




1. STUDENT NAME: **Evan Peachey**









2. URL to STUDENT WEB SITE



[BikeHub](#)

3. user\_role TABLE DESIGN

user_role - Table × user_role											
		Table Name: user_role								Schema: fa24_3308_tuo18991	
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

user_role - Table user_role web_user - Table ×											
		Table Name: web_user								Schema: fa24_3308_tuo18991	
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 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_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"/>		

web_user web_user - Table ×													
		Table Name: web_user								Schema: fa24_3308_tuo18991			
		Charset/Collation:	Default Charset			Default Collation			Engine:	InnoDB			
		Comments:	<div></div>										
Foreign Key Name		Referenced Table		Column		Referenced Column		Foreign Key Options					
web_user_ibfk_1		fa24_3308_tuo18991`.`user_role`						On Update: <div></div>					
								On Delete: <div></div>					
								<input type="checkbox"/> Skip in SQL generation					

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

web\_user

user\_bike

user\_bike

user\_bike - Table




Table Name:

Schema: **fa24\_3308\_tuo18991**

Charset/Collation:

Engine:

Comments:

umn Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
bike_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"/>	
bike_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"/>	
bike_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
bike_price	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
year_manufactured	YEAR(4)	<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
bike_brand	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
bike_model	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
bike_type	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"/>	

user\_bike - Table

web\_user - Table



Table Name:

Schema: **fa24\_330**

Charset/Collation:

Default Collation:

Engine:


Comments:

## 6. DATA ENTRY ERRORS

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

#### 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

```
Executing:
INSERT INTO `fa24_3308_tuo18991`.`user_role` (`user_role_id`, `user_role_type`) VALUES ('1',
'ADMIN1');

Operation failed: There was an error while applying the SQL script to the database.
ERROR 1062: 1062: Duplicate entry '1' for key 'PRIMARY'
SQL Statement:
INSERT INTO `fa24_3308_tuo18991`.`user_role` (`user_role_id`, `user_role_type`) VALUES ('1',
'ADMIN1')
```

### b) Error: Invalid user\_role FK in web\_user record

 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:
UPDATE `fa24_3308_tuo18991`.`web_user` SET `user_role_id` = '3' WHERE (`web_user_id` = '3');

ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`fa24_3308_tuo18991`.`web_user`, CONSTRAINT `web_user_ibfk_1` FOREIGN KEY (`user_role_id`)
REFERENCES `user_role` (`user_role_id`))
SQL Statement:
UPDATE `fa24_3308_tuo18991`.`web_user` SET `user_role_id` = '3' WHERE (`web_user_id` = '3')
```

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

 Execute SQL Statements

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

Message Log

```
Executing:
UPDATE `fa24_3308_tuo18991`.`user_role` SET `user_role_type` = NULL WHERE (`user_role_id` = '1');

Operation failed: There was an error while applying the SQL script to the database.
ERROR 1048: 1048: Column 'user_role_type' cannot be null
SQL Statement:
UPDATE `fa24_3308_tuo18991`.`user_role` SET `user_role_type` = NULL WHERE (`user_role_id` = '1')
```

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


Apply SQL Script to Database

Review SQL Script

Apply SQL Script

### 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:
UPDATE `fa24_3308_tuo18991`.`user_bike` SET `web_user_id` = '6' WHERE (`bike_id` = '11');

ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`fa24_3308_tuo18991`.`user_bike`, CONSTRAINT `user_bike_ibfk_1` FOREIGN KEY (`web_user_id`)
REFERENCES `web_user` (`web_user_id`))
SQL Statement:
UPDATE `fa24_3308_tuo18991`.`user_bike` SET `web_user_id` = '6' WHERE (`bike_id` = '11')
```

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

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

```
Executing:
DELETE FROM `fa24_3308_tuo18991`.`web_user` WHERE (`web_user_id` = '5');

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_tuo18991`.`user_bike`, CONSTRAINT `user_bike_ibfk_1` FOREIGN KEY (`web_user_id`)
REFERENCES `web_user` (`web_user_id`))
SQL Statement:
DELETE FROM `fa24_3308_tuo18991`.`web_user` WHERE (`web_user_id` = '5')
```

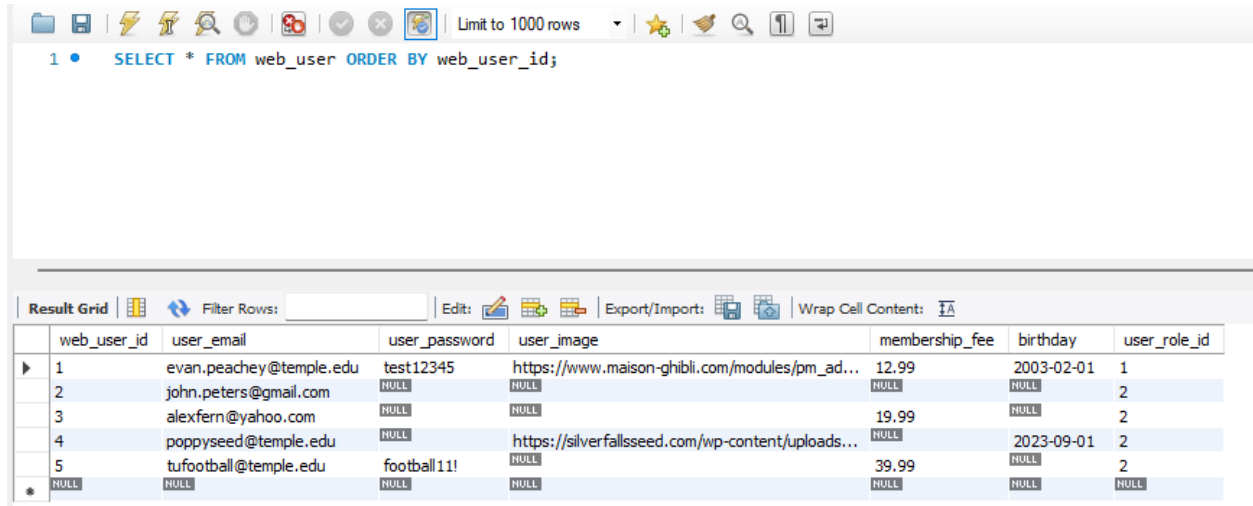
## 7. SELECT STATEMENTS

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

The screenshot shows a database management interface. At the top, there is a toolbar with various icons. Below the toolbar, a SQL query is entered in a text area: `1 • SELECT * FROM user_role ORDER BY user_role_id;`. Below the query area, there is a section for the results. It includes a "Result Grid" button, a "Filter Rows:" input field, and an "Edit:" button. The results are displayed in a table with two columns: "user\_role\_id" and "user\_role\_type". The table contains two rows: one with "1" and "ADMIN", and another with "2" and "MEMBER". There is also a row with "NULL" and "NULL". On the right side of the interface, there are buttons for "Result Grid" and "Form Editor".

user_role_id	user_role_type
1	ADMIN
2	MEMBER
NULL	NULL

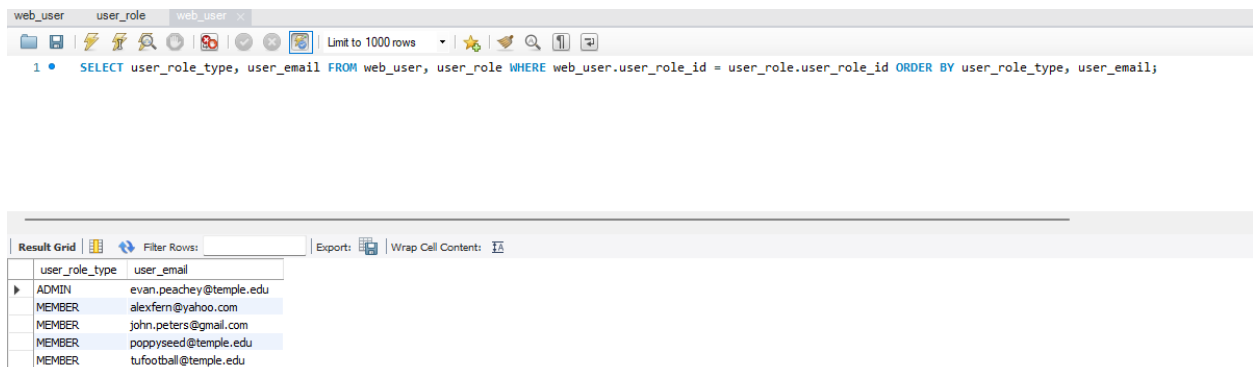
b) WEB\_USER: all rows, all columns, sorted by web\_user\_id.



The screenshot shows a database query interface. The SQL query entered is `SELECT * FROM web_user ORDER BY web_user_id;`. The result grid displays the following data:

web_user_id	user_email	user_password	user_image	membership_fee	birthday	user_role_id
1	evan.peachey@temple.edu	test12345	https://www.maison-ghibli.com/modules/pm_ad...	12.99	2003-02-01	1
2	john.peters@gmail.com	NULL	NULL	NULL	NULL	2
3	alexfern@yahoo.com	NULL	NULL	19.99	NULL	2
4	poppyseed@temple.edu	NULL	https://silverfallsseed.com/wp-content/uploads...	NULL	2023-09-01	2
5	tufotball@temple.edu	football11!	NULL	39.99	NULL	2
*	NULL	NULL	NULL	NULL	NULL	NULL

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



The screenshot shows a database query interface. The SQL query entered 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 result grid displays the following data:

user_role_type	user_email
ADMIN	evan.peachey@temple.edu
MEMBER	alexfern@yahoo.com
MEMBER	john.peters@gmail.com
MEMBER	poppyseed@temple.edu
MEMBER	tufotball@temple.edu

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

Limit to 1000 rows

```
1 • SELECT * FROM user_bike SORTED ORDER BY bike_id;
```

	bike_id	bike_name	bike_image	bike_price	year_manufactured	bike_brand	bike_model	bike_type	web_user_id
▶	1	Speed Demon	https://c02.purpledshub.com/uploads/sites/39/...	1999.99	2023	Trek	Emonda	Road	1
	2	Mountaineer		159.99	1999	NULL	NULL	Mountain	1
	3	Black Betty	https://c02.purpledshub.com/uploads/sites/39/...	4499.99	2024	Giant	Propel	Road	1
	4	Bike1	NULL	NULL	2003	Specialized	NULL	Mountain	2
	5	Bike2	NULL	NULL	NULL	NULL	NULL	Road	2
	6	Fixie	https://upload.wikimedia.org/wikipedia/common...	250.00	2014	NULL	NULL	Fixed	3
	7	Bike3	NULL	NULL	NULL	NULL	NULL	NULL	4
	8	Bike4	NULL	NULL	NULL	NULL	NULL	NULL	4
	9	Bike5	NULL	NULL	NULL	NULL	NULL	NULL	5
	10	Bike6	NULL	NULL	NULL	NULL	NULL	NULL	5
	11	Bike7	NULL	NULL	NULL	NULL	NULL	NULL	5
*	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

user\_bike 1 x

Output

Action Output

#	Time	Action	Message
✓ 1	15:04:22	SELECT * FROM user_bike SORTED ORDER BY bike_id LIMIT 0, 1000	11 row(s) returned

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

web\_user user\_bike user\_bike user\_bike - Table

Limit to 1000 rows

```
1 • SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id ORDER BY user_email, bike_name;
```

Result Grid

	bike_name	user_email
▶	Fixie	alexfern@yahoo.com
	Black Betty	evan.peachey@temple.edu
	Mountaineer	evan.peachey@temple.edu
	Speed Demon	evan.peachey@temple.edu
	Bike1	john.peters@gmail.com
	Bike2	john.peters@gmail.com
	Bike3	poppyseed@temple.edu
	Bike4	poppyseed@temple.edu
	Bike5	tufootball@temple.edu
	Bike6	tufootball@temple.edu
	Bike7	tufootball@temple.edu

Result 5 x

Output

Action Output

#	Time	Action	Message
✓ 4	10:29:33	SELECT bike_name, user_email FROM user_bike, web_user ORDER BY bike_name, user_email LIMIT 0, 1000	55 row(s) returned
✗ 5	10:32:51	SELECT bike_name, user_email FROM user_bike, web_user WHERE bike_user.web_user_id = web_user.web_user_id ORDER BY bike_name, use...	Error Code: 1064. You have an error in your SQL syntax
✗ 6	10:33:11	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id ORDER BY bike_name, use...	Error Code: 1064. You have an error in your SQL syntax
✓ 7	10:33:40	SELECT * FROM fa24_3308_tuo18991.user_bike LIMIT 0, 1000	11 row(s) returned
✓ 8	10:34:04	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id ORDER BY bike_name, use...	11 row(s) returned
✓ 9	10:34:27	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id ORDER BY user_email, bik...	11 row(s) returned



h) “OTHER” JOINED WITH WEB\_USER some rows, certain columns, sorted.

The screenshot shows a SQL IDE interface with a query editor at the top and a results panel at the bottom. The query editor contains the following SQL statement:

```
1 • SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id AND user_email = 'tufootball@temple.edu' ORDER BY user_email, bike_name;
```

The results panel displays a table with two columns: `bike_name` and `user_email`. The table contains three rows, all with the same email address:

bike_name	user_email
Bike5	tufootball@temple.edu
Bike6	tufootball@temple.edu
Bike7	tufootball@temple.edu

Below the results panel, the 'Output' tab is selected, showing a log of SQL actions and their messages:

#	Time	Action	Message
7	10:33:40	SELECT * FROM fa24_3308_tuo18991 user_bike LIMIT 0, 1000	11 row(s) returned
8	10:34:04	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id ORDER BY bike_name, use...	11 row(s) returned
9	10:34:27	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id ORDER BY user_email, bik...	11 row(s) returned
10	10:41:06	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id, web_user.user_email = tufo...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MariaDB s
11	10:41:26	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id, user_email tufootball@temp...	Error Code: 1064. You have an error in your SQL syntax; check the manual that corresponds to your MariaDB s
12	10:43:13	SELECT bike_name, user_email FROM user_bike, web_user WHERE user_bike.web_user_id = web_user.web_user_id AND user_email = tufootball...	3 row(s) returned