

1. STUDENT NAME 2. URL to STUDENT WEB SITE 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. f) "OTHER": all rows, all columns, sorted by the id of your "other" table. g) "OTHER" JOINED WITH WEB_USER all rows, certain columns, sorted. h) "OTHER" JOINED WITH WEB_USER some rows, certain columns, sorted.

Product Table

- product_id int(11) (PRIMARY KEY)
- product_name varchar(45)
- img varchar(300)
- price decimal(8,2)
- stock int (11)
- web_user_id (11) (FOREIGN KEY)

```
1 CREATE TABLE `SP22_3308_tup74469`.`product` (  
2   `product_id` INT(11) NOT NULL AUTO_INCREMENT,  
3   `product_name` VARCHAR(45) NOT NULL,  
4   `img` VARCHAR(300) NULL,  
5   `price` DECIMAL(8,2) NULL,  
6   `stock` INT(11) NULL,  
7   `web_user_id` INT(11) NOT NULL,  
8   PRIMARY KEY (`product_id`),  
9   UNIQUE INDEX `product_name_UNIQUE` (`product_name` ASC));  
10
```

a) add foreign key from 'product' table to web_user

```
Query 1 x user_role web_user user_role web_user product - Table product  
1 • alter table product add foreign key (web_user_id) references web_user (web_user_id);
```

b) add data into 'product' table

```
Query 1 user_role web_user user_role product - Table product product x web_user  
1 • SELECT * FROM SP22_3308_tup74469.product;
```

product_id	product_name	img	price	stock	web_user_id
6	rice	http...	50.00	150	1
7	brownrice	NULL	55.00	100	1
8	stickrice	NULL	55.00	NULL	1
9	redbean	NULL	0.00	NULL	2
10	blackbean	NULL	40.00	NULL	3
NULL	NULL	NULL	NULL	NULL	NULL

>> try to add 'product' with an invalid web_user_id 8 , then FK violation error

```
INSERT INTO `SP22_3308_tup74469`.`product` (`product_name`, `price`, `web_user_id`) VALUES ('pepper', '30', '8');
```

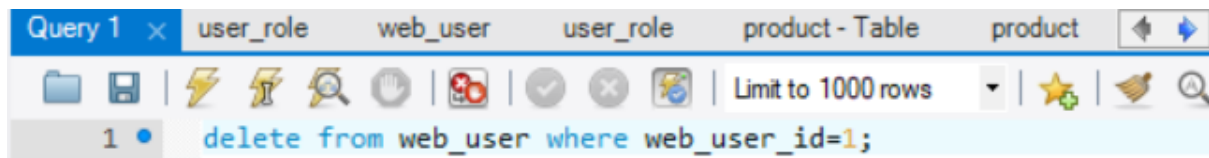
Error: There was an error while applying the SQL script to the database.

Message Log

```
Executing:
INSERT INTO `SP22_3308_tup74469`.`product` (`product_name`, `price`, `web_user_id`) VALUES ('pepper', '30', '8');

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_tup74469`.`product`, CONSTRAINT `product_ibfk_2` FOREIGN
KEY (`web_user_id`) REFERENCES `web_user` (`web_user_id`))
SQL Statement:
INSERT INTO `SP22_3308_tup74469`.`product` (`product_name`, `price`, `web_user_id`) VALUES ('pepper', '30', '8')
```

>> try to delete referenced web_user record, then error



17 13:22:09 delete from web_user where web_user_id=1

Error Code: 1451. Cannot delete or update a parent row: a foreign key constraint fails (`SP22_3308_tup74469`.`web_user`, CONSTRAINT `web_user_ibfk_1` FOREIGN KEY (`product_id`) REFERENCES `product` (`product_id`))

c) Run SQL select statement

1) select * from product (sort by product_id)

The screenshot shows a SQL query editor with a toolbar at the top. The query text is: `select * from product order by product_id;`

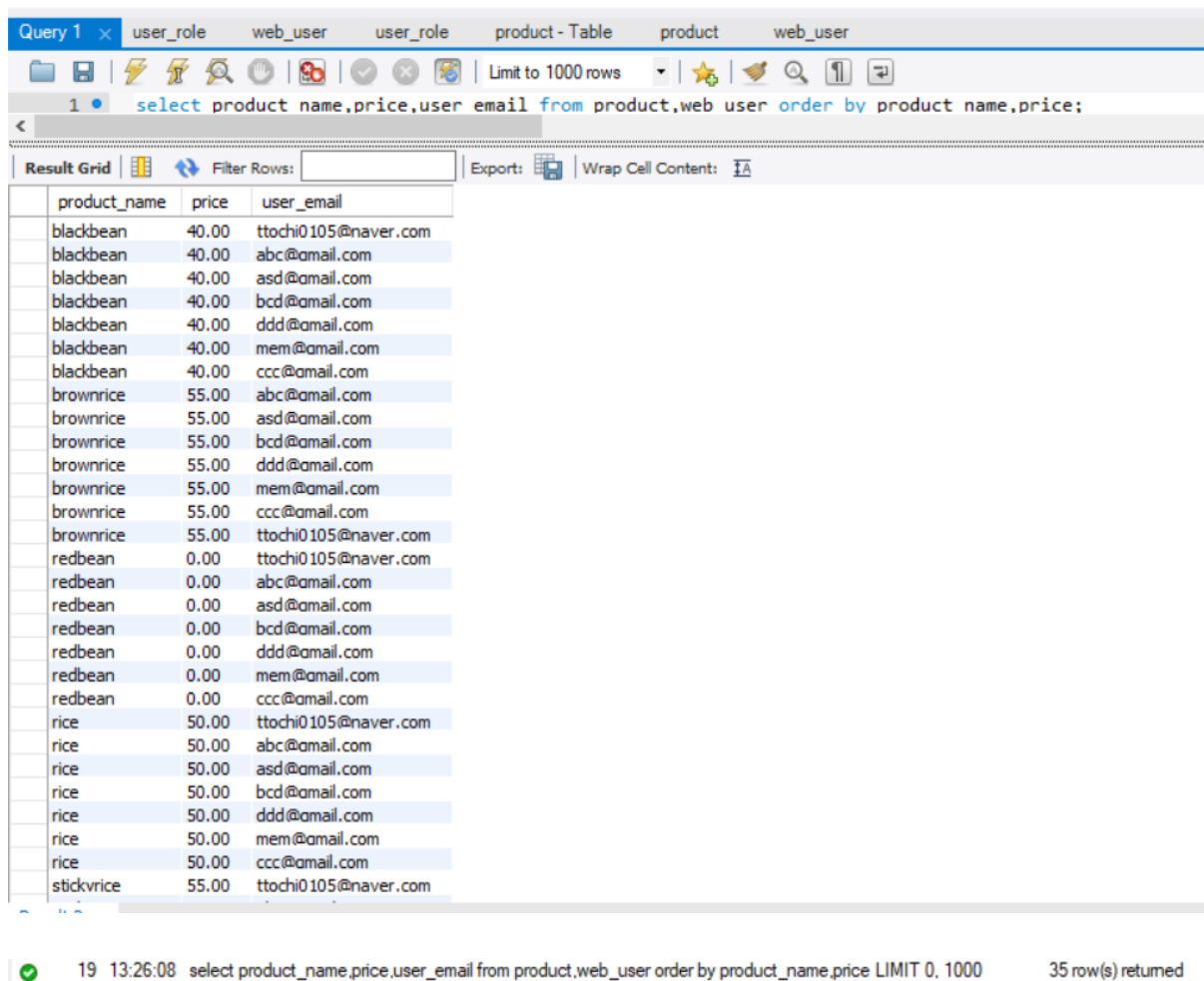
Below the query editor is the 'Result Grid' showing the results of the query. The grid has 7 columns: product_id, product_name, img, price, stock, web_user_id. The results are as follows:

product_id	product_name	img	price	stock	web_user_id
6	rice	https://cdn.areatlifepublishing.net/wp-content/...	50.00	150	1
7	brownrice	NULL	55.00	100	1
8	stickrice	NULL	55.00	NULL	1
9	redbean	NULL	0.00	NULL	2
10	blackbean	NULL	40.00	NULL	3
NULL	NULL	NULL	NULL	NULL	NULL

18 13:23:11 select * from product order by product_id LIMIT 0, 1000

5 row(s) returned

2) select product_name, price, user_email from product, web_user order by product_name, price;



Query 1 x user_role web_user user_role product - Table product web_user

Limit to 1000 rows

1 • select product_name, price, user_email from product, web_user order by product_name, price;

Result Grid Filter Rows: Export: Wrap Cell Content:

product_name	price	user_email
blackbean	40.00	ttochi0105@naver.com
blackbean	40.00	abc@gmail.com
blackbean	40.00	asd@gmail.com
blackbean	40.00	bcd@gmail.com
blackbean	40.00	ddd@gmail.com
blackbean	40.00	mem@gmail.com
blackbean	40.00	ccc@gmail.com
brownrice	55.00	abc@gmail.com
brownrice	55.00	asd@gmail.com
brownrice	55.00	bcd@gmail.com
brownrice	55.00	ddd@gmail.com
brownrice	55.00	mem@gmail.com
brownrice	55.00	ccc@gmail.com
brownrice	55.00	ttochi0105@naver.com
redbean	0.00	ttochi0105@naver.com
redbean	0.00	abc@gmail.com
redbean	0.00	asd@gmail.com
redbean	0.00	bcd@gmail.com
redbean	0.00	ddd@gmail.com
redbean	0.00	mem@gmail.com
redbean	0.00	ccc@gmail.com
rice	50.00	ttochi0105@naver.com
rice	50.00	abc@gmail.com
rice	50.00	asd@gmail.com
rice	50.00	bcd@gmail.com
rice	50.00	ddd@gmail.com
rice	50.00	mem@gmail.com
rice	50.00	ccc@gmail.com
stickrice	55.00	ttochi0105@naver.com

19 13:26:08 select product_name, price, user_email from product, web_user order by product_name, price LIMIT 0, 1000 35 row(s) returned

3) select product_name, price, user_email from product, web_user where product.web_user_id=1;

Query 1 x user_role web_user user_role product - Table product web_user

Limit to 1000 rows

```
1 • select product_name,price,user_email from product,web_user where product.web_user_id=1;
```

Result Grid Filter Rows: Export: Wrap Cell Content:

product_name	price	user_email
rice	50.00	tttochi0105@naver.com
brownrice	55.00	tttochi0105@naver.com
stickvrice	55.00	tttochi0105@naver.com
rice	50.00	abc@gmail.com
brownrice	55.00	abc@gmail.com
stickvrice	55.00	abc@gmail.com
rice	50.00	asd@gmail.com
brownrice	55.00	asd@gmail.com
stickvrice	55.00	asd@gmail.com
rice	50.00	bcd@gmail.com
brownrice	55.00	bcd@gmail.com
stickvrice	55.00	bcd@gmail.com
rice	50.00	ddd@gmail.com
brownrice	55.00	ddd@gmail.com
stickvrice	55.00	ddd@gmail.com
rice	50.00	mem@gmail.com
brownrice	55.00	mem@gmail.com
stickvrice	55.00	mem@gmail.com
rice	50.00	ccc@gmail.com

Result 3

✓ 21 13:31:38 select product_name,price,user_email from product,web_user where product.web_user_id=1 LIMIT 0, 1000 21 row(s) returned