

Streaming Service Database System Project Report

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CSC 675 Intro to Database Systems

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Streaming Service Database System: Final Testing & Analysis Report

Project Overview

The project is centered around a MySQL database that models a streaming platform. Here's a summary of the main components:

- ***Users:*** *Registered users with profiles, watchlists, and subscriptions.*
- ***Content:*** *Movies and TV shows, each with associated genres, directors, actors, and countries of origin.*
- ***Watchlist:*** *Users can add content to their watchlists, with a trigger to enforce a maximum of 50 items.*
- ***Ratings and Reviews:*** *Users can rate and review content, which feeds into recommendations and content availability.*
- ***Transactions:*** *Tracks user payments and logs any negative transaction attempts.*
- ***Administrative Tables:*** *Includes error logs and tables for tracking problematic assignments (like duplicate directors).*

- ***Scheduled Events:*** *Periodic cleanup and maintenance tasks, such as archiving content with persistently low ratings.*

Database Schema

The schema includes tables for users, content, actors, directors, genres, countries, watchlists, reviews, ratings, transactions, and mapping tables for many-to-many relationships. We put a lot of effort into getting the foreign key relationships right, especially since they're critical for the data integrity.

Some highlights:

- ***Mapping Tables:*** *For things like `Content_Genre`, `Content_Actor`, and `Content_Director`, to support many-to-many relationships.*
- ***Error_Log Table:*** *Central place for all errors and trigger-logged events.*
- ***Director_Assignment_Errors:*** *Tracks attempts to assign the same director to the same content more than once.*

ETL Process

The ETL script (`etl_load_data.py`) is responsible for loading initial data from a CSV file into the database. It uses pandas for data manipulation and SQLAlchemy for database operations.

We made sure to:

- *Load data in the right order to respect foreign key constraints.*
- *Clean up tables before each run to avoid duplicate entries.*
- *Handle missing or malformed data gracefully.*

Triggers and Business Logic

- **Watchlist Limit Trigger (`trg_watchlist_limit`)**

Ensures users can't have more than 50 items in their watchlist. If a new item is added beyond the limit, the oldest is removed automatically.

- **Unique Director Trigger (`trg_unique_director`)**

Prevents assigning the same director to the same content more than once, and logs the attempt.

- **Negative Transaction Logging (`trg_log_transaction_error`)**

Catches and logs any attempt to insert a negative transaction amount.

- **Archive Content on Low Rating (`trg_archive_content_on_low_rating`)**

If the average rating for a piece of content drops below 2.0, the content is automatically archived and the event is logged.

Common issue: we ran into a lot of syntax errors with triggers at first—especially forgetting to drop old triggers before creating new ones, and sometimes having stray words or lines in the SQL file. Cleaning up the SQL scripts and always using `DROP TRIGGER IF EXISTS` before each trigger fixed these problems.

Scheduled Events

*I set up scheduled events to automate maintenance tasks. For example, there's an event that checks for content with persistently low ratings and archives it, ensuring the platform doesn't promote unpopular content. I verified these by checking the **Error_Log** table after the events ran.*

Results of Testing

<i>Test Case</i>	<i>Input/Action</i>	<i>Expected Output</i>	<i>Actual Output</i>	<i>Pass/Fail</i>	<i>Issue & Resolution</i>
<i>Schema Creation</i>	<i>Run schema.sql</i>	<i>All tables created, no FK errors</i>	<i>Success after disabling FK checks</i>	<i>Pass</i>	<i>Had to add FK disable/enable for clean drops</i>

<i>ETL Load</i>	<i>Run</i>	<i>Data</i>	<i>Loaded</i>	<i>Pass</i>	<i>Needed clean,</i>
	<i>etl_load_data.py</i>	<i>loaded into</i>	<i>successfully</i>		<i>empty tables</i>
		<i>all tables</i>	<i>after schema</i>		<i>before ETL</i>
			<i>cleanup</i>		
<i>Watchlist</i>	<i>Insert >50 items</i>	<i>Only 50</i>	<i>Works as</i>	<i>Pass</i>	<i>Syntax errors</i>
<i>Limit</i>	<i>for a user</i>	<i>items,</i>	<i>expected</i>		<i>fixed by cleaning</i>
<i>Trigger</i>		<i>oldest</i>			<i>trigger file</i>
		<i>removed</i>			
<i>Unique</i>	<i>Assign same</i>	<i>Error and</i>	<i>Error raised,</i>	<i>Pass</i>	<i>Added DROP</i>
<i>Director</i>	<i>director twice</i>	<i>log entry</i>	<i>log written</i>		<i>TRIGGER IF</i>
<i>Trigger</i>					<i>EXISTS before</i>
					<i>CREATE</i>

<i>Archive on</i>	<i>Insert low ratings</i>	<i>Content</i>	<i>Works as</i>	<i>Pass</i>	<i>Syntax errors</i>
<i>Low Rating</i>	<i>for content</i>	<i>archived,</i>	<i>expected</i>		<i>fixed, ensured</i>
		<i>log entry</i>			<i>triggers dropped</i>
		<i>made</i>			<i>first</i>

<i>Negative</i>	<i>Insert negative</i>	<i>Error</i>	<i>Log entry</i>	<i>Pass</i>	<i>Confirmed</i>
<i>Transaction</i>	<i>transaction</i>	<i>logged in</i>	<i>created</i>		<i>Error_Log entry,</i>
		<i>Error_Log</i>			<i>fixed syntax</i>
		<i>g</i>			

<i>Scheduled</i>	<i>Wait for/trigger</i>	<i>Log entries</i>	<i>Log entries</i>	<i>Pass</i>	<i>Verified by</i>
<i>Events</i>	<i>scheduled event</i>	<i>in</i>	<i>confirmed</i>		<i>checking</i>
		<i>Error_Log</i>			<i>Error_Log table</i>
		<i>g</i>			

Performance Insights

- ***Query Performance:***

Most queries ran quickly, even with joins on mapping tables. I added indexes on key columns (like `user_id`, `content_id`) to keep things fast.

- ***ETL Speed:***

The ETL script handled the dataset efficiently. For larger datasets, I'd consider batching inserts or further optimizing indexes.

- ***Scheduled Events:***

No noticeable slowdowns from scheduled events. I monitored the `Error_Log` table to confirm events executed as expected.

Common Errors and How I Fixed Them

Here are the most persistent issues I encountered, along with actual error messages and solutions:

1. Foreign Key Constraint Errors

Error Message:

ERROR 1217 (23000): Cannot delete or update a parent row: a foreign key constraint fails

Fix:

Added this to schema setup:

```
SET FOREIGN_KEY_CHECKS = 0;
```

```
-- Drop and create tables
```

```
SET FOREIGN_KEY_CHECKS = 1;
```

2. Trigger Already Exists / Trigger Syntax Errors

Error Messages:

Error Code: 1359. Trigger already exists

Error Code: 1064. You have an error in your SQL syntax

0 497 10:06:49 *INSERT INTO Content_Genre (content_id, genre_id) VALUES (2, 2)*

Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails

*(`multimediacontentdb`.`content_genre`, CONSTRAINT `content_genre_ibfk_1` FOREIGN KEY
(`content_id`) REFERENCES `content` (`content_id`)) 0.000 sec*

Fix:

Used:

DROP TRIGGER IF EXISTS trg_watchlist_limit;

before every trigger. Also checked for stray text or copy-paste issues.

3. Table Already Exists Warnings

Error Message:

1050 Table 'error_log' already exists

Fix:

*Ensured **DROP TABLE IF EXISTS** before each **CREATE TABLE** in the schema script.*

4. ETL Load Errors

Error Message:

(sqlalchemy.exc.ProgrammingError) (1146, "Table 'multimediacontentdb.country' doesn't exist")

Fix:

Made sure schema.sql was always run first. Cleaned up any leftover data before ETL.

5. Negative Transaction Amounts Not Being Logged

Issue: *The trigger wasn't firing.*

Fix:

forgotten to include the trigger. After ensuring it was dropped and recreated each run, it worked as expected.

6. Scheduled Events Not Firing

Fix:

Enabled the event scheduler with

SET GLOBAL event_scheduler = ON;

*Then tested logic manually and checked **Error_Log** for entries.*

#	Time	Action	Message	Duration / Fetch
28	09:06:30	CREATE PROCEDURE refresh_popular_content_rankings() BEGIN DECLARE EXIT HANDLER FOR SQLE...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL ser...	0.000 sec
29	09:07:39	DROP PROCEDURE IF EXISTS log_etl_metic	0 row(s) affected	0.016 sec
30	09:07:39	CREATE PROCEDURE log_etl_metic(IN job_name VARCHAR(255), IN start_time DATETIME, IN end...	0 row(s) affected	0.000 sec
31	09:07:39	- Contains all procedures for MultimediaContentDB - Auxiliary Table for Payment Errors CREATE TABLE IF NO...	0 row(s) affected, 1 warning(s): 1050 Table 'payment_errors' already exists	0.000 sec
32	09:07:39	DROP PROCEDURE IF EXISTS generate_monthly_user_activity_report	0 row(s) affected	0.000 sec
33	09:07:39	CREATE PROCEDURE generate_monthly_user_activity_report(jud INT) BEGIN SELECT u.user_id, u.name, ...	0 row(s) affected	0.016 sec
34	09:07:39	- 2. Procedure: Process Batch Content Updates (by criteria) DROP PROCEDURE IF EXISTS update_content_...	0 row(s) affected	0.000 sec
35	09:07:39	CREATE PROCEDURE update_content_availability_by_criteria(min_release_year INT, min_views INT) BEGIN ...	0 row(s) affected	0.000 sec
36	09:07:39	- 3. Procedure: Handle Failed Payments DROP PROCEDURE IF EXISTS handle_failed_payment	0 row(s) affected	0.000 sec
37	09:07:39	CREATE PROCEDURE handle_failed_payment(jud INT, pmid INT, emmsg VARCHAR(255)) BEGIN DECLAR...	0 row(s) affected	0.000 sec
38	09:07:39	- 4. Procedure: Refresh Popular Content Rankings (top 10 per genre) CREATE TABLE IF NOT EXISTS Popular...	0 row(s) affected, 1 warning(s): 1050 Table 'popular_content' already exists	0.000 sec
39	09:07:39	DROP PROCEDURE IF EXISTS refresh_popular_content_rankings	0 row(s) affected, 1 warning(s): 1305 PROCEDURE multimediacontentdb.refresh_popular_content_rankings doe...	0.000 sec
40	09:07:39	CREATE PROCEDURE refresh_popular_content_rankings() BEGIN DECLARE EXIT HANDLER FOR SQLE...	0 row(s) affected	0.000 sec
41	09:07:39	- 5. Procedure: Generate Content Usage Report DROP PROCEDURE IF EXISTS generate_content_report	0 row(s) affected	0.000 sec
42	09:07:39	CREATE PROCEDURE generate_content_report() BEGIN SELECT c.title, COUNT(w.history_id) AS views ...	0 row(s) affected	0.000 sec
43	09:07:39	CREATE PROCEDURE handle_failed_payment(jud INT) BEGIN UPDATE User_Subscription SET end_da...	Error Code: 1304. PROCEDURE handle_failed_payment already exists	0.000 sec

#	Time	Action	Message	Duration / Fetch
35	09:07:39	CREATE PROCEDURE update_content_availability_by_criteria(min_release_year INT, min_views INT) BEGIN ...	0 row(s) affected	0.000 sec
36	09:07:39	- 3. Procedure: Handle Failed Payments DROP PROCEDURE IF EXISTS handle_failed_payment	0 row(s) affected	0.000 sec
37	09:07:39	CREATE PROCEDURE handle_failed_payment(lid INT, pmid INT, errmsg VARCHAR(255)) BEGIN DECLARE ...	0 row(s) affected	0.000 sec
38	09:07:39	- 4. Procedure: Refresh Popular Content Rankings (top 10 per genre) CREATE TABLE IF NOT EXISTS Popular...	0 row(s) affected, 1 warning(s): 1050 Table 'popular_content' already exists	0.000 sec
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42	09:07:39	CREATE PROCEDURE generate_content_report() BEGIN SELECT c.title, COUNT(w.history_id) AS views ...	0 row(s) affected	0.000 sec
43	09:07:39	CREATE PROCEDURE handle_failed_payment(lid INT) BEGIN UPDATE User_Subscription SET end_da...	Error Code: 1304. PROCEDURE handle_failed_payment already exists	0.000 sec
44	09:08:54	DROP PROCEDURE IF EXISTS log_etl_metric	0 row(s) affected	0.000 sec
45	09:08:54	CREATE PROCEDURE log_etl_metric(IN job_name VARCHAR(255), IN start_time DATETIME, IN end...	0 row(s) affected	0.000 sec
46	09:08:54	- Contains all procedures for MultimediaContentDB - Auxiliary Table for Payment Errors CREATE TABLE IF NO...	0 row(s) affected, 1 warning(s): 1050 Table 'payment_errors' already exists	0.016 sec
47	09:08:54	DROP PROCEDURE IF EXISTS generate_monthly_user_activity_report	0 row(s) affected	0.000 sec
48	09:08:54	CREATE PROCEDURE generate_monthly_user_activity_report(lid INT) BEGIN SELECT u.user_id, u.name, ...	0 row(s) affected	0.000 sec
49	09:08:54	- 2. Procedure: Process Batch Content Updates (by criteria) DROP PROCEDURE IF EXISTS update_content_...	0 row(s) affected	0.000 sec
50	09:08:54	CREATE PROCEDURE update_content_availability_by_criteria(min_release_year INT, min_views INT) BEGIN ...	0 row(s) affected	0.000 sec
51	09:08:54	- 3. Procedure: Handle Failed Payments DROP PROCEDURE IF EXISTS handle_failed_payment	0 row(s) affected	0.000 sec
52	09:08:54	CREATE PROCEDURE handle_failed_payment(lid INT, pmid INT, errmsg VARCHAR(255)) BEGIN DECLAR...	0 row(s) affected	0.016 sec
53	09:08:54	- 4. Procedure: Refresh Popular Content Rankings (top 10 per genre) CREATE TABLE IF NOT EXISTS Popular...	0 row(s) affected, 1 warning(s): 1050 Table 'popular_content' already exists	0.000 sec
54	09:08:54	DROP PROCEDURE IF EXISTS refresh_popular_content_rankings	0 row(s) affected	0.000 sec
55	09:08:54	CREATE PROCEDURE refresh_popular_content_rankings() BEGIN DECLARE EXIT HANDLER FOR SQLE...	0 row(s) affected	0.000 sec
56	09:08:54	- 5. Procedure: Generate Content Usage Report DROP PROCEDURE IF EXISTS generate_content_report	0 row(s) affected	0.000 sec
57	09:08:54	CREATE PROCEDURE generate_content_report() BEGIN SELECT c.title, COUNT(w.history_id) AS views ...	0 row(s) affected	0.000 sec
58	09:08:54	- 6. Procedure: Handle Failed Payment DROP PROCEDURE IF EXISTS handle_failed_payment	0 row(s) affected	0.015 sec
59	09:08:54	CREATE PROCEDURE handle_failed_payment(lid INT) BEGIN UPDATE User_Subscription SET end_da...	0 row(s) affected	0.000 sec

```

8 );
9 SHOW CREATE PROCEDURE generate_monthly_user_activity_report;
10 -- 1. Procedure: Generate Monthly User Activity Report
11 DROP PROCEDURE IF EXISTS generate_monthly_user_activity_report;
12 CREATE PROCEDURE generate_monthly_user_activity_report(uid INT)
13 BEGIN
14     SELECT u.user_id, u.name,
15            COUNT(DISTINCT w.content_id) AS content_watched,
16            AVG(r.score) AS avg_rating,
17            SUM(TIMESTAMPDIFF(HOUR, w.watch_date, w.watch_date)) AS hours_spent
18     FROM User u
19     WHERE w.watch_date >= DATE SUB(NOW

```

Save Run

Procedure	sql_mode
1 generate_monthly_user_activity_report	IGNORE_SPACE,ONLY_FULL_GROUP_BY,STRICT_TRANS_TABLES,NO_ZERO_IN_DATE,M

SQL File 6* schema Procedures business_logic Functions Tests Events Triggers SQLAdditions: Jump to

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
215	09:31:31	CREATE TABLE Content_Director (content_id INT, director_id INT, PRIMARY KEY (content_id, director_id))	0 row(s) affected	0.015 sec
216	09:31:31	DROP TABLE IF EXISTS Content_Actor	0 row(s) affected	0.016 sec
217	09:31:31	CREATE TABLE Content_Actor (content_id INT, actor_id INT, PRIMARY KEY (content_id, actor_id))	0 row(s) affected	0.016 sec
218	09:31:31	DROP TABLE IF EXISTS Content_Genre	0 row(s) affected	0.015 sec
219	09:31:31	CREATE TABLE Content_Genre (content_id INT, genre_id INT, PRIMARY KEY (content_id, genre_id))	0 row(s) affected	0.016 sec
220	09:31:31	DROP TABLE IF EXISTS Error_Log	0 row(s) affected	0.000 sec
221	09:31:31	DROP TABLE IF EXISTS Content_Country	0 row(s) affected, 1 warning(s): 1051 Unknown table 'multimediacontentdb.content_country'	0.000 sec
222	09:31:31	CREATE TABLE Content_Country (content_id INT, country_id INT, PRIMARY KEY (content_id, country_id))	0 row(s) affected	0.016 sec
223	09:31:31	DROP TABLE IF EXISTS Error_Log	0 row(s) affected, 1 warning(s): 1051 Unknown table 'multimediacontentdb.error_log'	0.000 sec
224	09:31:31	DROP TABLE IF EXISTS Content_Format_Map	0 row(s) affected, 1 warning(s): 1051 Unknown table 'multimediacontentdb.content_format_map'	0.000 sec
225	09:31:31	CREATE TABLE Content_Format_Map (content_id INT, format_id INT, PRIMARY KEY (content_id, format_id))	0 row(s) affected	0.031 sec
226	09:31:31	SET FOREIGN_KEY_CHECKS = 1	0 row(s) affected	0.000 sec
227	09:31:31	DROP TABLE IF EXISTS Playlist_Content	0 row(s) affected	0.000 sec
228	09:31:31	CREATE TABLE Playlist_Content (playlist_id INT, content_id INT, PRIMARY KEY (playlist_id, content_id))	0 row(s) affected	0.016 sec
229	09:31:31	DROP TABLE IF EXISTS Content_Tag	0 row(s) affected	0.016 sec
230	09:31:31	CREATE TABLE Content_Tag (content_id INT, tag_id INT, PRIMARY KEY (content_id, tag_id))	0 row(s) affected	0.015 sec
231	09:31:31	DROP TABLE IF EXISTS Content_Accessibility_Map	0 row(s) affected	0.016 sec
232	09:31:31	CREATE TABLE Content_Accessibility_Map (content_id INT, accessibility_id INT, PRIMARY KEY (content_id, accessibility_id))	0 row(s) affected	0.015 sec

Line	Text	Errors	Warnings	Time
277	09:36:16 CREATE TRIGGER trg_watchlist_errors AFTER INSERT ON Watchlist FOR EACH ROW BEGIN ...	0 row(s) affected	0 warnings	0.000 sec
278	09:36:16 CREATE TRIGGER trg_archive_content_on_low_rating AFTER INSERT ON Review FOR EACH ROW BEGIN ...	Error Code: 1359. Trigger already exists		0.000 sec
279	09:36:17 CREATE TABLE IF NOT EXISTS Director_Assignment_Errors (error_id INT PRIMARY KEY AUTO_INCREMENT, ...)	0 row(s) affected, 1 warning(s): 1050 Table 'director_assignment_errors' already exists		0.000 sec
280	09:36:17 CREATE TABLE IF NOT EXISTS Error_Log (error_id INT PRIMARY KEY AUTO_INCREMENT, ...)	0 row(s) affected, 1 warning(s): 1050 Table 'error_log' already exists		0.015 sec
281	09:36:17 DROP TRIGGER IF EXISTS trg_watchlist_limit	0 row(s) affected		0.000 sec
282	09:36:17 CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN ...	0 row(s) affected		0.000 sec
283	09:36:17 CREATE TRIGGER trg_archive_content_on_low_rating AFTER INSERT ON Review FOR EACH ROW BEGIN ...	Error Code: 1359. Trigger already exists		0.000 sec
284	09:37:50 CREATE TABLE IF NOT EXISTS Error_Log (log_id INT AUTO_INCREMENT PRIMARY KEY, ...)	0 row(s) affected, 1 warning(s): 1050 Table 'error_log' already exists		0.000 sec
285	09:37:50 CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '...' at line 1		0.000 sec
286	09:37:51 CREATE TABLE IF NOT EXISTS Error_Log (log_id INT AUTO_INCREMENT PRIMARY KEY, ...)	0 row(s) affected, 1 warning(s): 1050 Table 'error_log' already exists		0.000 sec
287	09:37:51 CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '...' at line 1		0.000 sec
288	09:39:00 CREATE TABLE IF NOT EXISTS Error_Log (log_id INT AUTO_INCREMENT PRIMARY KEY, ...)	0 row(s) affected, 1 warning(s): 1050 Table 'error_log' already exists		0.000 sec
289	09:39:00 CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '...' at line 1		0.000 sec
290	09:39:01 CREATE TABLE IF NOT EXISTS Error_Log (log_id INT AUTO_INCREMENT PRIMARY KEY, ...)	0 row(s) affected, 1 warning(s): 1050 Table 'error_log' already exists		0.000 sec
291	09:39:01 CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '...' at line 1		0.000 sec
292	09:39:02 CREATE TABLE IF NOT EXISTS Error_Log (log_id INT AUTO_INCREMENT PRIMARY KEY, ...)	0 row(s) affected, 1 warning(s): 1050 Table 'error_log' already exists		0.000 sec
293	09:39:02 CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '...' at line 1		0.000 sec

Filter objects

multimediacontentdb

- Tables
 - actor
 - content
 - content_access_map
 - content_accessibility
 - content_accessibility_map
 - content_actor
 - content_availability
 - content_director
 - content_genre
 - content_release
 - content_tag
 - Columns
 - Indexes
 - Foreign Keys
 - Triggers
 - content_watchhistory
 - country
 - director
 - genre
 - Columns
 - genre_id
 - name
 - Indexes

Administration Schemas

Information

```
Administrator: Windows Powe x + v  
File C:\Users\casani\AppData\Local\Programs\Python\Python121\Lib\site-packages\pygame\connection.py, line 68, in query  
self._affected_rows = self._read_query_result(pcursor.fetchall())  
File C:\Users\casani\AppData\Local\Programs\Python\Python121\Lib\site-packages\pygame\connection.py, line 201, in _read_query_result  
return result  
  
File C:\Users\casani\AppData\Local\Programs\Python\Python121\Lib\site-packages\pygame\connection.py, line 197, in read  
first_packet = self.connection_read_packet()  
File C:\Users\casani\AppData\Local\Programs\Python\Python121\Lib\site-packages\pygame\connection.py, line 179, in read_packet  
packet = time_for_error() *  
File C:\Users\casani\AppData\Local\Programs\Python\Python121\Lib\site-packages\pygame\gameover.py, line 217, in raise_for_error  
msg_data.read_exception(self.data)  
File C:\Users\casani\AppData\Local\Programs\Python\Python121\Lib\site-packages\pygame\error.py, line 109, in raise_pyexception  
raise errorclass(msg) from None  
[Errno 104] Connection reset by peer ([closed; see deprecated]) (low, "call '_polling_socket' without setting .country' doesn't exist")  
[Errno 104] Connection reset by peer ([closed; see deprecated]) (low, "call '_polling_socket' without setting .country' doesn't exist")  
Traceback (most recent call last):  
  File "C:/Users/casani/AppData/Local/Programs/Python/P...-group-project-q2d-fieradata/project/scripts/pym ot_load_data.py"  
    ...
```

```
[parameters: {'cid': 1, 'ccid': 37}]
(Backspace on this error at: https://sqlalche.me/e/28/f986)
PS C:\Users\nason\CascadeProjects\csc675-775-group-project-sp25-Pierrikata\Project\Scripts> .C
PS C:\Users\nason\CascadeProjects\csc675-775-group-project-sp25-Pierrikata\Project\Scripts> python etl_load_data.py
ETL complete!
PS C:\Users\nason\CascadeProjects\csc675-775-group-project-sp25-Pierrikata\Project\Scripts> |
```

327	09:55:05	CREATE TRIGGER trg_archive_content_on_low_rating AFTER INSERT ON Review FOR EACH RO...	Error Code: 1359. Trigger already exists	0.000 sec
369	09:56:59	CREATE TRIGGER trg_archive_content_on_low_rating AFTER INSERT ON Review FOR EACH RO...	Error Code: 1359. Trigger already exists	0.000 sec
370	09:57:00	CREATE TABLE IF NOT EXISTS Director_Assignment_Errors (error_id INT PRIMARY KEY AUTO...	0 row(s) affected, 1 warning(s): 1050 Table 'director_assignment_errors' already exists	0.000 sec
371	09:57:00	DROP TABLE IF EXISTS Error_Log	0 row(s) affected	0.000 sec
372	09:57:00	CREATE TABLE Error_Log (log_id INT AUTO_INCREMENT PRIMARY KEY, error_message T...	0 row(s) affected	0.015 sec
373	09:57:00	DROP TRIGGER IF EXISTS trg_watchlist_limit	0 row(s) affected	0.000 sec
374	09:57:00	CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN ...	0 row(s) affected	0.000 sec
375	09:57:00	CREATE TRIGGER trg_archive_content_on_low_rating AFTER INSERT ON Review FOR EACH RO...	Error Code: 1359. Trigger already exists	0.000 sec
376	09:57:57	CREATE TABLE IF NOT EXISTS Director_Assignment_Errors (error_id INT PRIMARY KEY AUTO...	0 row(s) affected, 1 warning(s): 1050 Table 'director_assignment_errors' already exists	0.000 sec
377	09:57:57	DROP TABLE IF EXISTS Error_Log	0 row(s) affected	0.016 sec
378	09:57:57	CREATE TABLE Error_Log (log_id INT AUTO_INCREMENT PRIMARY KEY, error_message T...	0 row(s) affected	0.016 sec
379	09:57:57	DROP TRIGGER IF EXISTS trg_watchlist_limit	0 row(s) affected	0.000 sec
380	09:57:57	DROP TRIGGER IF EXISTS trg_unique_director	0 row(s) affected, 1 warning(s): 1360 Trigger does not exist	0.000 sec
381	09:57:57	DROP TRIGGER IF EXISTS trg_log_transaction_error	0 row(s) affected, 1 warning(s): 1360 Trigger does not exist	0.000 sec
382	09:57:57	DROP TRIGGER IF EXISTS trg_archive_content_on_low_rating	0 row(s) affected	0.000 sec
383	09:57:57	CREATE TRIGGER trg_watchlist_limit BEFORE INSERT ON Watchlist FOR EACH ROW BEGIN ...	0 row(s) affected	0.016 sec
384	09:57:57	CREATE TRIGGER trg_archive_content_on_low_rating AFTER INSERT ON Review FOR EACH RO...	0 row(s) affected	0.000 sec

MySQL Workbench

local instance x

File Edit View Query Database Server Tools Scripting Help

Navigator

Filter objects

SCHEMAS

- name
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- payment_method
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- playlist_content
- popular_content
- Columns
 - genre_id
 - content_id
 - view_count
 - rank
- Indexes
- Foreign Keys
- Triggers
- rating
- review
- subscription_plan
- tag
- transaction
- user
- user_subscription
- watchlist

Administration Schemas

Information

Table: popular_content

Columns:

- genre_id int PK
- content_id int
- view_count int
- rank int PK

SQL File 6" schema Procedures business_logic Functions Tests Events Triggers example_inserts

```
1
2 INSERT IGNORE INTO User (name, email) VALUES ('alice smith@example.com')
3 -- Ensure user_id 1 exists for the next insert
4 INSERT IGNORE INTO User (user_id, name, email) VALUES (1, 'alice smith@example.com', 'alice.smith@example.com')
5 INSERT IGNORE INTO User (name, email) VALUES ('bob smith@example.com')
6 INSERT IGNORE INTO User (name, email) VALUES ('charlie smith@example.com')
7
8 INSERT IGNORE INTO Actor (actor_id, name, email) VALUES (1, 'alice smith@example.com', 'alice.smith@example.com')
```

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Output

#	Time	Action	Message	Duration / Fetch
707	10:08:52	INSERT IGNORE INTO Content_Director (content_id, director_id) VALUES (1, 3)	0 row(s) affected, 1 warning(s): 1452 Cannot add or update a child row: a foreign key constraint fails (...)	0.000 sec
708	10:08:52	INSERT IGNORE INTO Content_Actor (content_id, actor_id) VALUES (1, 2)	0 row(s) affected, 1 warning(s): 1452 Cannot add or update a child row: a foreign key constraint fails (...)	0.000 sec
709	10:08:52	INSERT IGNORE INTO Content_Country (content_id, country_id) VALUES (1, 1)	0 row(s) affected, 1 warning(s): 1452 Cannot add or update a child row: a foreign key constraint fails (...)	0.016 sec
710	10:08:52	INSERT IGNORE INTO Content_Country (content_id, country_id) VALUES (2, 2)	0 row(s) affected, 1 warning(s): 1452 Cannot add or update a child row: a foreign key constraint fails (...)	0.000 sec
711	10:08:52	INSERT IGNORE INTO Playlist (user_id, name) VALUES (1, 'Alice Playlist')	1 row(s) affected	0.000 sec
712	10:08:52	INSERT IGNORE INTO Playlist_Content (playlist_id, content_id) VALUES (1, 1)	0 row(s) affected, 1 warning(s): 1062 Duplicate entry '1-1' for key 'playlist_content PRIMARY'	0.000 sec
713	10:08:52	INSERT IGNORE INTO Playlist_Content (playlist_id, content_id) VALUES (1, 2)	0 row(s) affected, 1 warning(s): 1062 Duplicate entry '1-2' for key 'playlist_content PRIMARY'	0.000 sec
714	10:08:52	INSERT IGNORE INTO Watchlist (user_id, content_id) VALUES (1, 2)	1 row(s) affected	0.000 sec
715	10:08:52	INSERT IGNORE INTO Content_WatchHistory (user_id, content_id, watch_date) VALUES (1, 1, '202...	1 row(s) affected	0.000 sec
716	10:08:52	INSERT IGNORE INTO Review (user_id, content_id, review_text, review_date) VALUES (1, 1, 'Solid ...	1 row(s) affected	0.000 sec
717	10:08:52	INSERT IGNORE INTO Review (user_id, content_id, review_text, review_date) VALUES (2, 2, 'Not b...	0 row(s) affected, 1 warning(s): 1452 Cannot add or update a child row: a foreign key constraint fails (...)	0.000 sec
718	10:08:52	INSERT IGNORE INTO Subscription_Plan (name, price) VALUES ('Premium', 9.99)	1 row(s) affected	0.016 sec
719	10:08:52	INSERT IGNORE INTO User_Subscription (user_id, plan_id, start_date, end_date) VALUES (1, 1, '20...	1 row(s) affected	0.000 sec
720	10:08:52	INSERT IGNORE INTO Payment_Method (method) VALUES ('Credit Card')	1 row(s) affected	0.000 sec
721	10:08:52	INSERT IGNORE INTO Transaction (user_id, payment_method_id, amount, transaction_date) VALU...	1 row(s) affected	0.000 sec
722	10:08:52	INSERT IGNORE INTO User (name, email) VALUES ('Duplicate: 'alice.smith@example.com')	0 row(s) affected, 1 warning(s): 1062 Duplicate entry 'alice.smith@example.com' for key 'User email'	0.000 sec
723	10:08:52	INSERT IGNORE INTO Content_WatchHistory (user_id, content_id, watch_date) VALUES (999, 1, 2)	0 row(s) affected, 1 warning(s): 1452 Cannot add or update a child row: a foreign key constraint fails (...)	0.000 sec
724	10:08:52	INSERT IGNORE INTO Content_Genre (content_id, genre_id) VALUES (1, 999)	0 row(s) affected, 1 warning(s): 1452 Cannot add or update a child row: a foreign key constraint fails (...)	0.000 sec

Object Info Session

Result Grid	Filter Rows:	Export:	Wrap Cell Content:	Result Grid
COUNT(*)				
0				
Result 3 x				Read Only Co
Output				