Tagle, Marc Neil V.
M001

Semi-Finals Output Part 1: SQL – DDL and DML Tasks

Create and execute an SQL script that performs the following:

1. Create a new MySQL database.
2. Select the database for use.
3. Create **at least two tables** with appropriate fields, data types, and primary key.
4. Insert **a minimum of 10 records** into each table.
5. Update at least **one existing record** in a table.
6. Delete at least **one record** from a table.
7. Write **at least five SELECT statements** that retrieve specific records based on different criteria (e.g., filtering, ordering, etc.).

The SQL code serves as the **foundation of the Playlist Manager system**, providing a structured and relational database that supports core functionalities such as user authentication, playlist creation, song cataloging, and many-to-many relationships between playlists and songs. It ensures data integrity through foreign key constraints and supports efficient data retrieval and manipulation.

Core Features and Design:

User Management	Song Management	Playlist System	Many-to-Many Relationship (Playlist ↔ Songs)
• The Users table stores essential account information (ID, username, password, email). • Supports operations like registration, login, updates, and account deletion.	• The Songs table contains the library of all available songs, including their title, artist, and genre. • Enables adding, updating, and deleting songs.	• The Playlist_Details table records all playlists created by users. • Each playlist is linked to a specific user via a foreign key (user_id), with a timestamp to track creation.	• The Playlist_Songs junction table ensures playlists to contain multiple songs, and songs to belong to multiple playlists. • Enforced through foreign keys referencing both Playlist_Details and Songs.

Relational Design Summary:

- 1 User ⟶ Many Playlists
- 1 Playlist ⟶ Many Songs
- 1 Song ⟶ Can exist in Many Playlists
- Cascading deletes ensure deleted records are automatically removed (e.g., deleting a user removes their playlists).

CRUD Operations and Queries:

The SQL code includes examples of:

- Creating: Tables, users, songs, playlists, and playlist-song relationships.
- Reading: Fetching songs by genre, playlist by user, or filtering emails.
- Updating: Modifying user emails, song genres, and playlist names.
- Deleting; Removing users, songs, or specific playlist-song entries.

Highlights:

- Uses primary keys for unique identification and foreign keys for relational integrity.
- Implements ON CASCADE DELETE to simplify data cleanup.
- Provides sample data for immediate testing and interaction.
- Includes query examples that demonstrate how to extract meaningful information (e.g., all songs in a playlist, all playlist of a user).

OUTPUT SCREENSHOTS:

CREATING TABLES

USERS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	14:56:27	CREATE TABLE Users (id VARCHAR (50) PRIMARY KEY NOT NULL, name VARCHAR (50) NOT NULL, password VARC...	0 row(s) affected	0.031 sec

SONGS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	14:56:27	CREATE TABLE Users (id VARCHAR (50) PRIMARY KEY NOT NULL, name VARCHAR (50) NOT NULL, password VARC...	0 row(s) affected	0.031 sec
2	14:58:41	CREATE TABLE Songs (id VARCHAR (50) PRIMARY KEY NOT NULL, title VARCHAR (50) NOT NULL, artist VARCHAR (...	0 row(s) affected	0.031 sec

PLAYLISTS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	14:56:27	CREATE TABLE Users (id VARCHAR (50) PRIMARY KEY NOT NULL, name VARCHAR (50) NOT NULL, password VARC...	0 row(s) affected	0.031 sec
2	14:58:41	CREATE TABLE Songs (id VARCHAR (50) PRIMARY KEY NOT NULL, title VARCHAR (50) NOT NULL, artist VARCHAR (...	0 row(s) affected	0.031 sec
3	14:59:13	CREATE TABLE Playlist_Details (id VARCHAR (50) PRIMARY KEY NOT NULL, name VARCHAR (50) NOT NULL, user_id...	0 row(s) affected	0.032 sec

PLAYLIST-SONG RELATIONS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:00:24	CREATE TABLE Users (id VARCHAR (50) PRIMARY KEY NOT NULL, name VARCHAR (50) NOT NULL, password VARC...	0 row(s) affected	0.031 sec
2	15:00:27	CREATE TABLE Songs (id VARCHAR (50) PRIMARY KEY NOT NULL, title VARCHAR (50) NOT NULL, artist VARCHAR (...	0 row(s) affected	0.015 sec
3	15:00:38	CREATE TABLE Playlist_Details (id VARCHAR (50) PRIMARY KEY NOT NULL, name VARCHAR (50) NOT NULL, user_id...	0 row(s) affected	0.031 sec
4	15:00:49	CREATE TABLE Playlist_Songs (playlist_id VARCHAR (50) NOT NULL, song_id VARCHAR (50) NOT NULL, FOREIGN KE...	0 row(s) affected	0.016 sec

INSERTING

INSERTING USERS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:02:07	INSERT INTO Users (id, name, password, email) VALUES ('USR-0172', 'Neil', 'abcd1234', 'neil@gmail.com'), ('USR-0038', 'S...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec

INSERTING SONGS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:02:07	INSERT INTO Users (id, name, password, email) VALUES ('USR-0172', 'Neil', 'abcd1234', 'neil@gmail.com'), ('USR-0038', 'S...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec
2	15:02:32	INSERT INTO Songs (id, title, artist, genre) VALUES ('SNG-0147', 'Martyr Nyebera', 'Kamikazee', 'OPM Rock'), ('SNG-0059',...	16 row(s) affected Records: 16 Duplicates: 0 Warnings: 0	0.016 sec

INSERTING PLAYLISTS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:02:07	INSERT INTO Users (id, name, password, email) VALUES ('USR-0172', 'Neil', 'abcd1234', 'neil@gmail.com'), ('USR-0038', 'S...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec
2	15:02:32	INSERT INTO Songs (id, title, artist, genre) VALUES ('SNG-0147', 'Martyr Nyebera', 'Kamikazee', 'OPM Rock'), ('SNG-0059',...	16 row(s) affected Records: 16 Duplicates: 0 Warnings: 0	0.016 sec
3	15:02:48	INSERT INTO Playlist_Details (id, name, user_id) VALUES ('LST-0321', 'Chill Vibes', 'USR-0172'), ('LST-0057', 'Rock Anthe...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec

INSERTING PLAYLIST-SONG RELATIONS

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:02:07	INSERT INTO Users (id, name, password, email) VALUES ('USR-0172', 'Neil', 'abcd1234', 'neil@gmail.com'), ('USR-0038', 'S...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec
2	15:02:32	INSERT INTO Songs (id, title, artist, genre) VALUES ('SNG-0147', 'Martyr Nyebera', 'Kamikazee', 'OPM Rock'), ('SNG-0059',...	16 row(s) affected Records: 16 Duplicates: 0 Warnings: 0	0.016 sec
3	15:02:48	INSERT INTO Playlist_Details (id, name, user_id) VALUES ('LST-0321', 'Chill Vibes', 'USR-0172'), ('LST-0057', 'Rock Anthe...	10 row(s) affected Records: 10 Duplicates: 0 Warnings: 0	0.000 sec
4	15:03:06	INSERT INTO Playlist_Songs (playlist_id, song_id) VALUES ('LST-0057', 'SNG-0147'), ('LST-0057', 'SNG-0059'), ('LST-0189'...	12 row(s) affected Records: 12 Duplicates: 0 Warnings: 0	0.000 sec

UPDATING

UPDATE THE EMAIL OF A USER (NEIL)

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:05:00	UPDATE Users SET email = 'neil_updated@gmail.com' WHERE id = 'USR-0172'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec

UPDATE THE GENRE OF A SONG

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:05:00	UPDATE Users SET email = 'neil_updated@gmail.com' WHERE id = 'USR-0172'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec
2	15:05:20	UPDATE Songs SET genre = 'Indie Pop' WHERE id = 'SNG-0059'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec

UPDATE THE NAME OF A PLAYLIST

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:05:00	UPDATE Users SET email = 'neil_updated@gmail.com' WHERE id = 'USR-0172'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.015 sec
2	15:05:20	UPDATE Songs SET genre = 'Indie Pop' WHERE id = 'SNG-0059'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec
3	15:05:45	UPDATE Playlist_Details SET name = 'Chill Vibes Updated' WHERE id = 'LST-0321'	1 row(s) affected Rows matched: 1 Changed: 1 Warnings: 0	0.000 sec

DELETING

DELETE A USER (SAMSON)

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:08:00	DELETE FROM Users WHERE id = 'USR-0038'	1 row(s) affected	0.016 sec

DELETE A SONG (BABY BY JUSTIN BIEBER)

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:10:16	DELETE FROM Users WHERE id = 'USR-0038'	1 row(s) affected	0.000 sec
2	15:10:19	DELETE FROM Songs WHERE id = 'SNG-0004'	1 row(s) affected	0.000 sec

DELETE PLAYLIST (EMINEM VIBES)

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:10:16	DELETE FROM Users WHERE id = 'USR-0038'	1 row(s) affected	0.000 sec
2	15:10:19	DELETE FROM Songs WHERE id = 'SNG-0004'	1 row(s) affected	0.000 sec
3	15:10:37	DELETE FROM Playlist_Details WHERE id = 'LST-0315'	1 row(s) affected	0.000 sec

DELETE A SONG FROM A PLAYLIST (MIGRAINE FROM ROCK ANTHEMS)

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	15:10:16	DELETE FROM Users WHERE id = 'USR-0038'	1 row(s) affected	0.000 sec
2	15:10:19	DELETE FROM Songs WHERE id = 'SNG-0004'	1 row(s) affected	0.000 sec
3	15:10:37	DELETE FROM Playlist_Details WHERE id = 'LST-0315'	1 row(s) affected	0.000 sec
4	15:10:49	DELETE FROM Playlist_Songs WHERE playlist_id = 'LST-0057' AND song_id = 'SNG-0059'	0 row(s) affected	0.000 sec

SELECTING

GET ALL SONGS IN A SPECIFIC PLAYLIST (ROCK ANTHEMS)

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

title	artist	genre

Result Grid

GET ALL USERS WITH GMAIL ADDRESSES

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	name	password	email
USR-0084	Juan Dela Cruz	halimaw	jd.cruz@gmail.com
USR-0113	Faith	cool123	faith@gmail.com
USR-0146	Vincent	1234	vincent@gmail.com
USR-0172	Neil	abcd1234	neil_updated@gmail.com
USR-0195	Nathalie	abcd1234	nnjv@gmail.com
USR-0301	Kyla	potato	kyla@gmail.com
NULL	NULL	NULL	NULL

Result Grid
Form Editor

LIST ALL PLAYLISTS ORDERED BY NAME (ALPHABETICAL)

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	name	user_id
LST-0321	Chill Vibes Updated	USR-0172
LST-0090	Indie Discoveries	USR-0055
LST-0066	Love Songs	USR-0301
LST-0189	OPM Favorites	USR-0195
LST-0222	Primus Power	USR-0099
LST-0104	Sad Songs	USR-0084
LST-0136	Throwback Hits	USR-0146
LST-0273	Workout Jams	USR-0267
NULL	NULL	NULL

Result Grid
Form Editor
Field Types

FIND ALL POP SONGS

Result Grid | Filter Rows: | Edit: | Export/Import: | Wrap Cell Content:

id	title	artist
SNG-0111	Patutunguhan	Cup of Joe
SNG-0176	Tibok	Earl Agustin
NULL	NULL	NULL

Result Grid

FIND ALL PLAYLISTS OWNED BY A USER (NICO)

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

id	name
LST-0273	Workout Jams

Result Grid