

1. ALYSSA TOWNSEND

2. URL to STUDENT WEB SITE:

https://cis-linux2.temple.edu/tomcat10/fa24_3308_tuh25732/index.html

3. user_role TABLE DESIGN

The screenshot shows the MySQL Workbench interface for creating a new table named 'user_role'. The table is defined with the following columns:

Column	Datatype	PK	NN	UQ	B...	UN	ZF	AI	G	Default / Expression
user_role_id	INT(11)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
user_role_type	VARCHAR(10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
<click to edit>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A detailed view of the 'user_role_id' column is open, showing its properties:

- Column Name: user_role_id
- Datatype: INT(11)
- Charset/Collation: Default Charset
- Comments: (empty)
- Storage: VIRTUAL (radio button selected)
- Default: (empty)
- Primary Key: checked
- Not NULL: checked
- Unique: checked
- Binary: unchecked
- Unsigned: unchecked
- ZeroFill: unchecked

4. web_user TABLE DESIGN and FOREIGN KEY

The screenshot shows the MySQL Workbench interface for creating a new table named 'web_user'. The table is defined with the following columns:

Column	Datatype	PK	NN	UQ	B...	UN	ZF	AI	G	Default / Expression
web_user_id	INT(11)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>					
user_email	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>					
user_password	VARCHAR(45)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
user_image	VARCHAR(600)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
membership...	DECIMAL(8,2)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
birthday	DATE	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	NULL
user_role_id	INT(11)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<click to edit>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

A detailed view of the 'web_user_id' column is open, showing its properties:

- Column Name: web_user_id
- Datatype: INT(11)
- Charset/Collation: Default Charset
- Comments: (empty)
- Storage: (empty)
- Default: (empty)

Name	Schema	Table	Column	Referenced Sch...	Referenced Table	Referenced Colu...
song_tab_ibfk_1	fa24_3308_t...	song_tab	web_user_id	fa24_3308_t...	web_user	web_user_id
web_user_ibfk_1	fa24_3308_t...	web_user	user_role_id	fa24_3308_t...	user_role	user_role_id

5. “OTHER” TABLE DESIGN and FOREIGN KEY

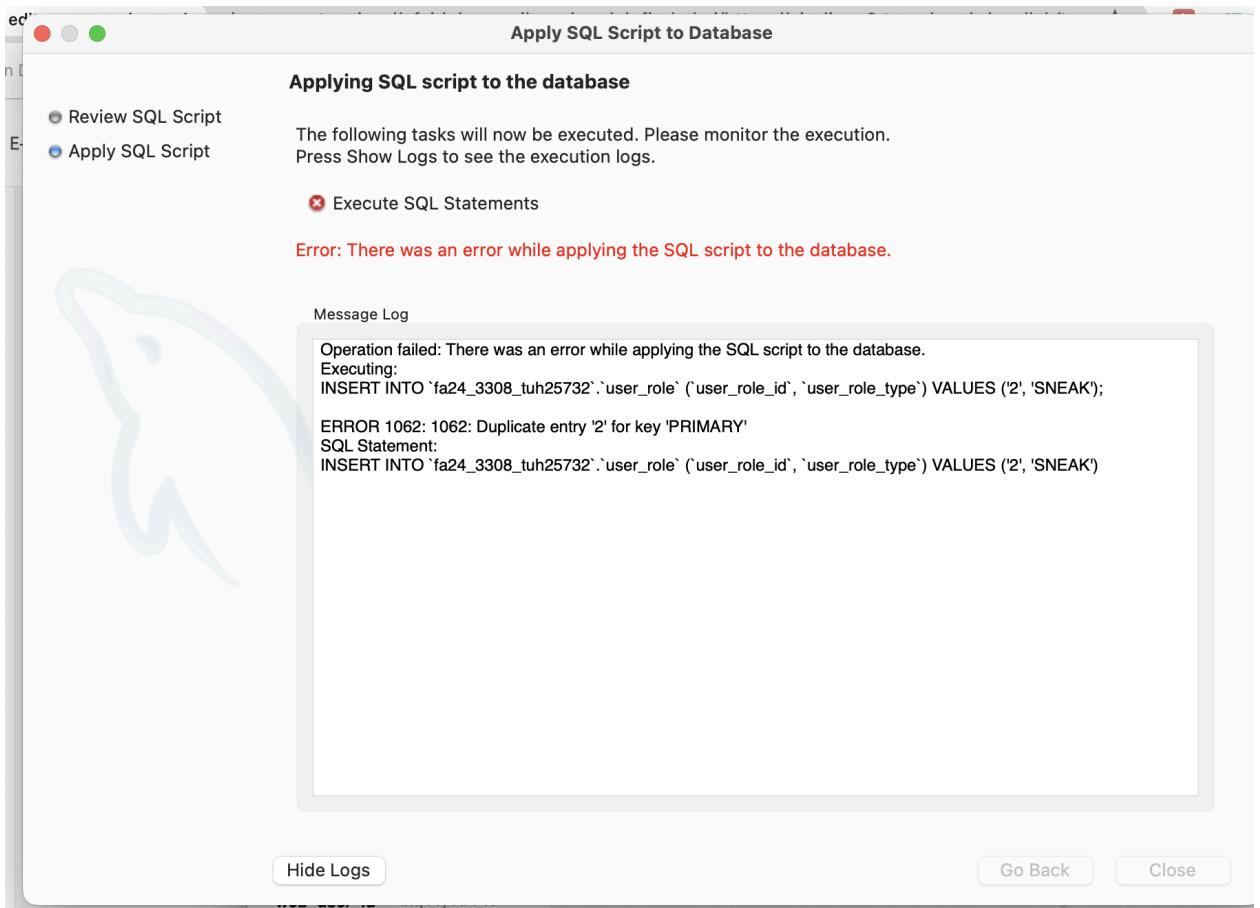
Table Structure:

Column	Datatype	PK	NN	UQ	B...	UN	ZF	AI	G	Default / Expression
song_tab_id	INT(11)	◆	✓	✓	□	□	□	□	✓	□
song_name	VARCHAR(200)	◆	□	✓	✓	□	□	□	□	□
cover_img	VARCHAR(600)	◆	□	✓	□	□	□	□	□	□
tab_pdf	VARCHAR(45)	◆	□	✓	✓	□	□	□	□	□
song_audio	VARCHAR(600)	◆	□	□	□	□	□	□	□	NULL
song_video	VARCHAR(600)	◆	□	□	□	□	□	□	□	NULL
song_length	DECIMAL(4,2)	◆	□	□	□	□	□	□	□	NULL
day_written	DATE	◆	□	□	□	□	□	□	□	NULL
genre_id	INT(1)	◆	□	✓	□	□	□	□	□	□
web_user_id	INT(11)	◆	□	✓	□	□	□	□	□	□
tab_notes	VARCHAR(200)	◆	□	□	□	□	□	□	□	NULL
<click to edit>		◆	□	□	□	□	□	□	□	□

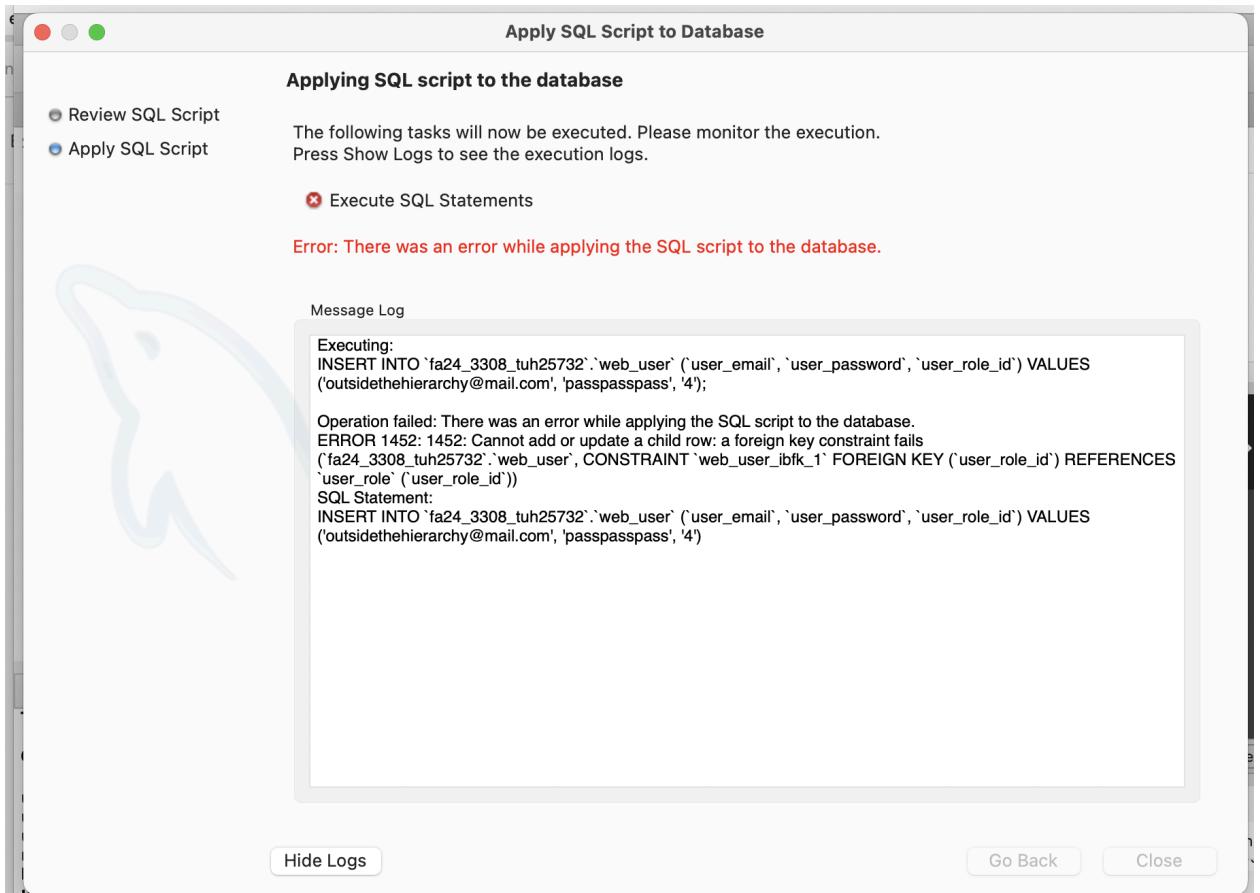
Info	Columns	Indexes	Triggers	Foreign keys	Partitions	Grants	DDL
Name	Schema	Table	Column	Referenced Sch...	Referenced Table	Referenced Colu...	
song_tab_ibfk_2	fa24_3308_t...	song_tab	genre_id	fa24_3308_t...	genre_list	genre_id	
<u>song_tab_ibfk_1</u>	fa24_3308_t...	song_tab	web_user_id	fa24_3308_t...	web_user	web_user_id	

6. DATA ENTRY ERRORS

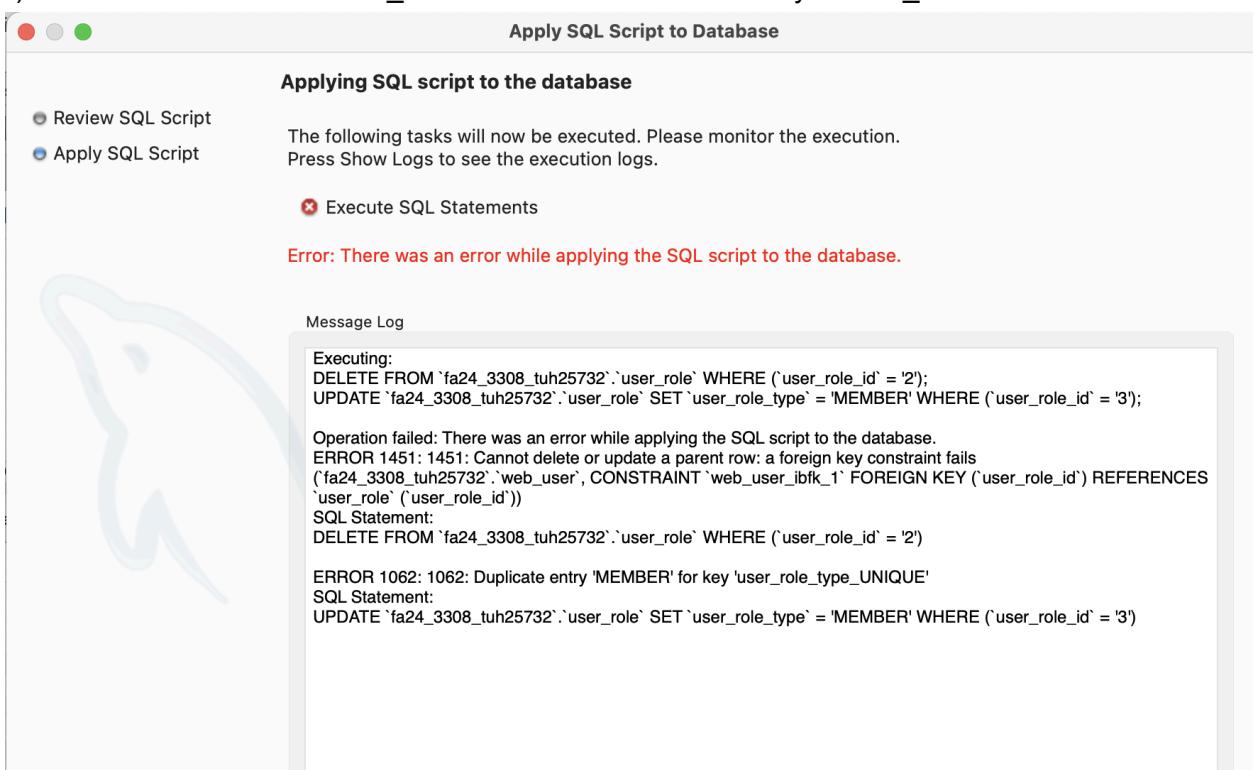
- a) Error: Duplicate user_role PK



b) Error: Invalid user_role FK in web_user record



c) Error: Cannot delete a user_role record that's referenced by a web_user record



d) Invalid web_user FK in “other” record

Error: There was an error while applying the SQL script to the database.

Message Log

```
Operation failed: There was an error while applying the SQL script to the database.
Executing:
INSERT INTO `fa24_3308_tuh25732`.`song_tab` (`song_name`, `tab_sheet_img`, `genre_id`, `web_user_id`) VALUES
('Lazy River Blues', 'lazy_river.jpg', '3', '26');

ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`fa24_3308_tuh25732`.`song_tab`, CONSTRAINT `song_tab_ibfk_1` FOREIGN KEY (`web_user_id`) REFERENCES
`web_user` (`web_user_id`))
SQL Statement:
INSERT INTO `fa24_3308_tuh25732`.`song_tab` (`song_name`, `tab_sheet_img`, `genre_id`, `web_user_id`) VALUES
('Lazy River Blues', 'lazy_river.jpg', '3', '26')
```

e) Error trying to delete a web_user record that’s referenced by an “other” record

Error: There was an error while applying the SQL script to the database.

Message Log

```
Executing:
DELETE FROM `fa24_3308_tuh25732`.`web_user` WHERE (`web_user_id` = '14');

Operation failed: There was an error while applying the SQL script to the database.
ERROR 1451: 1451: Cannot delete or update a parent row: a foreign key constraint fails
(`fa24_3308_tuh25732`.`song_tab`, CONSTRAINT `song_tab_ibfk_1` FOREIGN KEY (`web_user_id`) REFERENCES
`web_user` (`web_user_id`))
SQL Statement:
DELETE FROM `fa24_3308_tuh25732`.`web_user` WHERE (`web_user_id` = '14')
```

7. SELECT STATEMENTS

a) USER_ROLE: all rows, all columns, sorted by user_role_id.

The screenshot shows the MySQL Workbench interface with the following details:

- Schemas:** fa24_3308_tuh25732
- Tables:** genre_list, song_tab, user_role, web_user
- Query:** SELECT * FROM user_role ORDER BY user_role_id;
- Result Grid:**

user_role_id	user_role_ty...
1	ADMIN
2	MEMBER
3	VIEW
HULL	HULL
- Action Output:**

	Time	Action	Response	Duration / Fetch Time
1	11:07:15	SELECT * FROM web_user LIMIT 0, 1000	5 row(s) returned	0.0054 sec / 0.000001...
2	11:07:56	INSERT INTO `fa24_3308_tuh25732`.`web_user` ('web_user_id', '...')	1062: Duplicate entry '16' for key 'PRIMARY'	
3	11:11:47	SELECT * FROM user_role ORDER BY user_role_id LIMIT 0, 1000	3 row(s) returned	0.026 sec / 0.000008...

b) WEB_USER: all rows, all columns, sorted by web_user_id.

The screenshot shows the MySQL Workbench interface with the following details:

- Schemas:** The current schema is 'fa24_3308_tuh25732'.
- Tables:** The table 'web_user' is selected.
- Query Editor:** The query is 'SELECT * FROM web_user ORDER BY web_user_id;'. The results show 17 rows of data.
- Result Grid:** The data is presented in a grid with columns: web_user_id, user_email, user_password, user_image, membership_fee, birthday, and user_role_id.
- Action Output:** It shows the execution history of the query, including the time, action, response, and duration.

web_user_id	user_email	user_password	user_image	membership_fee	birthday	user_role_id
13	example@hotmail.com	password	totallyajgp.png	50.00	2001-08-14	1
14	user@gmail.com	passwass	itsaface.jpg	25.00	NULL	2
15	viewer@aol.com	pass	NULL	NULL	1965-11-11	3
16	anemail@email.com	123321	banjo.gif	999999.99	NULL	2
17	janepreriss@filth.spooky	evil_singing	gross_worm.jpg	NULL	NULL	3
NULL	NULL	NULL	NULL	NULL	NULL	NULL

c) WEB_USER JOINED WITH USER_ROLE: all rows, certain columns, sorted.

The screenshot shows the MySQL Workbench interface with the following details:

- Query Editor:** The query is 'SELECT user_role_type, user_email FROM web_user, user_role WHERE web_user.user_role_id = user_role.user_role_id ORDER BY user_role_type, user_email;'. The results show 5 rows of data.
- Result Grid:** The data is presented in a grid with columns: user_role_type and user_email.
- Action Output:** It shows the execution history of the query, including the time, action, response, and duration.

user_role_ty...	user_email
ADMIN	example@hotmail.com
MEMBER	anemail@email.com
MEMBER	user@gmail.com
VIEW	janepreriss@filth.spooky
VIEW	viewer@aol.com

d) "OTHER": all rows, all columns, sorted by the id of your "other" table.

```
1 •  SELECT * FROM song_tab ORDER BY song_tab_id;
```

Result Grid

song_tab_id	song_name	cover_img	tab_pdf	song_audio	song_video	song_length	day_written	genre_id	web_user_id	tab_notes	
17	Big Country	tab.jpg	tabs/big_country_sanders_ver.pdf	HULL	HULL	HULL	2	13	HULL		
18	Sally in the Garden	sally_tab.png	tabs/sally_in_the_garden.pdf	playing.mp4a	playing.mp4	3.44	2023-08-14	1	14	In Double C	
19	I'll Fly Away	fly.jpg	tabs/ill_fly_away.pdf	HULL	HULL	HULL	1	13	HULL		
20	Sugar Hill	sugar_hill.jpg	tabs/sugar_hill.pdf	playing_sugar_hill.mp4a	HULL	HULL	1	16	HULL		
21	Tamacun	tamacun.png	i_wish.pdf	HULL	HULL	HULL	4	14	Originally p		
22	Lost Gander	lost_gander_tab.png	tabs/lost_gander.pdf	tom_collins.mp4a	HULL	2.15	HULL	1	14	Two-finger	
23	Master of Puppets	puppet.jpg	dont_have_yet.pdf	HULL	hammer-ons.mp4	HULL	8	13	HULL	Challenge y	
24	Home Sweet Home	cover.jpeg	tabs/home_sweet_home.pdf	HULL	HULL	HULL	2021-12-24	6	16	HULL	
25	Star Wars	sw.png	tabs/star_wars.pdf	HULL	play.mp4	HULL	5	14	HULL	I think the c	
26	Arkansas Traveller	traveller.png	tabs/arkansas_traveller.pdf	HULL	HULL	HULL	9	13	HULL	This song is	
HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	HULL	

Action Output

Time	Action	Response	Duration / Fetch Time
25 13:53:28	SELECT * FROM song_tab ORDER BY song_tab_id LIMIT 0, 1000	10 row(s) returned	0.0074 sec / 0.00000...

e) "OTHER" JOINED WITH WEB_USER all rows, certain columns, sorted.

```
1 •  SELECT song_name, user_email
2   FROM song_tab, web_user
3  WHERE song_tab.web_user_id = web_user.web_user_id
4  ORDER BY user_email, song_name;
```

Result Grid

song_name	user_email
Home Sweet Home	anemail@email.com
Sugar Hill	anemail@email.com
Arkansas Traveller	example@hotmail.com
Big Country	example@hotmail.com
I'll Fly Away	example@hotmail.com
Master of Puppets	example@hotmail.com
Lost Gander	user@gmail.com
Sally in the Garden	user@gmail.com
Star Wars	user@gmail.com
Tamacun	user@gmail.com

Action Output

Time	Action	Response	Duration / Fetch Time
26 13:55:26	SELECT song_name, user_email FROM song_tab, web_user WHERE song_tab.web_user_id = w...	10 row(s) returned	0.0045 sec / 0.00000...

f) "OTHER" JOINED WITH WEB_USER some rows, certain columns, sorted.

The screenshot shows the MySQL Workbench interface. The query editor at the top contains the following SQL code:

```
1 •  SELECT song_name, user_email
2   FROM song_tab, web_user
3 WHERE song_tab.web_user_id = web_user.web_user_id
4     AND song_tab.web_user_id = 14
5 ORDER BY user_email, song_name;
```

The result grid below displays the following data:

song_name	user_email
Lost Gander	user@gmail.com
Sally in the Garden	user@gmail.com
Star Wars	user@gmail.com
Tamacun	user@gmail.com

At the bottom, the action output shows the query was executed successfully:

Action	Time	Response	Duration / Fetch
SELECT song_name, user_email FROM song_tab, web_user WHERE song_tab.web_user_id = w...	27 13:56:37	4 row(s) returned	0.0052 sec / 0.00