

1. STUDENT NAME: Bradley Dinger

2. URL to STUDENT WEB SITE:

[http://cis-linux2.temple.edu:8080/SP22\\_3308\\_tuk81273/index.html](http://cis-linux2.temple.edu:8080/SP22_3308_tuk81273/index.html)

3. user\_role TABLE DESIGN

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










		Table Name: <input type="text" value="web_user"/>	Schema: <b>SP22_3308_tuk81273</b>							
Column Name	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 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(300)	<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(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"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	









	Table Name: <input type="text" value="web_user"/>	Schema: <b>SP22_3308_tuk81273</b>
	Collation: <input type="text" value="latin1 - default collation"/>	Engine: <input type="text" value="InnoDB"/>
Comments: <input type="text"/>		

Foreign Key Name	Referenced Table	Column	Referenced Column
web_user_ibfk_1	SP22_3308_tuk81273.`user_role`	<input type="checkbox"/> web_user_id	
		<input type="checkbox"/> user_email	
		<input type="checkbox"/> user_password	
		<input type="checkbox"/> image	
		<input type="checkbox"/> membership_fee	
		<input type="checkbox"/> birthday	
		<input checked="" type="checkbox"/> user_role_id	user_role_id


## 5. "OTHER" TABLE DESIGN and FOREIGN KEY

artwork - Table × user\_role - Table web\_user - Table artwork

 Table Name:  Schema: **SP22\_3308\_tuk81273**

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
 artwork_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"/>	
 artwork_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"/>	
 image	VARCHAR(200)	<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"/>	
 year_completed	INT(11)	<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
 copies	INT(11)	<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
 artwork_description	VARCHAR(400)	<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
 type	VARCHAR(20)	<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"/>	
 web_user_id	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"/>	

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 Table Name:  Schema: **SP22\_3308\_tuk81273**

Collation:  Engine:

Comments:

Foreign Key Name	Referenced Table
artwork_ibfk_1	`SP22_3308_tuk81273`.`web_user`

Column	Referenced Column
<input type="checkbox"/> artwork_id	
<input type="checkbox"/> artwork_name	
<input type="checkbox"/> image	
<input type="checkbox"/> year_completed	
<input type="checkbox"/> copies	
<input type="checkbox"/> artwork_descript..	
<input type="checkbox"/> type	
<input checked="" type="checkbox"/> web_user_id	web_user_id

Columns Indexes **Foreign Keys** Triggers Partitioning Options

## 6. DATA ENTRY ERRORS

### a) Error: Duplicate user\_role PK

Message Log

```
Executing:
INSERT INTO `SP22_3308_tuk81273`.`user_role` (`user_role_type`, `user_role_id`) VALUES ('2',
'njds');

Operation failed: There was an error while applying the SQL script to the database.
ERROR 1062: 1062: Duplicate entry '2' for key 'PRIMARY'
SQL Statement:
INSERT INTO `SP22_3308_tuk81273`.`user_role` (`user_role_type`, `user_role_id`) VALUES ('2',
'njds')
```

### 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:
UPDATE `SP22_3308_tuk81273`.`web_user` SET `user_role_id`='4' WHERE `web_user_id`='7';

ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`SP22_3308_tuk81273`.`web_user`, CONSTRAINT `web_user_fk1` FOREIGN KEY (`user_role_id`)
REFERENCES `user_role` (`user_role_id`) ON DELETE NO ACTION ON UPDATE NO ACTION)
SQL Statement:
UPDATE `SP22_3308_tuk81273`.`web_user` SET `user_role_id`='4' WHERE `web_user_id`='7'
```

c) Error: Cannot delete a user\_role record that's referenced by a web\_user record

Message Log

```
Executing:
DELETE FROM `SP22_3308_tuk81273`.`user_role` WHERE `user_role_id` = '2';

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
(`SP22_3308_tuk81273`.`web_user`, CONSTRAINT `web_user_ibfk_2` FOREIGN KEY (`user_role_id`)
REFERENCES `user_role` (`user_role_id`))
SQL Statement:
DELETE FROM `SP22_3308_tuk81273`.`user_role` WHERE `user_role_id` = '2'
```

d) Invalid web\_user FK in "other" record

#### Message Log

```
Executing:
UPDATE `SP22_3308_tuk81273`.`artwork` SET `web_user_id`='10' WHERE `artwork_id`='11';

Operation failed: There was an error while applying the SQL script to the database.
ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`SP22_3308_tuk81273`.`artwork`, CONSTRAINT `artwork_ibfk_1` FOREIGN KEY (`web_user_id`)
REFERENCES `web_user` (`web_user_id`))
SQL Statement:
UPDATE `SP22_3308_tuk81273`.`artwork` SET `web_user_id`='10' WHERE `artwork_id`='11'
```

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

#### Message Log

```
Executing:
DELETE FROM `SP22_3308_tuk81273`.`web_user` WHERE `web_user_id`='2';

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
(`SP22_3308_tuk81273`.`artwork`, CONSTRAINT `artwork_ibfk_1` FOREIGN KEY (`web_user_id`)
REFERENCES `web_user` (`web_user_id`))
SQL Statement:
DELETE FROM `SP22_3308_tuk81273`.`web_user` WHERE `web_user_id`='2'
```

## 7. SELECT STATEMENTS

a) USER\_ROLE: all rows, all columns, sorted by user\_role\_id.

1	•	SELECT * FROM SP22_3308_tuk81273.web_user
2		order by web_user_id;

web_user_id	user_email	user_password	image	membership_fee	birthday	user_role_id
1	tuk81273@temple.edu	pass	pic	999.00	1990-02-12	0
2	tuh88836@temple.edu	password	user	10.00	2000-12-20	1
3	ioe	222222222222	NULL	NULL	NULL	1
4	jill	1234567	NULL	NULL	NULL	2
5	tiffanv	tifidf	NULL	NULL	NULL	1
6	mark	passinf	NULL	15.00	NULL	2
7	emial	passwordd	emial	NULL	NULL	0
NULL	NULL	NULL	NULL	NULL	NULL	NULL

web_user 3	×
------------	---

#	Time	Action	Message
✓ 1	15:18:15	SELECT * FROM SP22_3308_tuk81273.web_user order by web_user_id LIMIT 0, 10...	7 row(s) returned

b) WEB\_USER: all rows, all columns, sorted by web\_user\_id.

1	•	SELECT * FROM SP22_3308_tuk81273.user_role
2		order by user_role_id;

user_role_id	user_role_type
0	admin
1	member
2	view
NULL	NULL

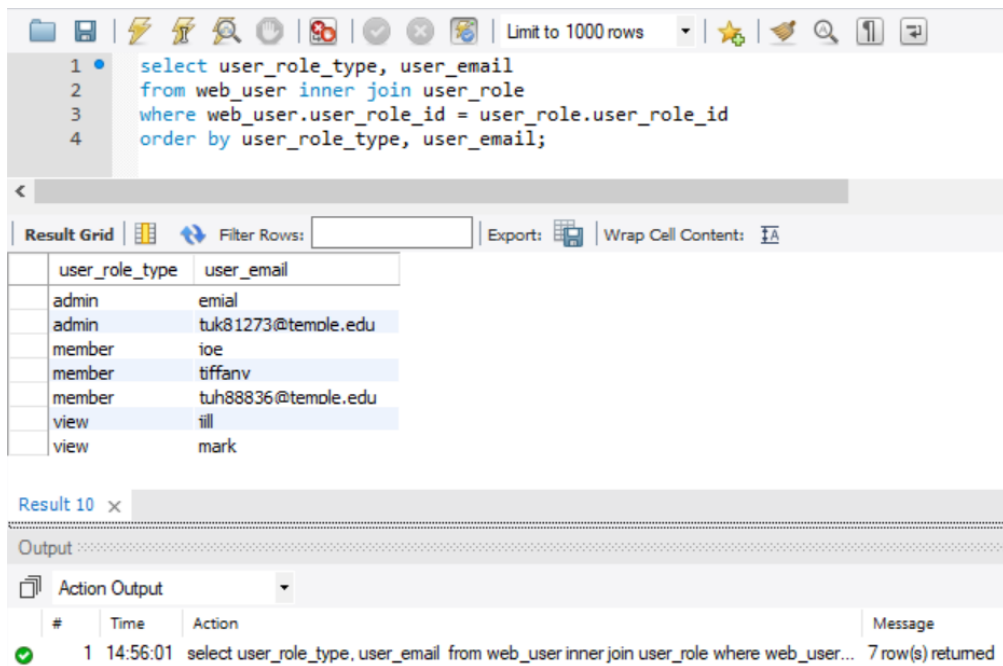
  

user_role 2	×
-------------	---

#	Time	Action	Message
✓ 1	15:19:36	SELECT * FROM SP22_3308_tuk81273.user_role order by user_role_id LIMIT 0, 1000	3 row(s) returned

c) WEB\_USER JOINED WITH USER\_ROLE: all rows, certain columns, sorted.



The screenshot shows a database query interface. The SQL query is as follows:

```
1 select user_role_type, user_email
2 from web_user inner join user_role
3 where web_user.user_role_id = user_role.user_role_id
4 order by user_role_type, user_email;
```

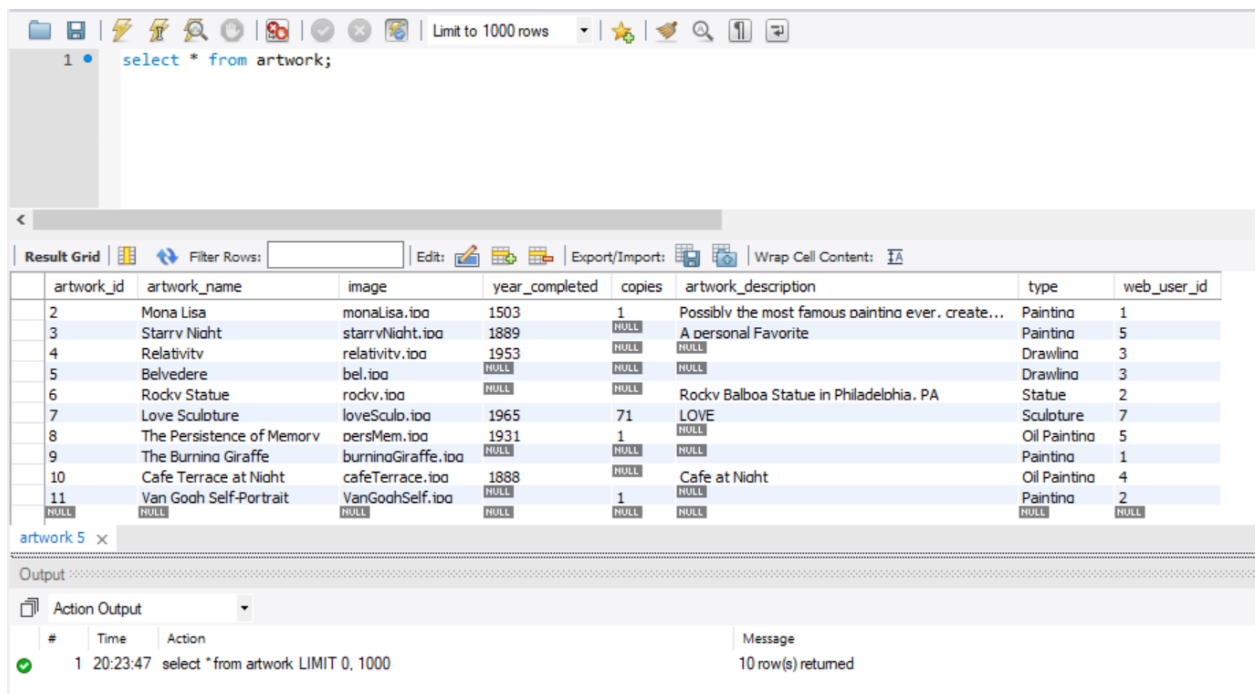
The results are displayed in a table with two columns: `user_role_type` and `user_email`.

user_role_type	user_email
admin	emial
admin	tuk81273@temple.edu
member	ioe
member	tiffanv
member	tuh88836@temple.edu
view	till
view	mark

Below the table, the output shows the action output for the query:

```
1 14:56:01 select user_role_type, user_email from web_user inner join user_role where web_user... 7 row(s) returned
```

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



The screenshot shows a database query interface. The SQL query is as follows:

```
1 select * from artwork;
```

The results are displayed in a table with columns: `artwork_id`, `artwork_name`, `image`, `year_completed`, `copies`, `artwork_description`, `type`, and `web_user_id`.

artwork_id	artwork_name	image	year_completed	copies	artwork_description	type	web_user_id
2	Mona Lisa	monaLisa.jpg	1503	1	Possibly the most famous painting ever. create...	Painting	1
3	Starry Night	starryNicht.jpg	1889	NULL	A personal Favorite	Painting	5
4	Relativity	relativity.jpg	1953	NULL	NULL	Drawing	3
5	Belvedere	bel.jpg	NULL	NULL	NULL	Drawing	3
6	Rocky Statue	rocky.jpg	NULL	NULL	Rocky Balboa Statue in Philadelphia, PA	Statue	2
7	Love Sculpture	loveSculp.jpg	1965	71	LOVE	Sculpture	7
8	The Persistence of Memory	persMem.jpg	1931	1	NULL	Oil Painting	5
9	The Burning Giraffe	burningGiraffe.jpg	NULL	NULL	NULL	Painting	1
10	Cafe Terrace at Night	cafeTerrace.jpg	1888	NULL	Cafe at Night	Oil Painting	4
11	Van Gogh Self-Portrait	VanGoghSelf.jpg	NULL	1	NULL	Painting	2
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Below the table, the output shows the action output for the query:

```
1 20:23:47 select * from artwork LIMIT 0, 1000 10 row(s) returned
```

e) "OTHER" JOINED WITH WEB\_USER all rows, certain columns, sorted.

1	•	select artwork_description, user_email from artwork inner join web_user
2		where artwork.web_user_id = web_user.web_user_id
3		order by artwork_description, user_email;

artwork_description	user_email
NUL	ioe
NUL	ioe
NUL	tiffanv
NUL	tuh88836@temple.edu
NUL	tuk81273@temple.edu
A personal Favorite	tiffanv
Cafe at Night	till
LOVE	emial
Possibly the most famous painting ever. create...	tuk81273@temple.edu
Rocky Balboa Statue in Philadelphia. PA	tuh88836@temple.edu

Result 8 ×

Output

Action Output

#	Time	Action	Message
✓ 4	20:29:18	SELECT * FROM SP22_3308_tuk81273.artwork LIMIT 0, 1000	10 row(s) returned
✓ 5	20:29:40	select artwork_description, user_email from artwork inner join web_user where artw...	10 row(s) returned

f) "OTHER" JOINED WITH WEB\_USER some rows, certain columns, sorted.

1	•	select artwork_description, user_email from artwork inner join web_user
2		where artwork.web_user_id = web_user.web_user_id and artwork_id > 4
3		order by artwork_description, user_email;

artwork_description	user_email
NUL	tiffanv
NUL	tuh88836@temple.edu
NUL	tuk81273@temple.edu
Cafe at Night	till
LOVE	emial

Result 9 

Output 

 Action Output 

	#	Time	Action	Message
	5	20:29:40	select artwork_description, user_email from artwork inner join web_user where artw...	10 row(s) returned
	6	20:31:33	select artwork_description, user_email from artwork inner join web_user where artw...	5 row(s) returned