**Streaming Services Application**

**References to External Libraries:**

* Java Swing: This is what I used to build the graphical interface (like buttons, tables, and panels) for the app.
* JDBC: This is how the app connects to MySQL to fetch and update data.
* MySQL JDBC Driver: Needed to connect MySQL with Java.
* JTable: Used for displaying data in a table format and making the rows interactive (like adding and removing items).

**Example citation format:**

* Java Swing - Retrieved from <https://docs.oracle.com/javase/8/docs/api/javax/swing/package-summary.html>
* JDBC - Retrieved from <https://docs.oracle.com/javase/8/docs/api/java/sql/package-summary.html>
* MySQL JDBC Driver - Retrieved from <https://dev.mysql.com/downloads/connector/j/>

**Complete Installation Instructions:**

1. **What you’ll need:**
   1. Java Development Kit (JDK): Make sure you have JDK 8 or later.
   2. MySQL Database: Make sure MySQL is installed and running.
   3. MySQL JDBC Driver: You'll also need the MySQL JDBC driver for connecting Java to MySQL.
2. **Steps:**
   1. Download the project files.
   2. Make sure MySQL is running, and create a database called “streaming\_services”.
   3. Run these SQL commands to set up the database schema:
   4. CREATE DATABASE streaming\_services;
   5. USE streaming\_services;
   6. Create necessary tables (in the folder)
   7. Import the MySQL JDBC driver into your project.
   8. In Eclipse, just add the MySQL JDBC JAR file to your project libraries.
   9. Update the database connection details in your code (e.g., username, password, JDBC URL).
   10. Compile and run the Java code.

* **Features:**
  + Search by Title: Type in a movie or TV show title and click Search to find matching results.
  + Search by Platform, Type, and Year: Search for content on specific platforms (Netflix, Hulu, etc.), by type (Movie/TV Show), and by year.
  + Search by Genre: Choose a genre and filter content based on that genre.
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  + Watchlist:
    - Add to Watchlist: Select a movie/show from the search results and click Add to Watchlist to save it.  
      View Watchlist: Click View Watchlist to see everything you've added.
    - Remove from Watchlist: Each item in your watchlist has a Remove button next to it. Click it to remove items from the list.
  + Random Titles: Want a surprise? Hit Surprise me! to get 5 random titles from the database.
* **How to Use:**
  + For Search by Title, just type in the title of a movie or show you're interested in.
  + If you're looking for something on a specific platform, fill out the Search by Platform, Type, and Year section.
  + Choose a Genre and hit Search.
  + Want to add something to your watchlist? Click Add to Watchlist after selecting a title from the search results.
  + To see your saved items, click View Watchlist.
  + You can remove items from your watchlist by clicking Remove next to them in the table.
  + Feeling adventurous? Hit Surprise me! to get 5 random titles.

**Optional Comments or Instructions**

Primary Keys and Relationships:

If you added primary keys to tables or related data, describe how. For instance, the ‘content\_platform’ table connects the ‘Content’ and ‘Platform’ tables with a composite key. Use ‘content\_id’ and ‘platform\_id’ to ensure that a movie/show can appear on multiple platforms, and vice versa.

Here's an example:

CREATE TABLE content\_platform (  
 content\_id INT,  
 platform\_id INT,  
 PRIMARY KEY (content\_id, platform\_id),  
 FOREIGN KEY (content\_id) REFERENCES content(content\_id),  
 FOREIGN KEY (platform\_id) REFERENCES platform(platform\_id)  
 );

Error Handling:

The app handles various errors, like when the database connection fails or the user enters invalid input (e.g., invalid title or year). These errors are caught and displayed using ‘JOptionPane’ popups to notify users about the issue.