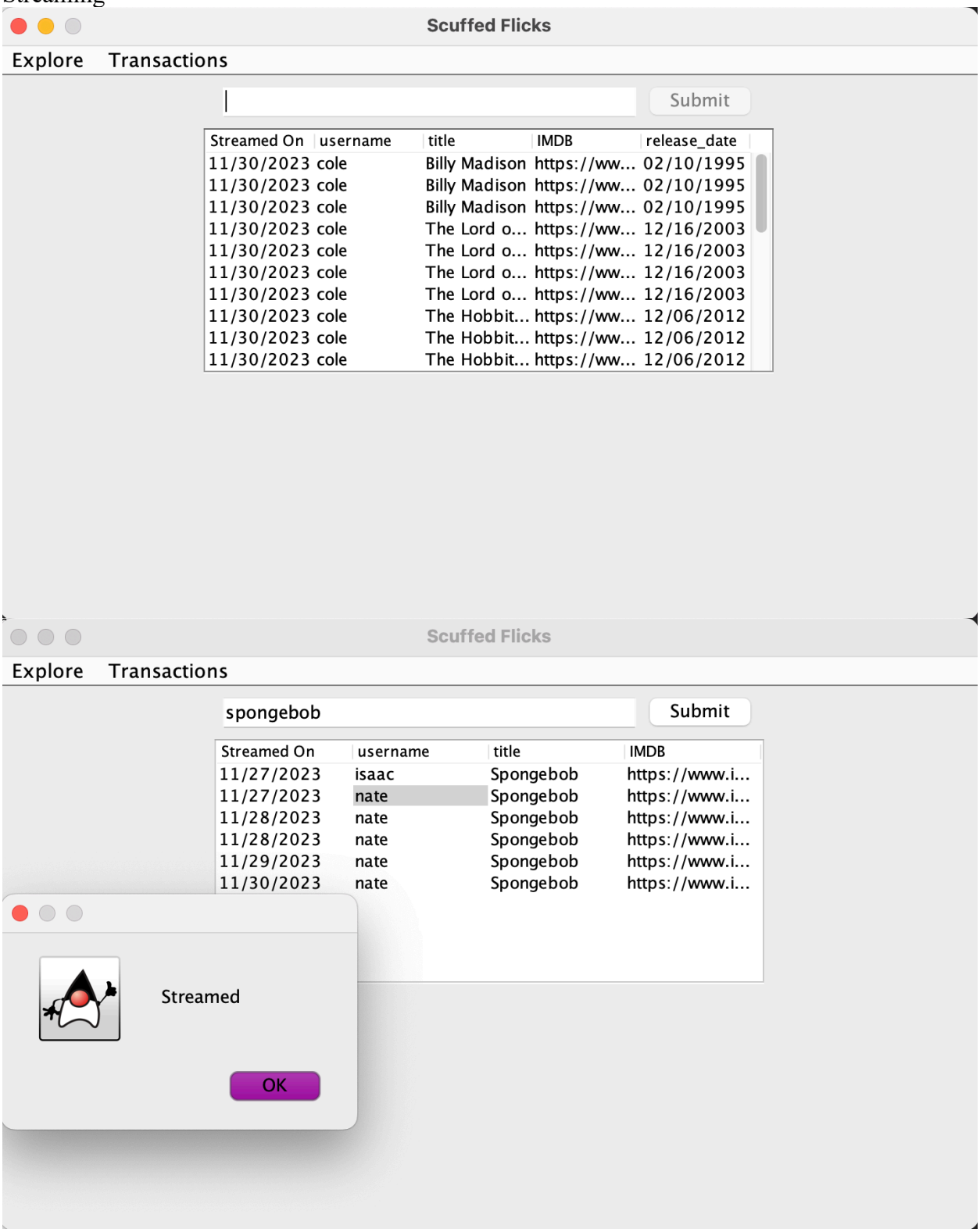
Sequels



Member Videos



Streaming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11/30/2023 cole Billy Madison https://ww... 02/10/1995
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11/30/2023 cole The Lord o... https://ww... 12/16/2003
11/30/2023 cole The Lord o... https://ww... 12/16/2003
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11/30/2023 cole The Hobbit... https://ww... 12/06/2012
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11/30/2023 cole The Hobbit... https://ww... 12/06/2012
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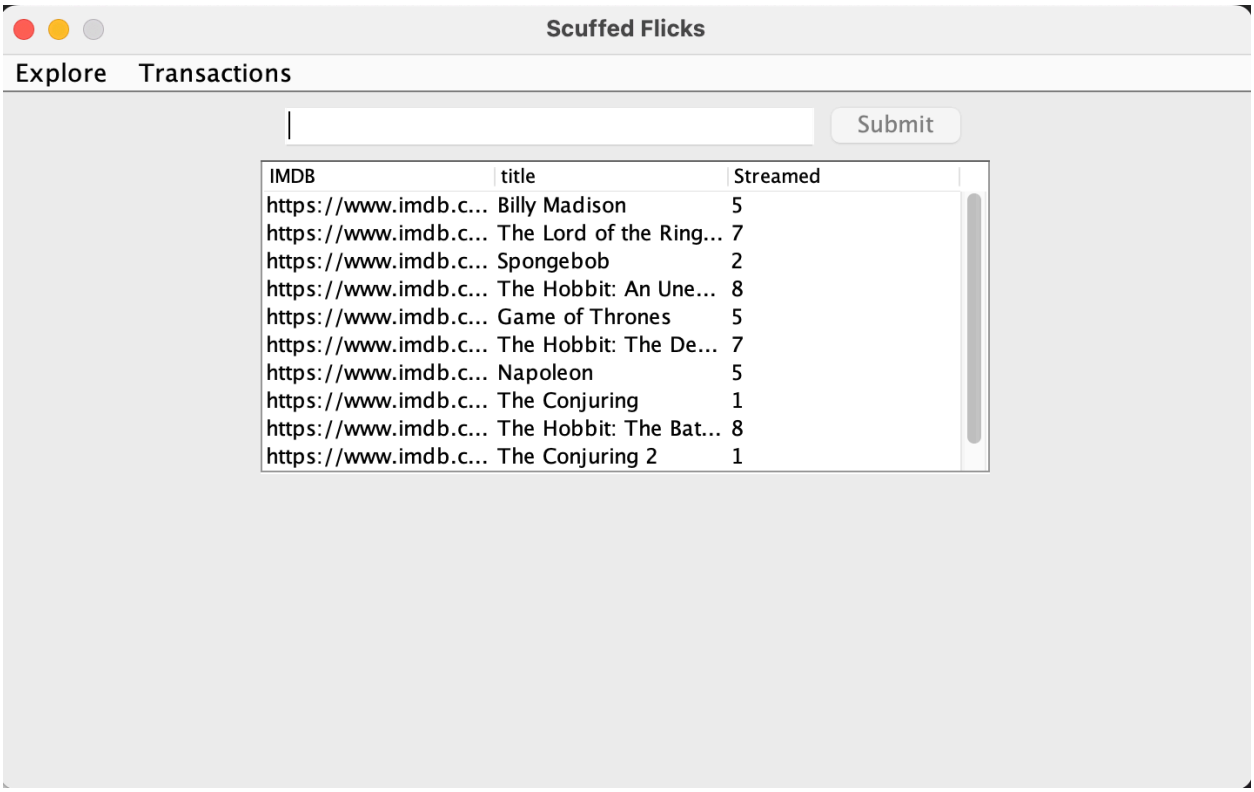
Streamed
OK

Trend


Scuffed Flicks
Explore
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IMDB
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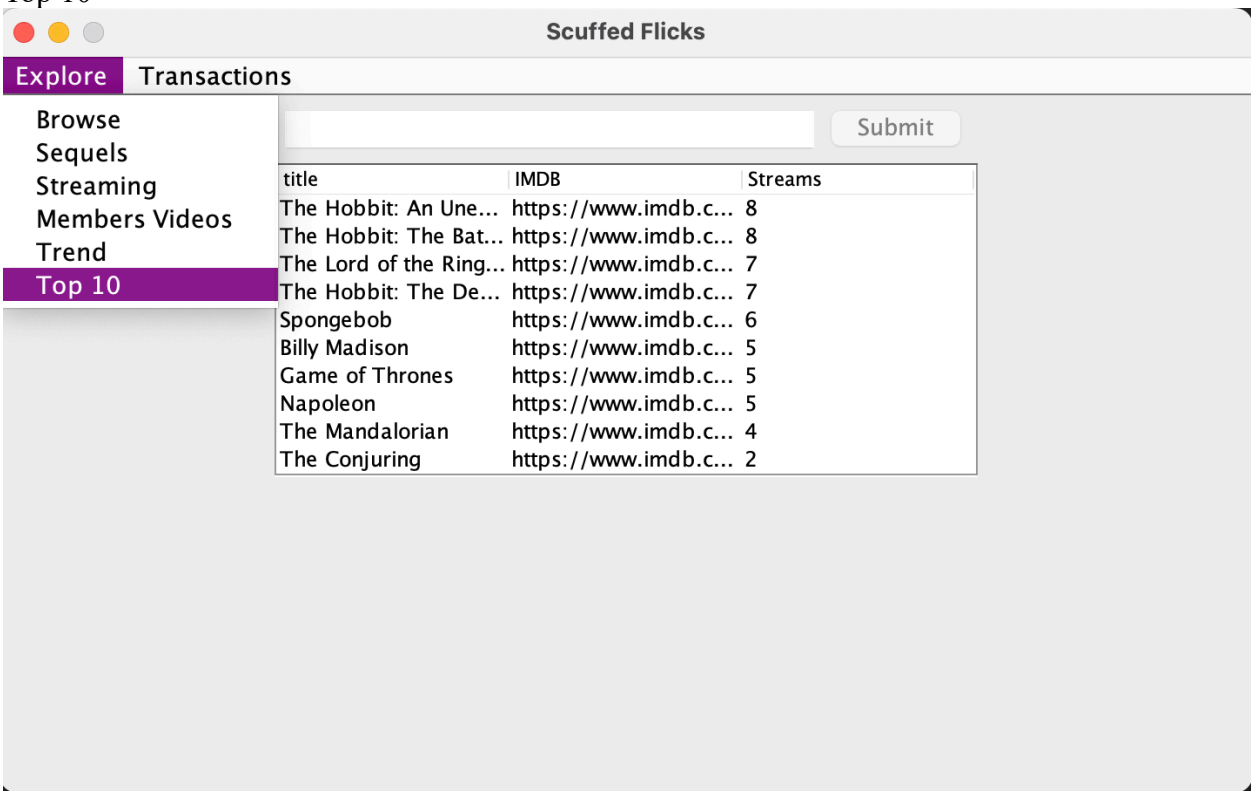
https://www.imdb.c... Billy Madison 5
https://www.imdb.c... The Lord of the Ring... 7
https://www.imdb.c... Spongebob 2
https://www.imdb.c... The Hobbit: An Une... 8
https://www.imdb.c... Game of Thrones 5
https://www.imdb.c... The Hobbit: The De... 7
https://www.imdb.c... Napoleon 5
https://www.imdb.c... The Conjuring 1
https://www.imdb.c... The Hobbit: The Bat... 8
https://www.imdb.c... The Conjuring 2 1

Top 10


Scuffed Flicks
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Members Videos
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Top 10
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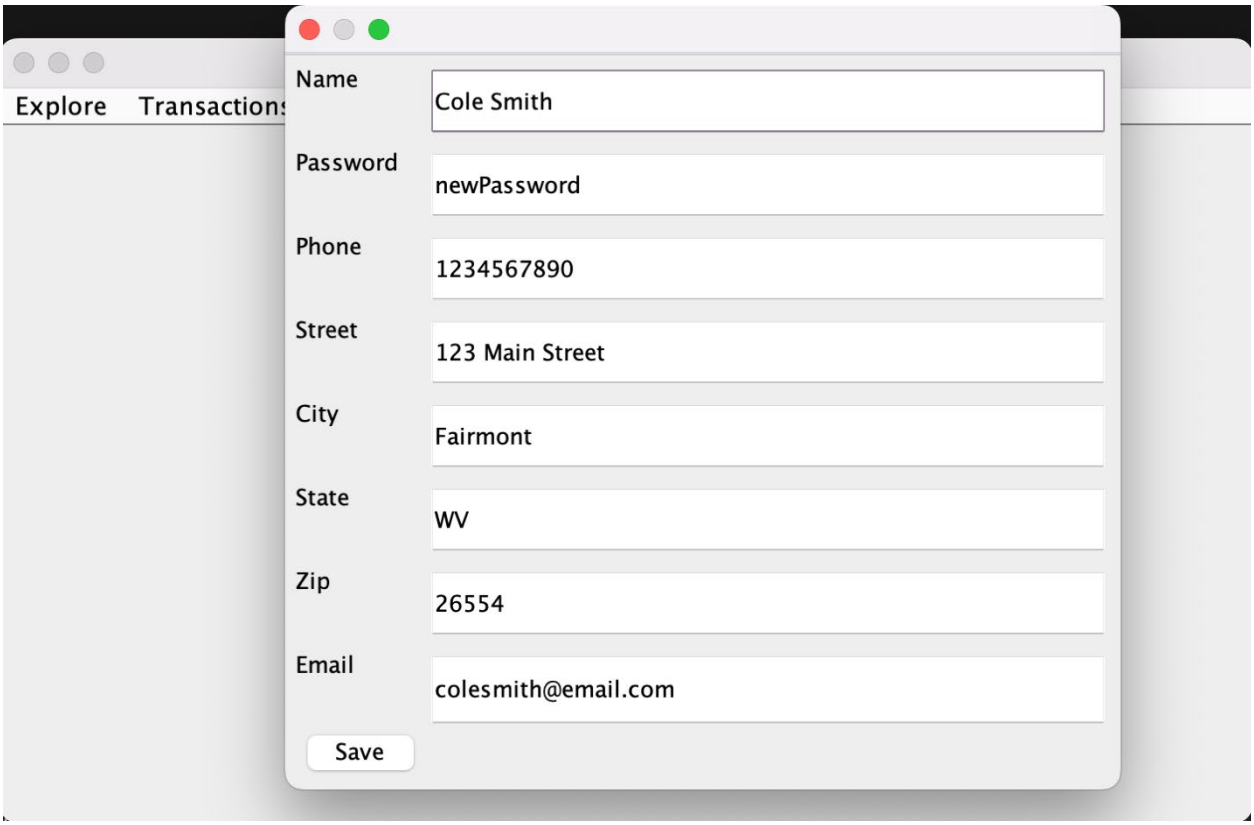
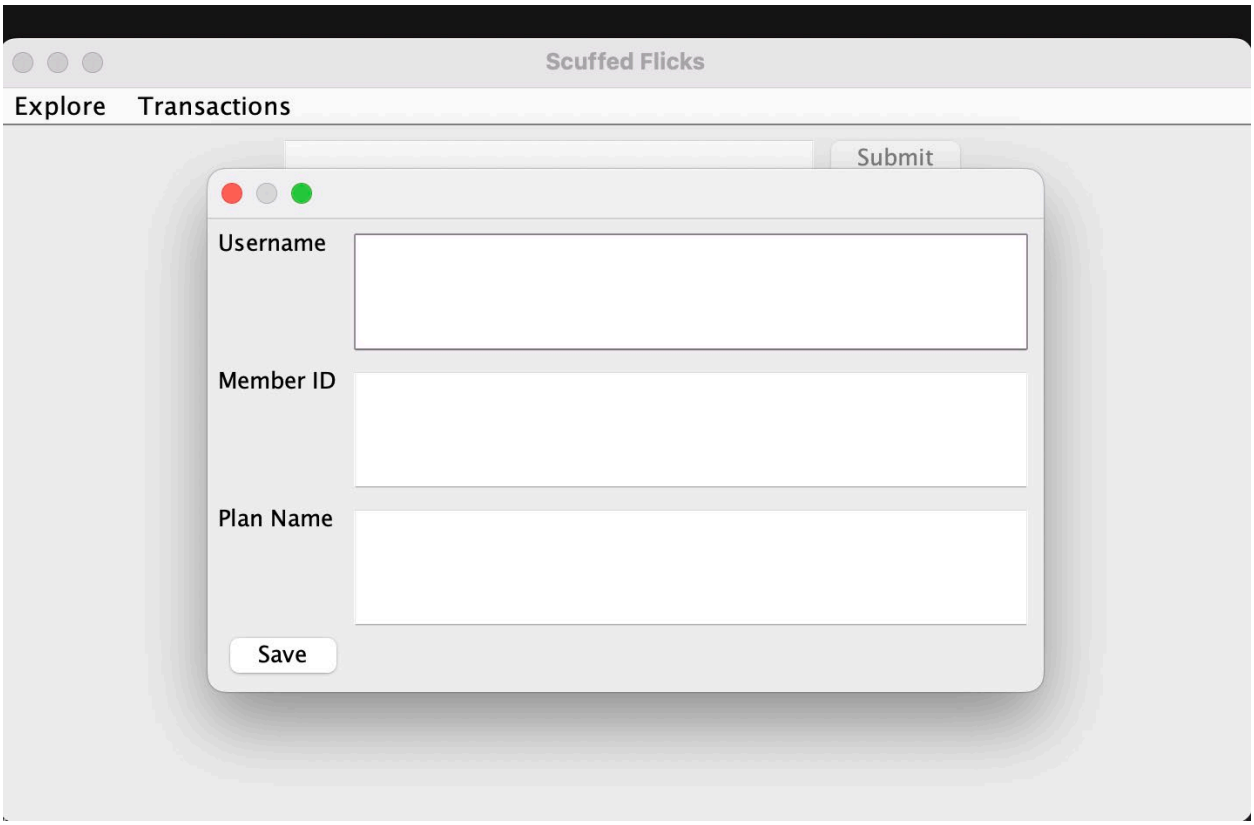
The Hobbit: An Une... https://www.imdb.c... 8
The Hobbit: The Bat... https://www.imdb.c... 8
The Lord of the Ring... https://www.imdb.c... 7
The Hobbit: The De... https://www.imdb.c... 7
Spongebob https://www.imdb.c... 6
Billy Madison https://www.imdb.c... 5
Game of Thrones https://www.imdb.c... 5
Napoleon https://www.imdb.c... 5
The Mandalorian https://www.imdb.c... 4
The Conjuring https://www.imdb.c... 2

Transactions:

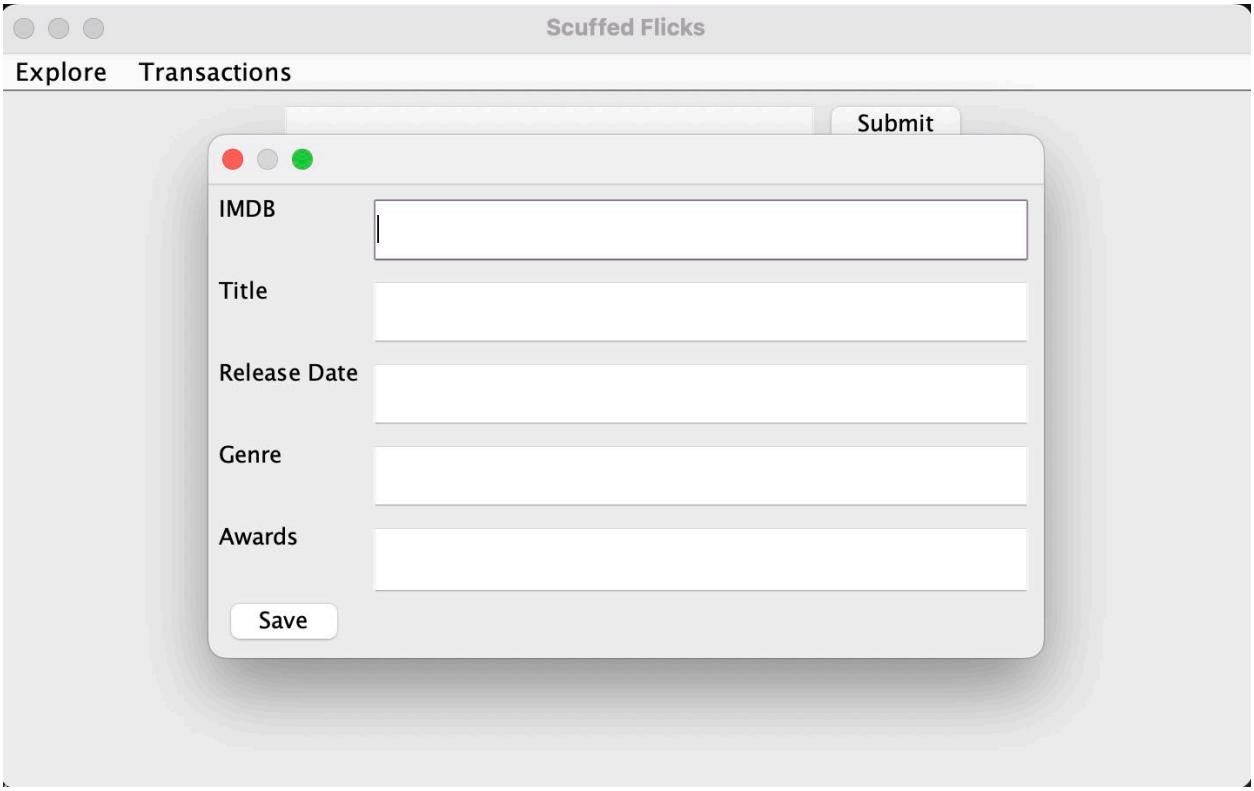
Edit Profile



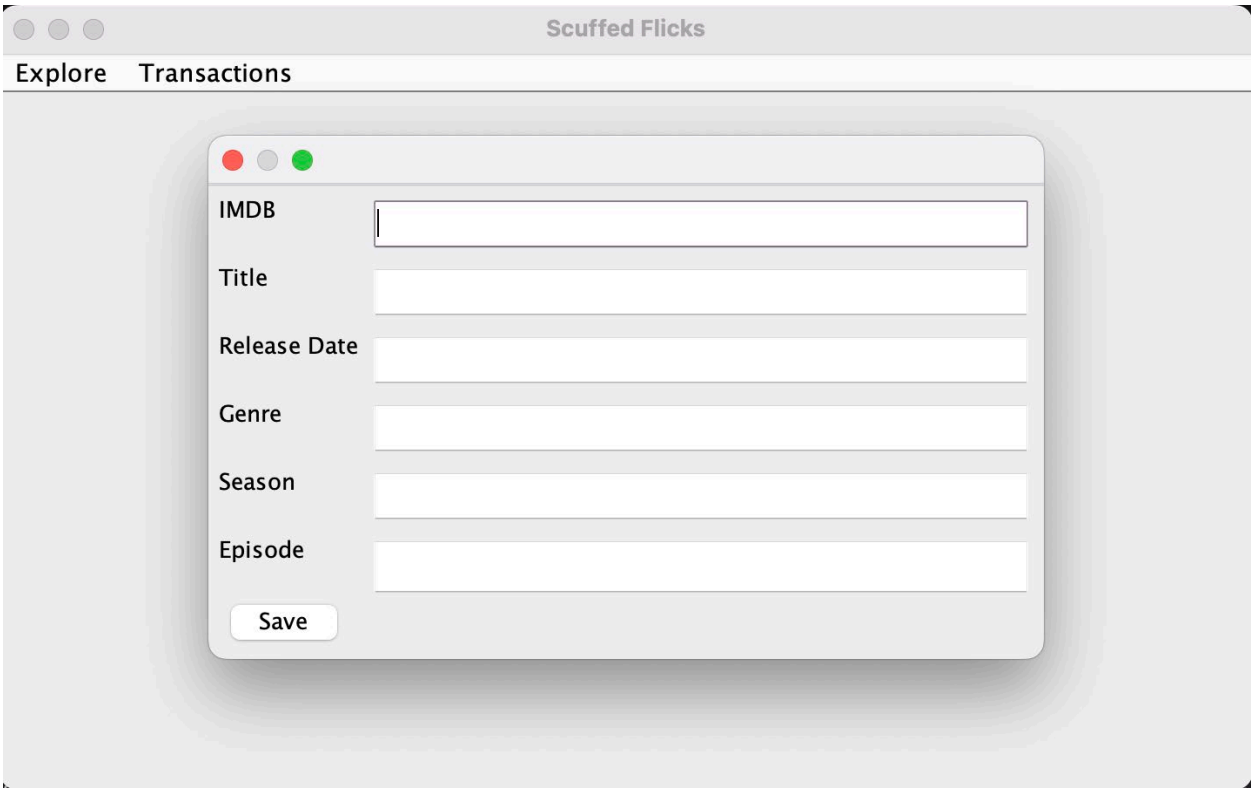
Add Member



Add Movie



Add Series



Trigger used in MYSQL

```
1  CREATE DEFINER=`admin`@`%` TRIGGER `media_AFTER_DELETE` AFTER DELETE ON `media` FOR EACH ROW BEGIN
2      DELETE FROM series
3       WHERE series.IMDB = OLD.IMDB;
4
5       DELETE FROM movies
6       WHERE movies.IMDB = OLD.IMDB;
7  END
```

Limitations of Program:

For the final version of our project the GUI works exactly as intended. All the queries and transactions function as they need to. However, that doesn't mean that there isn't room for improvement. The biggest improvement that can be made about our program would have to be the visuals of the GUI. The buttons could be more intuitive to pull the users to the queries and transaction they may need to use. When doing a transaction, we could add in a visual

representation that pops up to show that the transaction went through without needing to look at the database itself. And we could format the GUI so that the client can resize the window or customize the look of the GUI to their own personal preference. However, these changes wouldn't do anything to affect the way the program works.

If given more time we would also have loved to implement more functionality to the program. Specifically new users being able to create an account from the login screen if they don't already have one as well as being able to click on a part of the cell to open a new window that plays a tailer for the user from the piece of media. Finally, the program could be improved further if we were able to add in triggers for every type of specific transaction that can take place in the program however those would be too numerous to list them all.