(1) Brief Overview of the Application:

I have developed an application called "GameHub" for game reviews and ratings. The application allows users to browse a list of games, view detailed game information, read and post game reviews. Users can also register and log in to post their own reviews.

(2) Demonstration of the Application Itself, Including All Implemented Features:

Users can access the homepage to view the list of games.

Clicking on a game title allows users to view detailed game information, including name, description, release date, and more.

On the game details page, users can view reviews and ratings posted by other users.

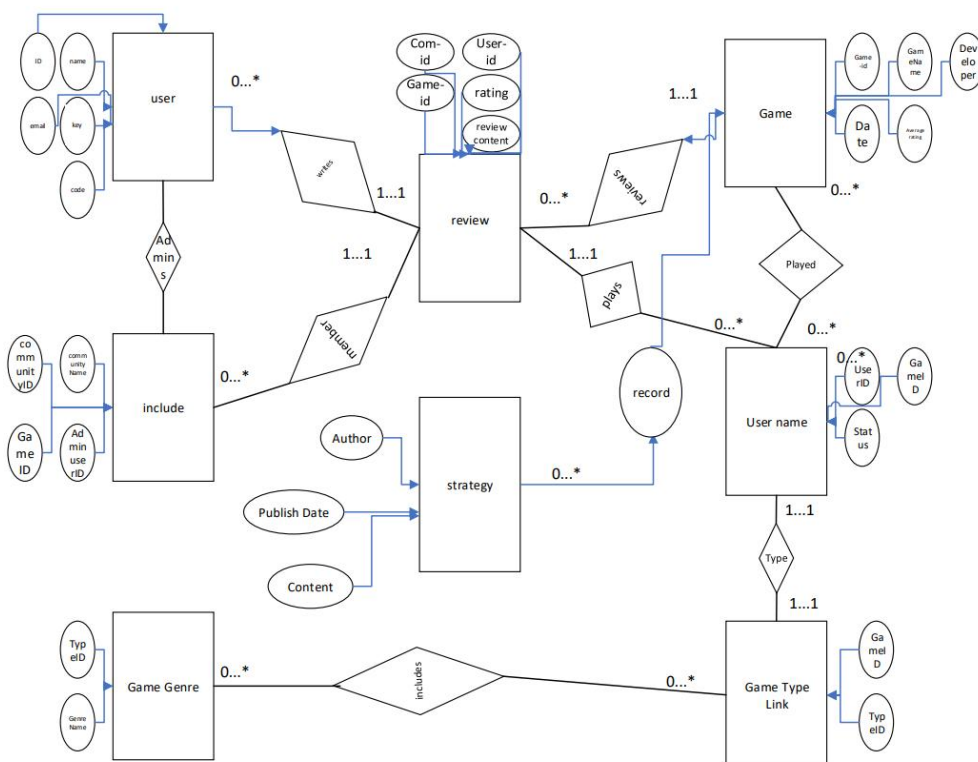Users can use the search box to find specific games.

Users can register and log in to post their own reviews.

After logging in, users can post reviews and ratings on the game details page.

Users can browse posts made by other users on the forum page.

Users can use more advanced query functions, such as sorting games or reviews by rating, release date, and more.

(3) Demonstration of the ER Diagram:

(4) Demonstration of More Complex Queries Used in the Application:

SELECT * FROM Users WHERE username = ?'

'SELECT * FROM GameInformation WHERE GameName = ?'

'SELECT * FROM GameInformation WHERE GameID = ?'

INSERT INTO Users SET ?'
SELECT * FROM GameReviews WHERE Author = ?

(5) Description of the Method Used to Populate Application Data:

I used a database seeding script that contains example data for games, users, reviews, and more. I ran this script to insert data into the database for use in the application.

(6) Overview of Testing the Application:

I conducted unit testing and end-to-end testing to ensure the functionality of the application. Unit testing was used to test specific features or components, while end-to-end testing simulated user interactions within the application. Testing covered user registration, login, review posting, game browsing, and more.

(7) List of Non-Working Items and/or Challenges Encountered:

Complexity of User Login and Authentication: Implementing user registration and login features presented challenges related to authentication and password encryption.
Database Query Performance: Dealing with a large volume of game and review data required query optimization for improved performance.
User Interface Design: Designing a user-friendly and visually appealing interface posed a challenge, and ongoing improvements are being made.
(8) Next Steps If Continuing Development of the Application:

Implement user profile pages to allow users to update their information.
Introduce a messaging feature for communication between users.
Add more advanced search and filtering options to provide more precise search results.
Create an admin functionality to manage users, games, and reviews.
Support additional languages and themes.
Enhance data analysis and reporting features to provide insights into game reviews and user behavior.
Instructions for Installing and Running the Application:

Clone the application code repository to your local computer.
Install the required dependencies, such as Node.js, and set up the database.
Run the database seeding script to initialize the data.
Start the application server.

express: This is the Express.js framework for building web applications.
npm install express

mysql2: This package allows you to interact with MySQL databases.
npm install mysql2

ejs: This package is for rendering HTML templates using EJS (Embedded JavaScript).
npm install ejs

LINK: https://youtu.be/yOPW1DTAus0