

1. STUDENT NAME:

Andrew Rush

2. URL to STUDENT WEB SITE:

[https://cis-linux2.temple.edu/tomcat10/fa24\\_3308\\_tuj55961/index.html](https://cis-linux2.temple.edu/tomcat10/fa24_3308_tuj55961/index.html)

3. user\_role TABLE DESIGN

4. web\_user TABLE DESIGN and FOREIGN KEY

5. "OTHER" TABLE DESIGN and FOREIGN KEY

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

7. SELECT STATEMENTS

- a) USER\_ROLE: all rows, all columns, sorted by user\_role\_id.
- b) WEB\_USER: all rows, all columns, sorted by web\_user\_id.
- c) WEB\_USER JOINED WITH USER\_ROLE: all rows, certain columns, sorted.
- d) "OTHER": all rows, all columns, sorted by the id of your "other" table.
- e) "OTHER" JOINED WITH WEB\_USER all rows, certain columns, sorted.
- f) "OTHER" JOINED WITH WEB\_USER some rows, certain columns, sorted.

## Create user\_role






Table Name:

Schema: **fa24\_3308\_tuj55961**

Charset/Collation:

Engine:

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 checked="" type="checkbox"/>	<input type="checkbox"/>	
 user_role_type	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"/>	
		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

## Create web\_user











Table Name:

Schema: **fa24\_3308\_tuj55961**

Charset/Collation:

Engine:

Comments:

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
 user_image2	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(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
 birthdav	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

Column Name:

Data Type:

Charset/Collation:

Default:

Comments:

Storage: ☐ Virtual ☐ Stored

☐ Primary Key ☐ Not Null ☐ Unique

☐ Binary ☐ Unsigned ☐ Zero Fill

☐ Auto Increment ☐ Generated

Columns Indexes Foreign Keys Triggers Partitioning Options

Apply

Revert

\*instructions for this lab activity indicate that we should add two rows with “user\_image” in this step, from my screenshot you can see that I changed the name of one of them to “user\_image2”. This is because if I try to add two rows with the same column name, I get an error which prevents me from applying the SQL script to the database, regardless of the fact that the datatypes are different (500) and (600). Specifically, it generates: ERROR 1060: Duplicate column name ‘user\_image’

Add foreign key from web\_user to user\_role

Table Name:

Schema: **fa24\_3308\_tuj55961**

Charset/Collation:

Default Collation:

Engine:

Comments:

Foreign Key Name

Referenced Table

fk\_web\_user\_role

fa24\_3308\_tuj55961`.`user\_role`

Column

Referenced Column

☐ web\_user\_id

☐ user\_email

☐ user\_password

☐ user\_image

☐ user\_image2

☐ membership\_fee

☐ birthday

☒ user\_role\_id

user\_role\_id

Foreign Key Options

On Update:

On Delete:

☐ Skip in SQL generation

Foreign Key Comment

Columns

Indexes

Foreign Keys

Triggers

Partitioning

Options

Apply

Revert

Duplicate primary key error

#	Time	Action	Message
1	21:36:54	Apply changes to user_role	Changes applied
2	21:42:45	Apply changes to web_user	Error 1060: Duplicate column name 'user_image' SQL Statement: CREATE TABLE fa24_3308_tuj55961.`web_user` ( `web_user_id` INT(11) NOT NUL...
3	21:46:26	Apply changes to web_user	Changes applied
4	21:53:37	Apply changes to web_user	Changes applied
5	22:01:00	INSERT INTO user_role (user_role_id, user_role_type) VALUES (1, 'Admin'), (2, 'User')	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0
6	22:01:34	SELECT * FROM user_role LIMIT 0, 1000	2 row(s) returned
7	22:03:14	INSERT INTO user_role (user_role_id, user_role_type) VALUES (1, 'SuperUser')	Error Code: 1062. Duplicate entry '1' for key 'PRIMARY'

## User\_role data

The screenshot shows a SQL Developer window with a query editor containing SQL statements to create the `user_role` table and insert initial data. The `user_role` table has columns `user_role_id` (PK), `user_email`, `user_password`, `user_image`, `user_image2`, `membership_fee`, `birthday`, and `user_role_id` (FK). The initial data includes a 'SuperUser' and two regular users.

```
6
7 INSERT INTO user_role (user_role_id, user_role_type)
8 VALUES (1, 'SuperUser');
9
10 INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id)
11 VALUES ('test1@example.com', 'password1', 'img1.jpg', 'img2.jpg', 10.00, '1990-01-01', 1);
12
13 INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id)
14 VALUES ('test2@example.com', 'password2', 'img1.jpg', 'img2.jpg', 15.00, '1992-02-02', 999);
15
16 SELECT * FROM user_role ORDER BY user_role_id;
```

The **Result Grid** shows the following data:

user_role_id	user_role_type
1	Admin
2	User

The **Output** window shows the execution results:

#	Time	Action	Message	Duration / Fetch
1	21:36:54	Apply changes to user_role	Changes applied	
2	21:42:45	Apply changes to web_user	Error 1060: Duplicate column name 'user_image' SQL Statement: CREATE TABLE 'T\$24_3308_h455961' 'web_user' ( 'web_user_id' INT(11) NOT NULL...	
3	21:46:26	Apply changes to web_user	Changes applied	
4	21:53:37	Apply changes to web_user	Changes applied	
5	22:01:00	INSERT INTO user_role (user_role_id, user_role_type) VALUES (1, 'Admin'). (2, 'User')	2 row(s) affected Records: 2 Duplicates: 0 Warnings: 0	0.016 sec
6	22:01:34	SELECT * FROM user_role LIMIT 0, 1000	2 row(s) returned	0.015 sec / 0.000 sec
7	22:03:14	INSERT INTO user_role (user_role_id, user_role_type) VALUES (1, 'SuperUser')	Error Code: 1062: Duplicate entry '1' for key 'PRIMARY'	0.016 sec

## Web\_user table data

The screenshot shows a SQL Developer window with a query editor containing SQL statements to create the `web_user` table and insert initial data. The `web_user` table has columns `web_user_id` (PK), `user_email`, `user_password`, `user_image`, `user_image2`, `membership_fee`, `birthday`, and `user_role_id` (FK). The initial data includes three users.

```
23
24 INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id)
25 VALUES ('mike.brown@example.com', 'mikepassword', 'img1.jpg', 'img2.jpg', 50.00, '1980-10-10', 1);
26
27 INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id)
28 VALUES ('alex.taylor@example.com', 'aleypass', 'img1.jpg', 'img2.jpg', 45.00, '1975-08-23', 2);
29
30 INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id)
31 VALUES ('susan.lee@example.com', 'susanpass', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);
32
33 SELECT * FROM web_user ORDER BY web_user_id;
```

The **Result Grid** shows the following data:

web_user_id	user_email	user_password	user_image	user_image2	membership_fee	birthday	user_role_id
1	test1@example.com	password1	img1.jpg	img2.jpg	10.00	1990-01-01	1
3	john.doe@example.com	strongpassword	profile.jpg	avatar.jpg	20.00	1985-05-15	1
4	jane.smith@example.com	janeapassword	img1.jpg	img2.jpg	30.00	1990-02-20	2
5	mike.brown@example.com	mikepassword	img1.jpg	img2.jpg	50.00	1980-10-10	1
6	alex.taylor@example.com	aleypass	img1.jpg	img2.jpg	45.00	1975-08-23	2
7	susan.lee@example.com	susanpass	pic1.jpg	pic2.jpg	60.00	1995-11-03	1

The **Output** window shows the execution results:

#	Time	Action	Message	Duration / Fetch
7	22:03:14	INSERT INTO user_role (user_role_id, user_role_type) VALUES (1, 'SuperUser')	Error Code: 1062: Duplicate entry '1' for key 'PRIMARY'	0.016 sec
8	22:04:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (test1@example.co...	1 row(s) affected	0.015 sec
9	22:04:59	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (test2@example.co...	Error Code: 1452: Cannot add or update a child row: a foreign key constraint fails (T\$24_3308_h455961' 'web_user', CONSTRAINT 'fk_web_user_role...	0.032 sec
10	22:06:43	SELECT * FROM user_role LIMIT 0, 1000	2 row(s) returned	0.015 sec / 0.000 sec
11	22:12:40	SELECT * FROM user_role ORDER BY user_role_id LIMIT 0, 1000	2 row(s) returned	0.032 sec / 0.000 sec
12	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (john.doe@exampl...	1 row(s) affected	0.031 sec
13	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (jane.smith@example.com), 'jane...	1 row(s) affected	0.015 sec
14	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (mike.brown@exa...	1 row(s) affected	0.032 sec
15	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (alex.taylor@example.com), 'alexp...	1 row(s) affected	0.015 sec
16	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (susan.lee@exampl...	1 row(s) affected	0.032 sec
17	22:22:03	SELECT * FROM web_user ORDER BY web_user_id LIMIT 0, 1000	6 row(s) returned	0.031 sec / 0.000 sec

## Deleting a referenced user\_role record error

The screenshot shows a SQL Developer window with a query editor containing SQL statements to delete a record from the `user_role` table. The `user_role` table has columns `user_role_id` (PK), `user_email`, `user_password`, `user_image`, `user_image2`, `membership_fee`, `birthday`, and `user_role_id` (FK). The initial data includes a 'SuperUser' and two regular users.

```
8
9 INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (test1@example.co...
10 VALUES (test2@example.com, 'password2', 'img1.jpg', 'img2.jpg', 15.00, '1992-02-02', 999);
11
12 SELECT * FROM user_role ORDER BY user_role_id;
```

The **Result Grid** shows the following data:

web_user_id	user_email	user_password	user_image	user_image2	membership_fee	birthday	user_role_id
1	test1@example.com	password1	img1.jpg	img2.jpg	10.00	1990-01-01	1
3	john.doe@example.com	strongpassword	profile.jpg	avatar.jpg	20.00	1985-05-15	1
4	jane.smith@example.com	janeapassword	img1.jpg	img2.jpg	30.00	1990-02-20	2
5	mike.brown@example.com	mikepassword	img1.jpg	img2.jpg	50.00	1980-10-10	1
6	alex.taylor@example.com	aleypass	img1.jpg	img2.jpg	45.00	1975-08-23	2
7	susan.lee@example.com	susanpass	pic1.jpg	pic2.jpg	60.00	1995-11-03	1

The **Output** window shows the execution results:

#	Time	Action	Message	Duration / Fetch
8	22:04:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (test1@example.co...	1 row(s) affected	0.015 sec
9	22:04:59	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (test2@example.co...	Error Code: 1452: Cannot add or update a child row: a foreign key constraint fails (T\$24_3308_h455961' 'web_user', CONSTRAINT 'fk_web_user_role...	0.032 sec
10	22:06:43	SELECT * FROM user_role LIMIT 0, 1000	2 row(s) returned	0.015 sec / 0.000 sec
11	22:12:40	SELECT * FROM user_role ORDER BY user_role_id LIMIT 0, 1000	2 row(s) returned	0.032 sec / 0.000 sec
12	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (john.doe@exampl...	1 row(s) affected	0.031 sec
13	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (jane.smith@example.com), 'jane...	1 row(s) affected	0.015 sec
14	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (mike.brown@exa...	1 row(s) affected	0.032 sec
15	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (alex.taylor@example.com), 'alexp...	1 row(s) affected	0.015 sec
16	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (susan.lee@exampl...	1 row(s) affected	0.032 sec
17	22:22:03	SELECT * FROM web_user ORDER BY web_user_id LIMIT 0, 1000	6 row(s) returned	0.031 sec / 0.000 sec
18	22:25:34	DELETE FROM user_role WHERE user_role_id = 1	Error Code: 1451: Cannot delete or update a parent row: a foreign key constraint fails (T\$24_3308_h455961' 'web_user', CONSTRAINT 'fk_web_user_...	0.015 sec

## Select statement of web\_user joined with user\_role

Query 1

```
VALUES ('susan.lee@example.com', 'susanpass', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);
SELECT * FROM web_user ORDER BY web_user_id;
DELETE FROM user_role WHERE user_role_id = 1;
SELECT ur.user_role_type, wu.user_email
FROM web_user wu
JOIN user_role ur ON wu.user_role_id = ur.user_role_id
ORDER BY ur.user_role_type, wu.user_email;
```

Result Grid

user_role_type	user_email
Admin	john.doe@example.com
Admin	mike.brown@example.com
Admin	susan.lee@example.com
Admin	test1@example.com
User	alex.taylor@example.com
User	jane.smith@example.com

Result 5

#	Time	Action	Message	Duration / Fetch
9	22:04:59	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (test2@example.com, 'test2pass', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);	Error Code: 1452: Cannot add or update a child row: a foreign key constraint fails (fa24_3308_tuj55961 'web_user', CONSTRAINT fk_web_user_role ...)	0.032 sec
10	22:06:43	SELECT * FROM user_role LIMIT 0, 1000	2 row(s) returned	0.015 sec / 0.000 sec
11	22:12:40	SELECT * FROM user_role ORDER BY user_role_id LIMIT 0, 1000	2 row(s) returned	0.032 sec / 0.000 sec
12	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (john.doe@example.com, 'johnpass', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);	1 row(s) affected	0.031 sec
13	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (jane.smith@example.com, 'janepass', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);	1 row(s) affected	0.015 sec
14	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (mike.brown@example.com, 'mikepass', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);	1 row(s) affected	0.032 sec
15	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (alex.taylor@example.com, 'alexp', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);	1 row(s) affected	0.015 sec
16	22:21:44	INSERT INTO web_user (user_email, user_password, user_image, user_image2, membership_fee, birthday, user_role_id) VALUES (susan.lee@example.com, 'susanpass', 'pic1.jpg', 'pic2.jpg', 60.00, '1995-11-03', 1);	1 row(s) affected	0.032 sec
17	22:22:03	SELECT * FROM web_user ORDER BY web_user_id LIMIT 0, 1000	6 row(s) returned	0.031 sec / 0.000 sec
18	22:25:34	DELETE FROM user_role WHERE user_role_id = 1	Error Code: 1451: Cannot delete or update a parent row: a foreign key constraint fails (fa24_3308_tuj55961 'web_user', CONSTRAINT fk_web_user_role ...)	0.015 sec
19	22:27:53	SELECT ur.user_role_type, wu.user_email FROM web_user wu JOIN user_role ur ON wu.user_role_id = ur.user_role_id ORDER BY ur.user_role_type, wu.user_email	6 row(s) returned	0.016 sec / 0.000 sec

## “other “ table design (jobs)

Table Name:  Schema: **fa24\_3308\_tuj55961**

Charset/Collation:   Engine:

Comments:

Column Name	Datatype	PK	NN	UQ	B	UN	ZF	AI	G	Default/Expression
jobs_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"/>	
service_type	VARCHAR(100)	<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"/>	
job_date	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
total_cost	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
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"/>	
image_url	VARCHAR(200)	<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

Column Name:  Data Type:

Charset/Collation:   Default:

Comments:

Storage: ☐ Virtual ☐ Stored

☐ Primary Key ☐ Not Null ☐ Unique

☐ Binary ☐ Unsigned ☐ Zero Fill

☐ Auto Increment ☐ Generated

Columns | Indexes | Foreign Keys | Triggers | Partitioning | Options

Foreign key tab of “other” table design (jobs)

Table Name: jobs

Schema: fa24\_3308\_tuj55961

Charset/Collation: Default Charset

Default Collation

Engine: InnoDB

Comments:

Foreign Key Name	Referenced Table	Column	Referenced Column
fk_jobs_web_user	fa24_3308_tuj55961.web_user	<input type="checkbox"/> jobs_id	
		<input type="checkbox"/> service_type	
		<input type="checkbox"/> job_day	
		<input type="checkbox"/> total_cost	
		<input checked="" type="checkbox"/> web_user_id	web_user_id
		<input type="checkbox"/> image_url	

Foreign Key Options

On Update: NO ACTION

On Delete: NO ACTION

☐ Skip in SQL generation

Foreign Key Comment

Columns

Indexes

ForeignKeys

Triggers

Partitioning

Options

Apply

Revert

Invalid foreign key error (web\_user\_id)

77 • INSERT INTO jobs (service\_type, job\_day, total\_cost, web\_user\_id, image\_url)

78 VALUES ('Epoxy Coating', '2024-09-10', 1500.00, 999, 'http://example.com/image12.jpg');

79

80

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84

85

Output

Action Output

#	Time	Action	Message	Duration / Fetch
33	16:59:21	Apply changes to jobs	Changes applied	
34	16:59:33	SELECT * FROM jobs LIMIT 0.1000	8 row(s) returned	0.031 sec / 0.000 sec
35	17:02:51	INSERT INTO jobs (service_type, job_day, total_cost, web_user_id, image_url) VALUES ('Epoxy Coating', '2024-09-10', 1500.00, 999, 'http://example.co...	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails (fa24_3308_tuj55961 `jobs`, CONSTRAINT fk_jobs_web_user` FOREIGN...	0.031 sec

Trying to delete a referenced web\_user record

80 • SELECT web\_user\_id FROM jobs;

81

82 • DELETE FROM web\_user WHERE web\_user\_id = 1;

83

84

Output

Action Output

#	Time	Action	Message	Duration / Fetch
36	17:05:56	SELECT web_user_id FROM jobs LIMIT 0.1000	8 row(s) returned	0.015 sec / 0.000 sec
37	17:06:36	DELETE FROM web_user WHERE web_user_id = 1	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails (fa24_3308_tuj55961 `jobs`, CONSTRAINT fk_jobs_web_user` FO...	0.015 sec

## Running SQL statements

84 • `SELECT * FROM jobs`  
85 `ORDER BY jobs_id`

Result Grid

jobs_id	service_type	job_day	total_cost	web_user_id	image_url
1	Epoxy Coating	2024-01-15	1500.00	1	http://example.com/image1.jpg
3	Concrete Polishing	2024-02-10	3000.00	3	http://example.com/image4.jpg
5	Epoxy Coating	2024-03-12	4500.00	3	http://example.com/image5.jpg
6	Staining	2024-03-12	1000.00	4	http://example.com/image6.jpg
7	Power Washing	2024-04-05	1000.00	5	http://example.com/image7.jpg
8	Line Marking	2024-05-25	2200.00	1	http://example.com/image8.jpg
10	Seal Coating	2024-06-18	3500.00	5	http://example.com/image9.jpg
11	Pavement Resurfacing	2024-07-30	6000.00	3	http://example.com/image10.jpg

obs 15 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
34	16:59:33	<code>SELECT * FROM jobs LIMIT 0, 1000</code>	8 row(s) returned	0.031 sec / 0.000 sec
35	17:02:51	<code>INSERT INTO jobs (service_type, job_day, total_cost, web_user_id, image_url) VALUES ('Epoxy Coating', '2024-09-10', 1500.00, 999, 'http://example.com/image11.jpg')</code>	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails ('fa24_3308_b455961' 'jobs', CONSTRAINT 'fk_jobs_web_user' FOREIGN KEY (web_user_id) REFERENCES web_user (web_user_id))	0.031 sec
36	17:05:56	<code>SELECT web_user_id FROM jobs LIMIT 0, 1000</code>	8 row(s) returned	0.015 sec / 0.000 sec
37	17:06:36	<code>DELETE FROM web_user WHERE web_user_id = 1</code>	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails ('fa24_3308_b455961' 'jobs', CONSTRAINT 'fk_jobs_web_user' FOREIGN KEY (web_user_id) REFERENCES web_user (web_user_id))	0.015 sec
38	17:09:05	<code>SELECT * FROM jobs ORDER BY jobs_id LIMIT 0, 1000</code>	Error Code: 1054. Unknown column 'jobs_id' in 'order clause'	0.047 sec
39	17:10:54	<code>SHOW COLUMNS FROM jobs</code>	6 row(s) returned	0.015 sec / 0.000 sec
40	17:11:17	<code>SELECT * FROM jobs ORDER BY jobs_id LIMIT 0, 1000</code>	8 row(s) returned	0.015 sec / 0.000 sec

a)

87 • `SELECT j.image_url, wu.user_email`  
88 `FROM jobs j`  
89 `JOIN web_user wu ON j.web_user_id = wu.web_user_id`  
90 `ORDER BY j.image_url, wu.user_email`

Result Grid

image_url	user_email
http://example.com/image1.jpg	test1@example.com
http://example.com/image10.jpg	john.doe@example.com
http://example.com/image4.jpg	john.doe@example.com
http://example.com/image5.jpg	john.doe@example.com
http://example.com/image6.jpg	jane.smith@example.com
http://example.com/image7.jpg	mike.brown@example.com
http://example.com/image8.jpg	test1@example.com
http://example.com/image9.jpg	mike.brown@example.com

Result 16 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
35	17:02:51	<code>INSERT INTO jobs (service_type, job_day, total_cost, web_user_id, image_url) VALUES ('Epoxy Coating', '2024-09-10', 1500.00, 999, 'http://example.com/image11.jpg')</code>	Error Code: 1452. Cannot add or update a child row: a foreign key constraint fails ('fa24_3308_b455961' 'jobs', CONSTRAINT 'fk_jobs_web_user' FOREIGN KEY (web_user_id) REFERENCES web_user (web_user_id))	0.031 sec
36	17:05:56	<code>SELECT web_user_id FROM jobs LIMIT 0, 1000</code>	8 row(s) returned	0.015 sec / 0.000 sec
37	17:06:36	<code>DELETE FROM web_user WHERE web_user_id = 1</code>	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails ('fa24_3308_b455961' 'jobs', CONSTRAINT 'fk_jobs_web_user' FOREIGN KEY (web_user_id) REFERENCES web_user (web_user_id))	0.015 sec
38	17:09:05	<code>SELECT * FROM jobs ORDER BY jobs_id LIMIT 0, 1000</code>	Error Code: 1054. Unknown column 'jobs_id' in 'order clause'	0.047 sec
39	17:10:54	<code>SHOW COLUMNS FROM jobs</code>	6 row(s) returned	0.015 sec / 0.000 sec
40	17:11:17	<code>SELECT * FROM jobs ORDER BY jobs_id LIMIT 0, 1000</code>	8 row(s) returned	0.016 sec / 0.000 sec
41	17:15:50	<code>SELECT j.image_url, wu.user_email FROM jobs j JOIN web_user wu ON j.web_user_id = wu.web_user_id ORDER BY j.image_url, wu.user_email LIMIT 0, 1000</code>	8 row(s) returned	0.032 sec / 0.000 sec

b)

92 • `SELECT j.image_url, wu.user_email`  
93 `FROM jobs j`  
94 `JOIN web_user wu ON j.web_user_id = wu.web_user_id`  
95 `WHERE j.service_type = 'Epoxy Coating'`  
96 `ORDER BY j.image_url, wu.user_email`

Result Grid

image_url	user_email
http://example.com/image1.jpg	test1@example.com
http://example.com/image5.jpg	john.doe@example.com

Result 17 x

Output

Action Output

#	Time	Action	Message	Duration / Fetch
36	17:05:56	<code>SELECT web_user_id FROM jobs LIMIT 0, 1000</code>	8 row(s) returned	0.015 sec / 0.000 sec
37	17:06:36	<code>DELETE FROM web_user WHERE web_user_id = 1</code>	Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails ('fa24_3308_b455961' 'jobs', CONSTRAINT 'fk_jobs_web_user' FOREIGN KEY (web_user_id) REFERENCES web_user (web_user_id))	0.015 sec
38	17:09:05	<code>SELECT * FROM jobs ORDER BY jobs_id LIMIT 0, 1000</code>	Error Code: 1054. Unknown column 'jobs_id' in 'order clause'	0.047 sec
39	17:10:54	<code>SHOW COLUMNS FROM jobs</code>	6 row(s) returned	0.015 sec / 0.000 sec
40	17:11:17	<code>SELECT * FROM jobs ORDER BY jobs_id LIMIT 0, 1000</code>	8 row(s) returned	0.016 sec / 0.000 sec
41	17:15:50	<code>SELECT j.image_url, wu.user_email FROM jobs j JOIN web_user wu ON j.web_user_id = wu.web_user_id ORDER BY j.image_url, wu.user_email LIMIT 0, 1000</code>	8 row(s) returned	0.032 sec / 0.000 sec
42	17:22:14	<code>SELECT j.image_url, wu.user_email FROM jobs j JOIN web_user wu ON j.web_user_id = wu.web_user_id WHERE j.service_type = 'Epoxy Coating' ORDER BY j.image_url, wu.user_email LIMIT 0, 1000</code>	2 row(s) returned	0.031 sec / 0.000 sec

c)