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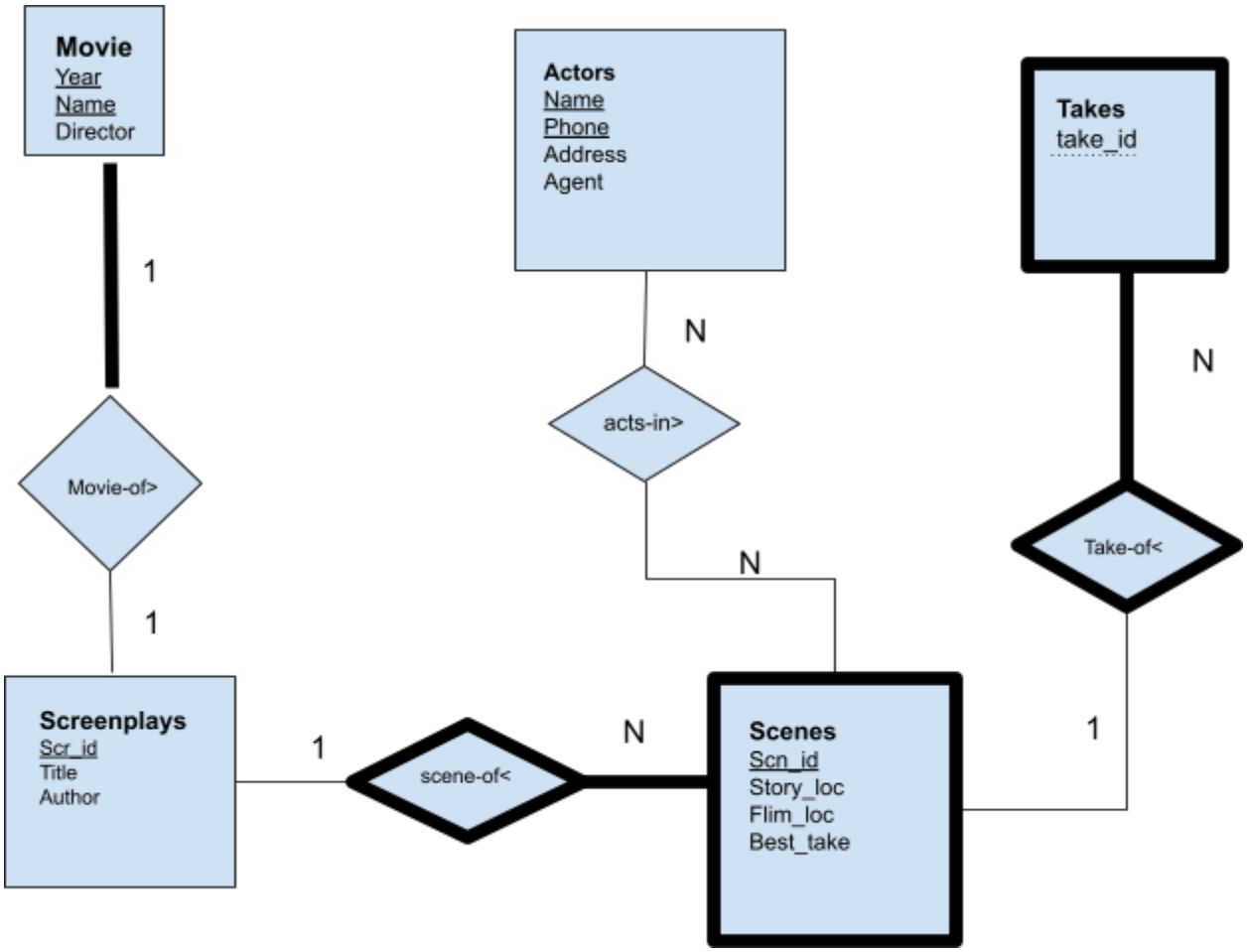
COMP3005B Assignment 2

Q1. Bold lines indicate weak relationships and bold borders indicate weak entities.

Assumption: Some scenes may not have been filmed yet (i.e. takes may not exist for those scenes)



Schema:

Movie

Name	Year	Director

Screenplays

Scr_id	Title	Author

Scenes

Scn_num	Scr_id	Story_loc	Film_loc	Best_take

Scr_id is foreign key referring to Screenplays table Scr_id

Actors

Name	Phone	Address	Agent

Takes

Take_id	Scn_num	Scr_id

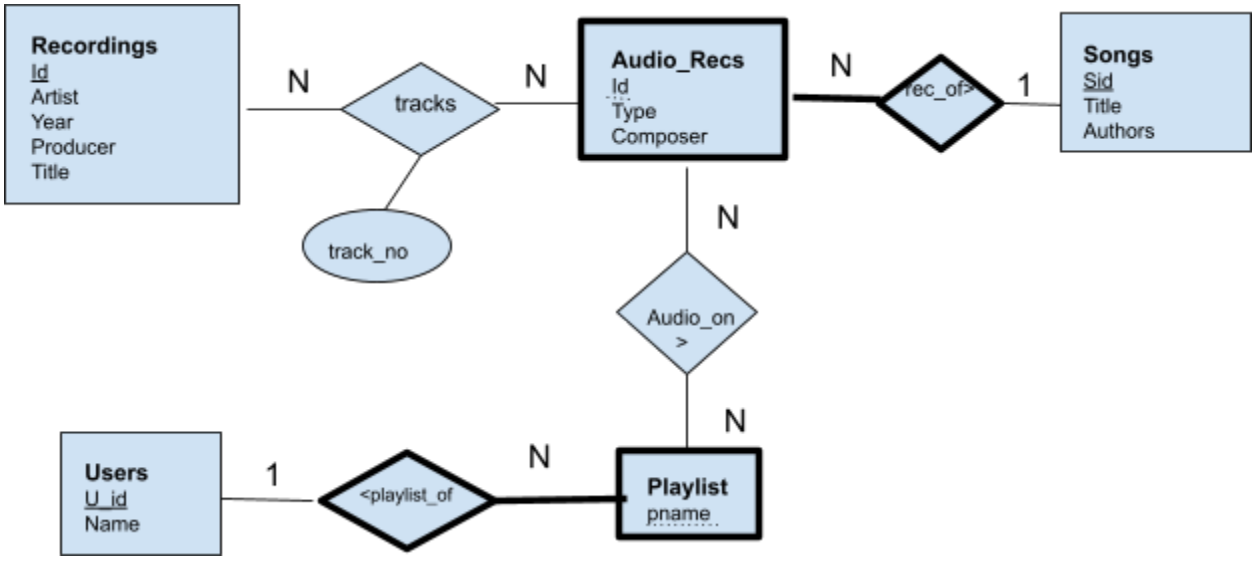
Scn_num and Scr_id form a compound key referring to Scenes table columns Scn_num and Scr_id

Scene_Actors

Scn_num	Scr_id	Name	Phone

Scn_num and Scr_id form a compound key referring to Scenes table columns Scn_num and Scr_id while Name and Phone form a compound key referring to Actors table columns Name and Phone

Q2. Bold lines indicate weak relationships and bold borders indicate weak entities.



Schema:

Recordings

Id	Artist	Year	Producer	Title

Songs

Sid	Title	Authors

Audio_Recs

Id	Sid	Type	Composer

Sid is foreign key referring to Songs table Sid

Playlists

Pname	U_id

U_id is foreign key referring to Users table Uid

Users

U_id	Name

Playlist_Tracks

U_id	Pname	A_id	Sid

U_id and Pname form a compound key referring to Playlists table columns Pname and U_id while A_id and Sid form a compound key referring to Audio_Recs table columns Id and Sid

Recording_Tracks

Track_no	R_id	A_id	S_id

A_id and Sid form a compound referring to Audio_Recs table columns Id and Sid while R_id is a foreign key referring to Recordings table Id

Q4.

Game Catalogue DB Project Proposal Background

This project proposal is primarily inspired by popular video game launchers like Steam and Epic Games Launcher. A game catalogue will help avid gamers in organizing all their games in one place. It will also allow users to create profiles and connect with other people who are probably playing the same games.

Game launchers work as video game catalogues too and enable users to browse many available games they wish to purchase in one place instead of working their way through each different video game developer's website. It is probably evident by now that a game launcher's main selling point is convenience.

Another plus I would say is they help to build a community. Both of these will be incorporated in a game catalogue.

On PC, the Steam launcher is probably the most popular platform in the world currently, so much so that the company behind the platform stopped developing games to fully focus on the platform.

Application Requirements

The following points describe what is required from the application:
1. Create a database that has different tables for users, games, friends, user game library, etc.
2. Enable users to publish their own games (games developed by the user) on the platform.

3. Allow users to search for games they wish to purchase and provide available purchase options.
4. Allow users to edit their game library: adding or removing games.
5. View the number of people playing a specific game, a game's launch date, genre and other info.
If the size of the database is average, it should allow a user to see the entire list of users who are playing a specific game. Otherwise, if there is too much data, it should only allow a user to see which friends are playing that game. This would be decided later in the course.
6. A user will have a unique user ID, a list of games they have published, a game library (list of games they have purchased) and a list of friends for now.
7. A game will have a unique game ID, number of people who own the game, a list of available purchase options, genre and developer's user ID.
8. It should allow a user to search for other users to make friends with or to remove existing friends.
9. The application will probably be web-based so it would be hosted on a web browser like Chrome, Safari, etc.

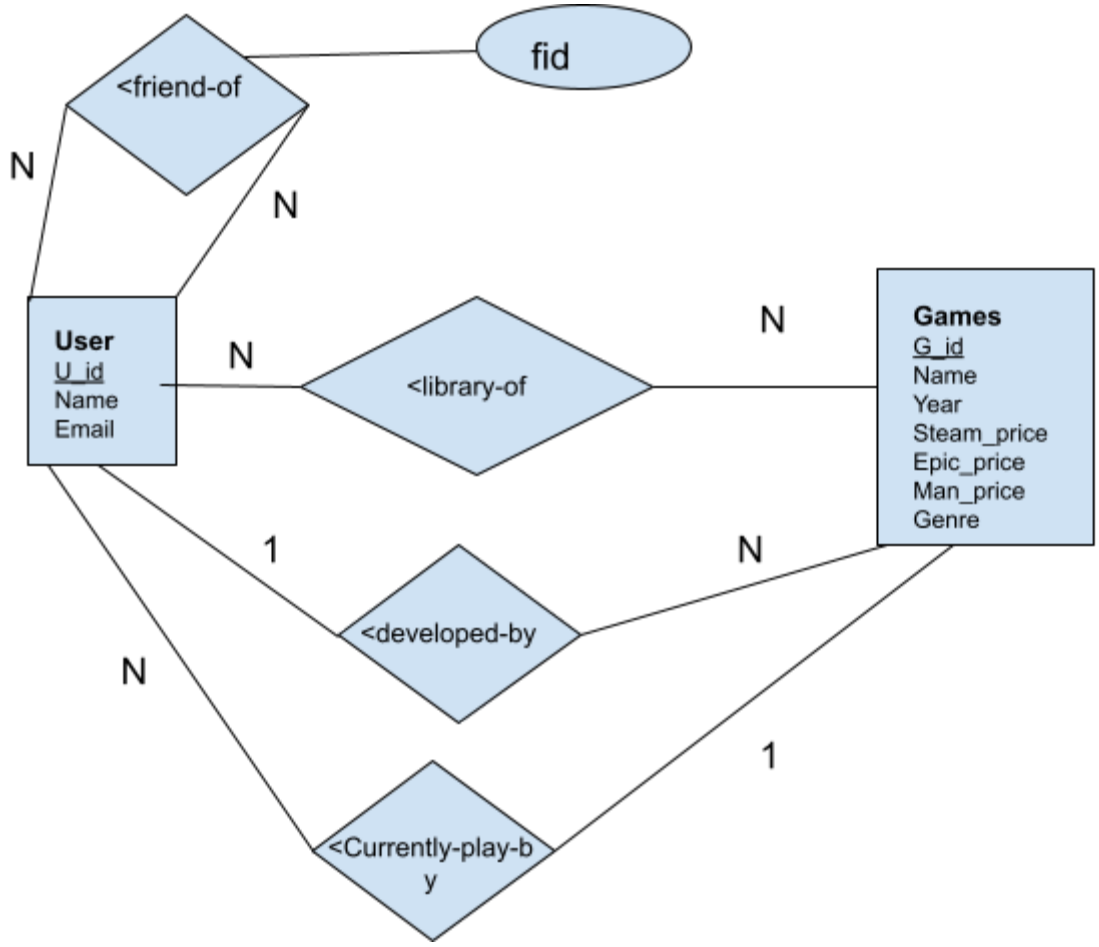
Due Diligence (Copyright Issues)

Since this database will only be cataloging games with a description of the game (like release date, developer name, etc.) and user information like the games they have in their library, the friends they have in their friends list, it is my belief that I would not be in violation of any copyrights in making a database, or application, public.
While I know that it is illegal to reproduce intellectual property of an individual, it is not illegal to catalog them. In other words, it is not illegal to build and publish a database of different games with descriptions and user created libraries.

Notes

For now, I only have two entities but as I work on this project I might add more if required. I have four relationships: 2 N:N, 2 1:N.

ER Diagram



Schema:
Users

U_id	Name	Email	curgame_id

Games

G_id	Name	Year	Steam_price	Epic_price	Manu_price	Genre	Dev_id

Dev_id is a foreign key referring to Users table U_id

Friends

U_id	F_id

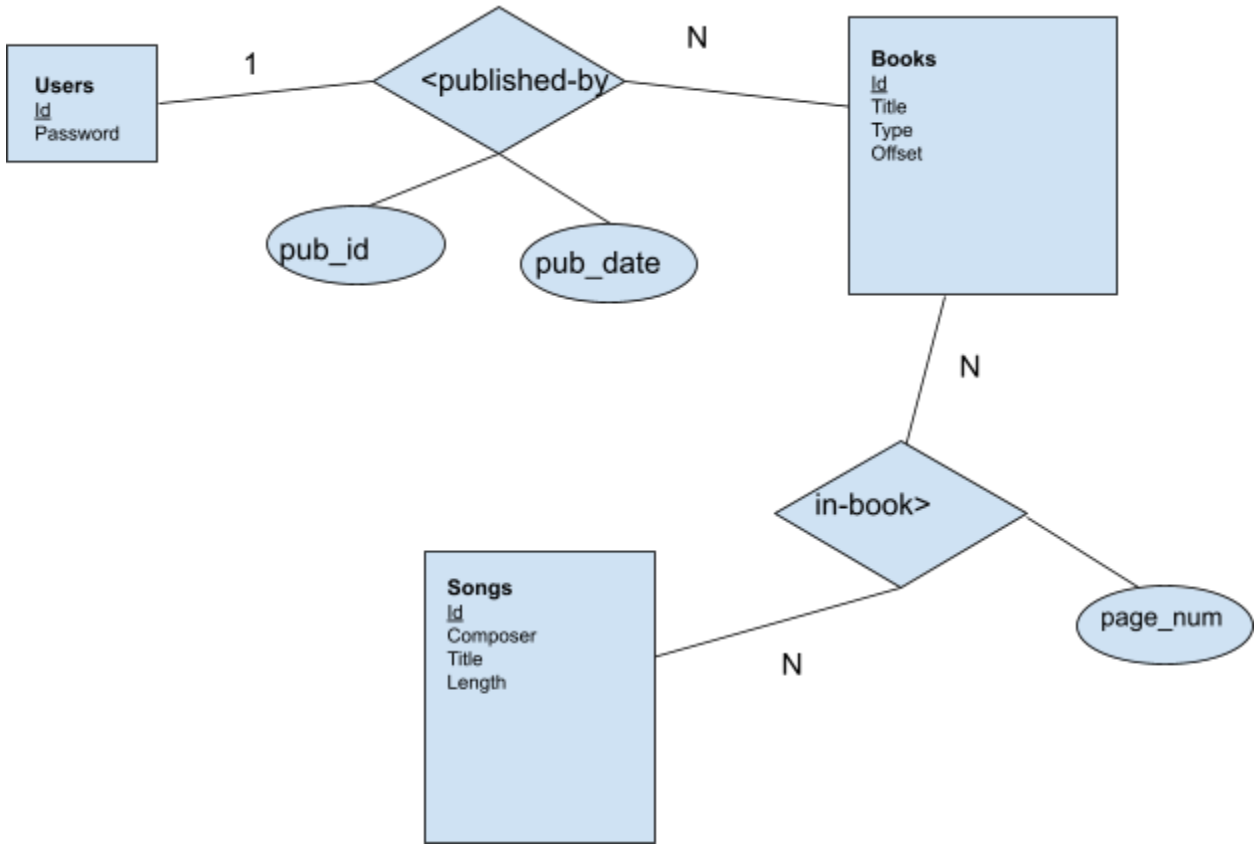
U_id and F_id are foreign keys referring to Users table U_id

Library

Game_num	U_id	G_id

U_id and G_id are foreign keys referring to Users table U_id and Games table G_id respectively

Q3.



Schema:
Users

Id	Password

Books

Id	Title	Type	Offset	Pub_Id	Pub_date

Pub_Id is foreign key referring to Users table Id

Songs

Id	Composer	Title	Length

Songs_in_book

Page_num	S_id	B_id

S_id and B_id are foreign keys referring to Songs table Id and Books table Id respectively