Entertainment Library Project Report

# Introduction

The purpose for this project is to help users keep track of what books, movies, and video games they already own. Currently the number of options available for customers to purchase their entertainment can be overwhelming for many people. The Entertainment Library aims to help people avoid paying for a product they already own. Another important feature included is the ability to rate every single item in your collection on a scale 5-star scale. This provides an easy way for people to score and personalize their experience with the program. This application is specially aimed for collectors of physical and digital media. A database is used to store the given information for any book, movie, or video game, which contains information regarding the identifying features for these 3 categories. Features like format, rating, digital supplier, etc.

# Implementation

As stated before, the Entertainment Library program provides 3 categories of media for users to store information about. Information about the implementation and all the features available for these categories will be described in the following sections.

## Books:

All of the information entered for the book category is stored in the database “EntertainmentLibrary” in the “Books” table. Features like book name, format, genre, rating, and digital supplier are available to create a book item in the database. Stored procedures “spBooks\_Delete”, “spBooks\_GetAll”, and “spBooks\_Insert” will delete, return a list of all books, and insert a new book in the database respectively. In the Entertainment Library a list of all books in the database is shown when launching the program. From here you have the option to either create a new book, get information for the selected book, or delete the selected book. When you click on the create book button, an emerging window will appear asking for the following information:

* Book Name – The title of the book being saved (Required).
* Book Format – Three book formats are selectable as radio buttons (Required).
  + Paperback
  + Hardcover
  + eBook
* Book Genre – The genre of the book being saved.
* Book Rating – A 5-star rating system for the book being saved.
* Digital Supplier – A dropdown list to select the digital supplier for the book being saved.
  + Add New Supplier – When clicked, another emerging window will appear asking for the following information:
    - Supplier Name
    - URL
  + Refresh button – Will refresh the dropdown list with all the digital suppliers available.
* Add Book button – Will create a new book in the database with the information given.

When clicking the book information button, a new emerging window will appear showing the stored information for the selected book. Finally, the delete book button will delete the selected book from the database and update the listing in the program accordingly.

## Movies:

All of the information entered for the movie category is stored in the database “EntertainmentLibrary” in the “Movies” table. Features like movie name, format, genre, length (not implemented), rating, and digital supplier are available to create a movie item in the database. Stored procedures “spMovies\_Delete”, “spMovie\_GetAll”, and “spMovies\_Insert” will delete, return a list of all movies, and insert a new movie in the database respectively. In the Entertainment Library a list of all movies in the database is shown when launching the program. From here you have the option to either create a new movie, get information for the selected movie, or delete the selected movie. When you click on the create movie button, an emerging window will appear asking for the following information:

* Movie Name – The title of the movie being saved (Required).
* Movie Format – Five movie formats are selectable as radio buttons (Required).
  + VHS
  + DVD
  + Blu-ray
  + 4k Blu-ray
  + Digital
* Movie Genre – The genre of the movie being saved.
* Movie Rating – A 5-star rating system for the movie being saved.
* Digital Supplier – A dropdown list to select the digital supplier for the movie being saved.
  + Add New Supplier – When clicked, another emerging window will appear asking for the following information:
    - Supplier Name
    - URL
  + Refresh button – Will refresh the dropdown list with all the digital suppliers available.
* Add Movie button – Will create a new movie in the database with the information given.

When clicking the movie information button, a new emerging window will appear showing the stored information for the selected movie. Finally, the delete movie button will delete the selected movie from the database and update the listing in the program accordingly.

## Video games:

All of the information entered for the video game category is stored in the database “EntertainmentLibrary” in the “Games” table. Features like game name, format, platform, rating, and digital supplier are available to create a video game item in the database. Stored procedures “spVideogames\_Delete”, “spVideogame\_GetAll”, and “spVideogames\_Insert” will delete, return a list of all video games, and insert a new video game in the database respectively. In the Entertainment Library a list of all video games in the database is shown when launching the program. From here you have the option to either create a new video game, get information for the selected video game, or delete the selected video game. When you click on the create video game button, an emerging window will appear asking for the following information:

* Video game Name – The title of the video game being saved (Required).
* Video game Format – Three video game formats are selectable as radio buttons (Required).
  + Disc
  + Cartridge
  + Digital
* Video game Platform – A list of 5 possible platforms to select from.
  + PS4
  + PS5
  + XBOX ONE
  + XBOX SERIES
  + NINTENDO SWITCH
  + PC
* Create New Platform – When clicked, another emerging window will appear asking to enter a new platform to add to the platform list.
* Video game Rating – A 5-star rating system for the video game being saved.
* Digital Supplier – A dropdown list to select the digital supplier for the video game being saved.
  + Add New Supplier – When clicked, another emerging window will appear asking for the following information:
    - Supplier Name
    - URL
  + Refresh button – Will refresh the dropdown list with all the digital suppliers available.
* Add Video game button – Will create a new video game in the database with the information given.

When clicking the video game information button, a new emerging window will appear showing the stored information for the selected video game. Finally, the delete video game button will delete the selected video game from the database and update the listing in the program accordingly.

# Problem Solving

When coding the Entertainment Library Project multiple issues appeared. Issues like syntax errors and the like were usually fixed within minutes by carefully analyzing the code. Logical errors (the code was missing features to properly work), initially took longer to solve. The Book section of the Entertainment Library was the first feature to be implemented, therefore it took the longest time to create compared to the Movie and Video game sections. Additionally, since all three sections (Books, Movies, and Video games) had similar components, their implementation became more straightforward with each iteration. The connection to the database “EntertainmentLibrary” was carried out without many errors. One noteworthy issue I encountered was that the “IDbConnection” in the “SqlConnector” file needs to take in the exact parameters as the elements in the table it is referencing in the database. For example, while creating the Movie model, I had excluded the “MovieLength” identifier. These caused the program to not properly make the connection to the Movies table in the database since it was expecting a value it did not get. Once I included the missing identities in the Movie Model and the ”SqlConnector” file, the program ran successfully.

# Conclusion

The purpose for the Entertainment Library program is to help users keep track of the media they own. It provides an easy to way to store information like personal reviews and the digital source for any digitally owned item. By using the Entertainment Library, users will save money on unnecessary purchases for items they already own.