

1. STUDENT NAME: Steve Tolvaj

2. URL to STUDENT WEB SITE: http://cis-linux2.temple.edu:8080/FA22_3308_tuo21314/index.html

3. user_role TABLE DESIGN:

Query 1 user_role - Table x

Table Name: user_role Schema: FA22_3308_tuo21314

Charset/Collation: latin1 latin1_bin Engine: InnoDB

Comments:

Column Name	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"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
user_role_type	VARCHAR(10)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

4. web_user TABLE DESIGN and FOREIGN KEY:

Query 1 user_role - Table web_user - Table x

Table Name: web_user Schema: FA22_3308_tuo21314

Charset/Collation: Default Charse Default Collatio Engine: InnoDB

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
web_user_id	INT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
user_email	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
user_password	VARCHAR(45)	<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"/>	
image	VARCHAR(500)	<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_fee	DECIMAL(10,2)	<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"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

user_role - Table user_role web_user - Table x

Table Name: web_user Schema: FA22_3308_tuo21314

Charset/Collation: latin1 latin1_bin Engine: InnoDB

Comments:

Foreign Key Name	Referenced Table	Column	Referenced Column	Foreign Key Options
web_user_ibfk_1	FA22_3308_tuo21314.user_role			On Update: On Delete: <input type="checkbox"/> Skip in SQL generation

5. "OTHER" TABLE DESIGN and FOREIGN KEY : Used for web users logging what plants they have identified.

plants - Table

Table Name:
Schema: **FA22_3308_tuo21314**

Charset/Collation:
Engine:

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expressio
plant_id	INT(11)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
plant_name	VARCHAR(45)	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
plant_image	VARCHAR(500)	<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
plant_latitude	DECIMAL(10,8)	<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
plant_longitude	DECIMAL(11,8)	<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
plant_description	VARCHAR(2000)	<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
plant_region	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
plant_season	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
web_user_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"/>	

Query 1 plants plants user_role web_user plants - Table

Table Name:
Schema: **FA22_3308_tuo21314**

Charset/Collation:
Engine:

Comments:

Foreign Key Name	Referenced Table	Column	Ref	Foreign Key Options
plants_ibfk_1	'FA22_3308_tuo21314'. 'web_user'			On Update: <input type="text" value=""/> On Delete: <input type="text" value=""/> <input type="checkbox"/> Skip in SQL generation

6. DATA ENTRY ERRORS a) Error: Duplicate user_role PK:

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 `FA22_3308_tuo21314`.`user_role` (`user_role_id`, `user_role_type`) VALUES ('2', 'Admin');

ERROR 1062: 1062: Duplicate entry '2' for key 'PRIMARY'
SQL Statement:
INSERT INTO `FA22_3308_tuo21314`.`user_role` (`user_role_id`, `user_role_type`) VALUES ('2', 'Admin')

```

b) Error: Invalid user_role FK in web_user 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 `FA22_3308_tuo21314`.`web_user` (`user_email`, `user_password`, `image`,
`membership_fee`, `birthday`, `user_role_id`) VALUES ('jill@gmail.com', 'root1',
'https://picsum.photos/200/300', '5.55', '1989-11-11', '5');

ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`FA22_3308_tuo21314`.`web_user`, CONSTRAINT `web_user_ibfk_1` FOREIGN KEY (`user_role_id`)
REFERENCES `user_role` (`user_role_id`))
SQL Statement:
INSERT INTO `FA22_3308_tuo21314`.`web_user` (`user_email`, `user_password`, `image`,
`membership_fee`, `birthday`, `user_role_id`) VALUES ('jill@gmail.com', 'root1',
'https://picsum.photos/200/300', '5.55', '1989-11-11', '5')
```

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

web_user

user_role

Limit to 1000 rows

1 • delete FROM FA22_3308_tuo21314.user_role where user_role_id = 0;

SQLAdditions

Context Help Snippets

Output


Action Output

#	Time	Action	Message	Duration / Fetch
1	17:49:42	SELECT * FROM FA22_3308_tuo21314.web_user order by web_user_id LIMIT 0, 1000	5 row(s) returned	0.015 sec / 0.000 sec
2	17:49:45	delete FROM FA22_3308_tuo21314.user_role where user_role_id = 0	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails ('FA22_3308_tuo21314'.web_user, CONSTRAINT `web_user_ibfk_1` FOREIGN KEY (user_role_id) REFERENCES user_role` (u...	0.016 sec

d) Invalid web_user FK in "other" record

Applying SQL script to the database

The following tasks will now be executed. Please monitor the execution.
Press Show Logs to see the execution logs.

 Execute SQL Statements

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 `FA22_3308_tuo21314`.`plants` (`plant_name`, `web_user_id`) VALUES ('Invalid', '10');

ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`FA22_3308_tuo21314`.`plants`, CONSTRAINT `plants_ibfk_1` FOREIGN KEY (`web_user_id`)
REFERENCES `web_user` (`web_user_id`))
SQL Statement:
INSERT INTO `FA22_3308_tuo21314`.`plants` (`plant_name`, `web_user_id`) VALUES ('Invalid', '10')
```

e) Error trying to delete a web_user record that's referenced by an "other" record

The screenshot shows a database management tool interface. The top toolbar includes icons for file operations, search, and execution. The main query editor contains the following SQL statement:

```
1 delete from web_user where web_user_id = 5;
```

The 'Output' pane at the bottom displays an 'Action Output' table with the following data:

#	Time	Action	Message	Duration / Fetch
1	13:36:01	delete from web_user where web_user_id ...	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails ('FA22_3308_tuo21314';plants', CONSTRAINT 'plants_ibfk_1' FOREIGN KEY ('web_user_id') REFERENCES 'web_user' ('web_user_id'))	0.016 sec

7. SELECT STATEMENTS

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

The screenshot shows a database management tool interface. The top toolbar includes icons for file operations, search, and execution. The main query editor contains the following SQL statement:

```
1 • SELECT * FROM FA22_3308_tuo21314.user_role ORDER BY user_role_id;
```

The 'Result Grid' pane displays the following data:

user_role_id	user_role_type
0	Admin
1	Member
2	View
NULL	NULL

The 'Output' pane at the bottom displays an 'Action Output' table with the following data:

#	Time	Action	Message	Duration / Fetch
1	13:37:58	SELECT * FROM FA22_3308_tuo21314.user_role ORDER BY user_role_id LIMIT 0, 1000	3 row(s) returned	0.016 sec / 0.000 sec

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

The screenshot shows a database management tool interface. The top toolbar includes icons for file operations, search, and execution. The main query editor contains the following SQL statement:

```
1 • SELECT * FROM FA22_3308_tuo21314.web_user;
```

The 'Result Grid' pane displays the following data:

web_user_id	user_email	user_password	image	membership_fee	birthday	user_role_id
1	steve123j@gmail.com	pass	https://images.unsplash.com/photo-148004496...	10.00	1990-01-26	0
2	dirtbike@gmail.com	root	https://images.unsplash.com/photo-159160897...	15.00	1966-03-23	1
3	steve@temple.edu	test	https://images.unsplash.com/photo-147011471...	NULL	1995-06-28	2
4	john@gmail.com	root	https://picsum.photos/200/300	5.00	NULL	0
5	smith@gmail.com	root	https://picsum.photos/200/300	18.00	1999-02-14	1
NULL	NULL	NULL	NULL	NULL	NULL	NULL

The 'Output' pane at the bottom displays an 'Action Output' table with the following data:

#	Time	Action	Message	Duration / Fetch
1	13:34:55	SELECT * FROM FA22_33...	5 row(s) returned	0.000 sec / 0.000 sec

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

web_user user_role - Table web_user - Table user_role x web_user user_role

Limit to 1000 rows

```

1 • SELECT user_role_type, user_email
2 FROM FA22_3308_tuo21314.web_user
3 inner join FA22_3308_tuo21314.user_role
4 on web_user.user_role_id = user_role.user_role_id
5 order by user_role_type, user_email
6

```

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

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

	user_role_type	user_email
▶	Admin	john@gmail.com
	Admin	steve123j@gmail.com
	Member	dirtbike@gmail.com
	Member	smith@gmail.com
	View	steve@temple.edu

Result 19 x | Read Only | Context Help | Snippets

Output

Action Output

#	Time	Action	Message	Duration / Fetch
✓ 1	18:11:26	SELECT user_role_type, user_email FROM FA22_3308_tuo21314.web_u...	5 row(s) returned	0.000 sec / 0.000 sec

f) **“OTHER”**: all rows, all columns, sorted by the id of your “other” table.

plants - Table plants web_user

Limit to 1000 rows

```

1 • SELECT * FROM FA22_3308_tuo21314.plants ORDER BY plant_id;

```

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

plant_id	plant_name	plant_image	plant_latitude	plant_longitude	plant_description	plant_region	plant_season	web_user_id
2	Western Red Cedar	http://cis-linux2.temple.edu:8080/FA22_3308_...	39.98277893	-75.15346284	Western red cedar, (<i>Thuja plicata</i>), also called western arborvitae...	West	Year-round	2
3	Water Lily	https://images.unsplash.com/photo-153306663...	36.78697398	-117.16728616	The saguaro (<i>Carnegiea gigantea</i>) is a tree-like cactus species in t...	South West	Year-round	3
4	Ipomoea indica	http://cis-linux2.temple.edu:8080/FA22_3308_...	39.98215415	-75.15977140	Ipomoea indica is a vigorous, long-lived, tender perennial vine nati...	Northern	Spring, Summer	1
5	Saguaro	https://images.unsplash.com/photo-155916058...	34.19330172	-113.08037203	Opuntia, commonly called prickly pear or pear cactus, is a genus o...	South West	Year-round	4
6	Prickly Pear Cactus	https://images.unsplash.com/photo-156614699...	38.44454584	-89.64524645	Any of several species of flowering plants belonging to the aster f...	Northern	Spring	5
7	Daisy	https://images.unsplash.com/photo-147455715...	29.72573577	-82.06467984	Family of about 60 species in 4 genera of freshwater flowering pla...	South	Summer	2
11	Lilac	https://images.unsplash.com/photo-161185932...	33.13708198	-88.83225767	An oak is a tree or shrub in the genus <i>Quercus</i> (<i>/kwɪˈrʊks/</i> [1] La...	Northern	Spring, Summer, Fall	3
12	Oak	https://images.unsplash.com/photo-154195606...	36.87917231	-89.93089043	Acer (<i>/ˈeɪʃər/</i>) is a genus of trees and shrubs commonly known as...	Northern	Spring, Summer, Fall	1
14	Maple	https://images.unsplash.com/photo-159885772...	47.41284107	-73.84690629	A pine is any conifer tree or shrub in the genus <i>Pinus</i> (<i>/pɪˈnjuːs/</i>) [...]	Northern	Year-round	1
15	Pine	https://images.unsplash.com/photo-159885772...	47.41284107	-73.84690629	A pine is any conifer tree or shrub in the genus <i>Pinus</i> (<i>/pɪˈnjuːs/</i>) [...]	Northern	Year-round	1

plants 5 x | Apply

Output

Action Output

#	Time	Action	Message
✓ 1	10:58:15	SELECT * FROM FA22_3308_tuo21314.plants OR...	10 row(s) returned

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

plants - Table | plants | web_user

Limit to 1000 rows

```

1 • SELECT plant_name, user_email FROM FA22_3308_tuo21314.plants
2   INNER JOIN FA22_3308_tuo21314.web_user
3   ON plants.web_user_id = web_user.web_user_id
4   ORDER BY plant_name, user_email;

```

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

plant_name	user_email
Daisy	smith@gmail.com
Ipomoea indica	steve123j@gmail.com
Lilac	dirtbike@gmail.com
Maple	steve123j@gmail.com
Oak	steve@temple.edu
Pine	steve123j@gmail.com
Prickly Pear Cactus	john@gmail.com
Saguaro	steve123j@gmail.com
Water Lily	steve@temple.edu
Western Red Cedar	dirtbike@gmail.com

Result 8 | Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	13:09:21	SELECT plant_n...	10 row(s) returned	0.015 sec / 0.000 sec

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

plants - Table | plants | web_user | plants

Limit to 1000 rows

```

1 • SELECT plant_name, user_email FROM FA22_3308_tuo21314.plants
2   INNER JOIN FA22_3308_tuo21314.web_user
3   ON plants.web_user_id = web_user.web_user_id
4   WHERE plant_name LIKE "P%" or user_email LIKE "S%"
5   ORDER BY plant_name, user_email;

```

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

plant_name	user_email
Daisy	smith@gmail.com
Ipomoea indica	steve123j@gmail.com
Maple	steve123j@gmail.com
Oak	steve@temple.edu
Pine	steve123j@gmail.com
Prickly Pear Cactus	john@gmail.com
Saguaro	steve123j@gmail.com
Water Lily	steve@temple.edu

Result 15 | Read Only

Output

Action Output

#	Time	Action	Message	Duration / Fetch
1	13:16:36	SELECT plant_n...	8 row(s) returned	0.016 sec / 0.000 sec