

1. STUDENT NAME
  - a. Joshua Deland
2. URL to STUDENT WEB SITE
  - a. [All About Cameras](#)
3. user\_role TABLE DESIGN

web\_user - Table

user\_role - Table x




Table Name:

user\_role

Schema:

sp23\_3308\_tuo07755



Collation:

latin1 - default collation








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

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G
 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"/>
 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"/>
 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"/>
 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"/>

Foreign Key Name	Referenced Table
web_user_ibfk_1	`sp23_3308_tuo07755`.`user_role`

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














Table Name:

Schema: **sp23\_3308\_tuo07755**

Collation:

Engine:

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
 user_camera_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"/>	
 brand	VARCHAR(30)	<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"/>	
 model	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"/>	
 price	FLOAT	<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"/>	
 type	VARCHAR(30)	<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
 condition	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"/>	
 megapixels	FLOAT	<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_made	INT(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
 primary_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"/>	
 description	VARCHAR(1000)	<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"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Foreign Key Name	Referenced Table
web_user_id	`sp23_3308_tuo07755`.`web_user`

## 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 `sp23_3308_tuo07755`.`user_role` (`user_role_id`, `user_role_type`) VALUES (1, 'Seller');
INSERT INTO `sp23_3308_tuo07755`.`user_role` (`user_role_id`, `user_role_type`) VALUES (1, 'Buyer');

ERROR 1062: Duplicate entry '1' for key 'PRIMARY'
SQL Statement:
INSERT INTO `sp23_3308_tuo07755`.`user_role` (`user_role_id`, `user_role_type`) VALUES (1, 'Buyer')

Operation failed: There was an error while applying the SQL script to the database.
```

1 • SELECT \* FROM sp23\_3308\_tuo07755.user\_role;

user_role_id	user_role_type
2	Buyer
1	Seller
NULL	NULL

user\_role 1 x

Output


Action Output

#	Time	Action
18	14:08:13	INSERT INTO `sp23_3308_tuo07755`.`web_user` (`user_email`, `user_passw`)
19	14:08:56	INSERT INTO `sp23_3308_tuo07755`.`web_user` (`user_email`, `user_passw`)
20	14:12:40	DELETE FROM `sp23_3308_tuo07755`.`user_role` WHERE `user_role_id`=1
21	14:20:46	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
22	14:21:02	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000

## b) Error: Invalid user\_role FK in web\_user 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 `sp23\_3308\_tuo07755`.`web\_user` (`user\_email`, `user\_password`, `image`, `membership\_fee`, `birthday`, `user\_role\_id`) VALUES ('bird@bird.com', 'brid', 'foa', '444', '42/32/32', '55');  
  
ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails  
(`sp23\_3308\_tuo07755`.`web\_user`, CONSTRAINT `web\_user\_ibfk\_1` FOREIGN KEY (`user\_role\_id`) REFERENCES `user\_role` (`user\_role\_id`))  
SQL Statement:  
INSERT INTO `sp23\_3308\_tuo07755`.`web\_user` (`user\_email`, `user\_password`, `image`, `membership\_fee`, `birthday`, `user\_role\_id`) VALUES ('bird@bird.com', 'brid', 'foa', '444', '42/32/32', '55')

user\_role web\_user web\_user user\_role user\_role web\_user x

Limit to 1000 rows

1 • SELECT \* FROM sp23\_3308\_tuo07755.web\_user;

Result Grid Filter Rows: Edit: Export/Imports

	web_user_id	user_email	user_password	image	membership_fee	birthday	user_role
	14	dad@dad.com	dad	dad	54.00	0000-00-00	1
	15	mom@mom.com	mom	fewa	53.00	0000-00-00	2
	16	bro@bro.com	bro	ea	4.00	0001-01-12	2
	17	sis@sis.com	efio	ea	99.00	0000-00-00	1
	18	doo@doo.com	daa	fei	43.00	0004-01-12	1
	19	cat@cat.com	cat	fao	4333.00	0000-00-00	1
	HULL	HULL	HULL	HULL	HULL	HULL	HULL

web\_user 1 x App

Output


Action Output

#	Time	Action
19	14:08:56	INSERT INTO `sp23_3308_tuo07755`.`web_user` (`user_email`, `user_password`, `image`, `me
20	14:12:40	DELETE FROM `sp23_3308_tuo07755`.`user_role` WHERE `user_role_id`='1'
21	14:20:46	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
22	14:21:02	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
23	14:21:54	SELECT * FROM sp23_3308_tuo07755.web_user LIMIT 0, 1000

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


```
Executing:
DELETE FROM `sp23_3308_tuo07755`.`user_role` WHERE `user_role_id`='1';

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
(`sp23_3308_tuo07755`.`web_user`, CONSTRAINT `web_user_ibfk_1` FOREIGN KEY (`user_role_id`)
REFERENCES `user_role` (`user_role_id`))
SQL Statement:
DELETE FROM `sp23_3308_tuo07755`.`user_role` WHERE `user_role_id`='1'
```

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 `sp23_3308_tuo07755`.`user_camera` (`brand`, `model`, `price`, `type`, `condition`,
`megapixels`, `year_made`, `primary_image`, `description`, `web_user_id`) VALUES ('Panasonic',
'Lumix S3', '775.00', 'Mirrorless', 'Used', '23.4', '2015', 'lumixs3.jpg', 'This record will fail', '99');

ERROR 1452: 1452: Cannot add or update a child row: a foreign key constraint fails
(`sp23_3308_tuo07755`.`user_camera`, CONSTRAINT `web_user_id` FOREIGN KEY (`web_user_id`)
REFERENCES `web_user` (`web_user_id`) ON DELETE NO ACTION ON UPDATE NO ACTION)
SQL Statement:
INSERT INTO `sp23_3308_tuo07755`.`user_camera` (`brand`, `model`, `price`, `type`, `condition`,
`megapixels`, `year_made`, `primary_image`, `description`, `web_user_id`) VALUES ('Panasonic',
'Lumix S3', '775.00', 'Mirrorless', 'Used', '23.4', '2015', 'lumixs3.jpg', 'This record will fail', '99')
```

e) Error trying to delete a web\_user record that's referenced by an “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:
DELETE FROM `sp23_3308_tuo07755`.`web_user` WHERE `web_user_id` = '16';

ERROR 1451: 1451: Cannot delete or update a parent row: a foreign key constraint fails
(`sp23_3308_tuo07755`.`user_camera`, CONSTRAINT `web_user_id` FOREIGN KEY (`web_user_id`)
REFERENCES `web_user` (`web_user_id`) ON DELETE NO ACTION ON UPDATE NO ACTION)
SQL Statement:
DELETE FROM `sp23_3308_tuo07755`.`web_user` WHERE `web_user_id` = '16'
```

## 7. SELECT STATEMENTS

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

The screenshot displays a database management interface. At the top, a toolbar includes icons for file operations, execution, and a 'Limit to 1000 rows' dropdown. Below the toolbar, a SQL editor contains the query: `SELECT * FROM sp23_3308_tuo07755.user_role;`. The results are shown in a 'Result Grid' with columns 'user\_role\_id' and 'user\_role\_type'. The grid contains three rows: a header row, a row with '2' and 'Buver', and a row with '1' and 'Seller'. Below the grid, a tab labeled 'user\_role 1' is active. The 'Output' section shows a list of actions with their status, timestamps, and SQL statements.

	user_role_id	user_role_type
	2	Buver
	1	Seller
	NULL	NULL

	#	Time	Action
✗	18	14:08:13	INSERT INTO 'sp23_3308_tuo07755'.web_user ('user_email', 'user_passw
✗	19	14:08:56	INSERT INTO 'sp23_3308_tuo07755'.web_user ('user_email', 'user_passw
✗	20	14:12:40	DELETE FROM 'sp23_3308_tuo07755'.user_role WHERE 'user_role_id'='1
✓	21	14:20:46	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
✓	22	14:21:02	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000

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

The screenshot shows a database management interface with a SQL editor at the top and a results grid below. The SQL editor contains the query: `SELECT * FROM sp23_3308_tuo07755.web_user;`. The results grid displays the following data:

	web_user_id	user_email	user_password	image	membership_fee	birthday	user_role
14		dad@dad.com	dad	dad	54.00	0000-00-00	1
15		mom@mom.com	mom	fewa	53.00	0000-00-00	2
16		bro@bro.com	bro	ea	4.00	0001-01-12	2
17		sis@sis.com	efio	ea	99.00	0000-00-00	1
18		doc@doc.com	daa	fei	43.00	0004-01-12	1
19		cat@cat.com	cat	fao	4333.00	0000-00-00	1
	NULL	NULL	NULL	NULL	NULL	NULL	NULL

Below the results grid, there is an 'Output' section showing a log of database actions:

#	Time	Action
19	14:08:56	INSERT INTO 'sp23_3308_tuo07755'.web_user ('user_email', 'user_password', 'image', 'me
20	14:12:40	DELETE FROM 'sp23_3308_tuo07755'.user_role WHERE 'user_role_id'='1'
21	14:20:46	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
22	14:21:02	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
23	14:21:54	SELECT * FROM sp23_3308_tuo07755.web_user LIMIT 0, 1000



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

The screenshot displays a database IDE interface. The top section shows a SQL editor with four lines of code:

```
1 SELECT * FROM sp23_3308_tuo07755.web_user;
2 SELECT web_user_id, user_role.user_role_id from web_user, user_role
3 ORDER BY web_user_id, user_role.user_role_id;
4
```

Below the editor is the 'Result Grid' section, which shows the results of the second query. The grid has two columns: 'web\_user\_id' and 'user\_role\_id'. The data is as follows:

web_user_id	user_role_id
14	1
14	2
15	1
15	2
16	1
16	2
17	1
17	2
18	1
18	2
19	1
19	2

The bottom section of the IDE shows the 'Action Output' tab, which lists the execution of the queries. The output is as follows:

#	Time	Action
21	14:20:46	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
22	14:21:02	SELECT * FROM sp23_3308_tuo07755.user_role LIMIT 0, 1000
23	14:21:54	SELECT * FROM sp23_3308_tuo07755.web_user LIMIT 0, 1000
24	14:28:38	SELECT * FROM sp23_3308_tuo07755.web_user LIMIT 0, 1000
25	14:28:38	SELECT web_user_id, user_role.user_role_id from web_user, user_role ORDER BY web_user_id, user...

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

user\_camera x

Limit to 1000 rows

1 • `SELECT * FROM sp23_3308_tuo07755.user_camera ORDER BY user_camera_id`

Result Grid Filter Rows: Edit: Export/Import: Wrap Cell Content: `Ctrl+T`

	user_camera_id	brand	model	price	type	condition	megapixels	year_made	primary_image	description
1	1	Canon	EOS R5	3699	Mirrorless	New	45	2020	eosr5.jpg	This is an awesome camera
2	2	Nikon	D3500	649.95	DSLR	Used	24.2	2018	d3500.jpg	Generational text I am in
3	3	Sony	A6000	450	Mirrorless	Refurbished	24.2	2014	a6000.jpg	NULL
4	4	Sony	A7R IV	2549.99		New	0	NULL	a7riv.jpg	NULL
5	5	Canon	EOS 90D	1599	DSLR	Used	30.3	2018	eos90d.jpg	This is description
6	6	Panasonic	Lumix S5 II	1997.99	Mirrorless	New	NULL	2019	lumixs5ii.jpg	Lumix is the best camera
7	7	Nikon	Z6 II	1996.95		Refurbished	50.5	NULL	z6ii.jpg	NULL
8	8	Pentax	K70	576.95	DSLR	Used	24.2	2016	k70.jpg	Pentax has a very long history
9	9	Sony	Cyber-shot DSC-RX100 VII	1298	Point-and-Shoot	New	0	2020	dscrx100vii.jpg	Small camera
10	10	Canon	EOS Rebel SL3	998	DSLR	Refurbished	30.3	NULL	eosrebelsl3.jpg	NULL
12	12	Panasonic	Lumix S3	775	Mirrorless	Used	23.4	2015	lumixs3.jpg	This record will fail
	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

user\_camera 3 x

Output

Action Output

#	Time	Action	Message
✓ 1	17:32:24	<code>SELECT * FROM sp23_3308_tuo07755.user_camera ORDER BY user_camera_id LIMIT 0, 1000</code>	11 row(s) returned

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

The screenshot shows a database query editor interface. At the top, there's a tab labeled 'user\_camera'. Below the tab, a toolbar contains various icons for file operations, execution, and viewing. The main area displays a SQL query:

```
1 SELECT user_email, model FROM web_user, user_camera
2 WHERE web_user.web_user_id = user_camera.web_user_id ORDER BY user_email, model;
```

Below the query editor, there's a 'Result Grid' section. It includes a 'Filter Rows' input field, an 'Export' button, and a 'Wrap Cell Content' checkbox. The grid displays the following data:

user_email	model
bro@bro.com	EOS R5
cat@cat.com	Lumix S5 II
dad@dad.com	D3500
dad@dad.com	K70
dog@dog.com	A6000
dog@dog.com	EOS 90D
dog@dog.com	EOS Rebel SL3
mom@mom.com	A7R IV
mom@mom.com	Cyber-shot DSC-RX100 VII
mom@mom.com	Lumix S3
sis@sis.com	Z6 II

Below the result grid, there's a 'Result 9' tab. Underneath it, the 'Output' section is visible, showing 'Action Output'. At the bottom, a log table displays the execution details:

#	Time	Action	Message
1	17:58:46	SELECT user_email, model FROM web_user, user_camera WHERE web_user.web_user_id = user_ca...	11 row(s) returned

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

The screenshot shows a database query editor interface. At the top, there's a tab labeled "user\_camera". Below the tab is a toolbar with various icons and a "Limit to 1000 rows" dropdown. The main area contains a SQL query:

```
1 SELECT user_email, model FROM web_user, user_camera
2 WHERE web_user.web_user_id = user_camera.web_user_id
3 AND user_email != "dog@dog.com" ORDER BY user_email, model;
```

Below the query editor is a "Result Grid" section. It has a "Filter Rows:" input field, an "Export:" button, and a "Wrap Cell Content:" checkbox. The grid displays the following data:

user_email	model
bro@bro.com	EOS R5
cat@cat.com	Lumix S5 II
dad@dad.com	D3500
dad@dad.com	K70
mom@mom.com	A7R IV
mom@mom.com	Cyber-shot DSC-RX100 VII
mom@mom.com	Lumix S3
sis@sis.com	Z6 II

At the bottom, there's an "Output" section with a dropdown menu set to "Action Output". It shows a log of actions:

#	Time	Action
1	18:03:58	SELECT user_email, model FROM web_user, user_camera WHERE web_user.web_user_id = user_ca...