# **CPSC 304 Project Cover Page**

Milestone #: 4

Date: November 25, 2022

Group Number: 25

Name	Student Number	CS Alias (Userid)	Preferred E-mail Address
Heeseop An	78513967	t3r1y	heeseop.an@gmail.com
Jeremy Hay	31764715	l7a3b	hayjer000@gmail.com
Dabin Im	20780946	b7c7l	ldb1216@gmail.com

By typing our names and student numbers in the above table, we certify that the work in the attached assignment was performed solely by those whose names and student IDs are included above. (In the case of Project Milestone 0, the main purpose of this page is for you to let us know your e-mail address, and then let us assign you to a TA for your project supervisor.)

In addition, we indicate that we are fully aware of the rules and consequences of plagiarism, as set forth by the Department of Computer Science and the University of British Columbia.

# **SQL Script**

https://github.students.cs.ubc.ca/CPSC304-2022W-T1/project\_b7c7l\_l7a3b\_t3r1y/blob/main/data/init.sql

# **Project description**

WeCanCook is a food discovery and meal kit delivery website. On the website, you can view lifestyle/food posts from select bloggers, as well as meal posts which include instructions and ingredients for those who do not wish to buy our meal kit. The meal kit also contains instructions on how to make meal with the provided ingredients. On the meal post pages, you can add meal kit to shopping cart. On any post, you can also leave comments including a rating, which will be visible to all users. To help with finding the meal posts you're looking for, there are a variety of filtering options from highest rated to searching for ingredients.

# Schema changes

- Removed the Recipes table and moved its attribute instruction to the MealPosts table. This is because we
  decided to have one-to-one relationship between MealPosts and Recipes but realized Recipe table didn't
  really have any other purpose than hosting the instructions, which would then be displayed on the
  MealPosts.
- 2. Added price and instruction attributes to MealKit table since it makes more sense that the product has price and instruction on how to cook with ingredients in the meal kit.
- 3. Added password attributes to Users since it is essential to have password for user to login.
- 4. Removed type attribute from Users and created separate table userType since Users was normalized into two table.
- 5. Removed address attribute from Orders and created separate table orderAddress since Orders was normalized into two table.
- 6. Added rating attribute in Comments table to perform aggregation with having query.

#### Schema and table contents after initialization

#### Schema:

```
Post (postId INT PRIMARY KEY, title CHAR(200), content CHAR(2000));

MealPosts (postId INT PRIMARY KEY, dietType CHAR(100), instruction CHAR(2000), rate INT);

Ingredient (ingName CHAR(100) PRIMARY KEY, type CHAR(100));

List (postId INT, ingName CHAR(100), PRIMARY KEY (postId, ingName), FOREIGN KEY (postId) REFERENCES MealPosts(postId) ON DELETE CASCADE, FOREIGN KEY (ingName) REFERENCES Ingredient(ingName) ON DELETE CASCADE);

Blog (postId INT PRIMARY KEY, category CHAR(100), FOREIGN KEY (postId) REFERENCES Post(postId) ON DELETE CASCADE);

GroceryStore (storeId INT PRIMARY KEY, name CHAR(100), address CHAR(100));

Inform (postId INT, storeId INT, PRIMARY KEY (postId, storeId), FOREIGN KEY (postId) REFERENCES MealPosts ON DELETE CASCADE, FOREIGN KEY (storeId) REFERENCES GroceryStore ON DELETE CASCADE);
```

MealKit (SKU INT PRIMARY KEY, name CHAR(100), price INT, instruction CHAR(2000));

Users (userId INT PRIMARY KEY, name CHAR(100), email CHAR(100), password CHAR(100));

UserType (email CHAR(100) PRIMARY KEY, type CHAR(100));

Orders (orderId INT PRIMARY KEY, trackingId CHAR(100) UNIQUE, userId INT, year CHAR(4), month CHAR(2), day CHAR(2), FOREIGN KEY (userId) REFERENCES Users ON DELETE CASCADE);

OrderAddress (trackingId CHAR(100) PRIMARY KEY, address CHAR(100));

Contain (SKU INT, orderId INT, PRIMARY KEY (SKU, orderId), FOREIGN KEY (SKU) REFERENCES MealKit ON DELETE CASCADE, FOREIGN KEY (orderId) REFERENCES Orders ON DELETE CASCADE);

Comments (postId INT, commentId INT, rating INT, content CHAR(2000), userId INT, PRIMARY KEY (postId, commentId), FOREIGN KEY (userId) REFERENCES Users);

Explains (SKU INT, postId INT, PRIMARY KEY (SKU, postId), FOREIGN KEY (SKU) REFERENCES MealKit ON DELETE CASCADE, FOREIGN KEY (postId) REFERENCES MealPosts ON DELETE CASCADE);

#### Table after running the script:

DOCULD WINE

Posts:

POSTID TITLE	CONTENT

COMMENIE

- 1 Tteokbokki is one of the most popular Korean street foods in Korea. Among other things, today's recipe is made with Korean rice cakes, Korean fish cakes, Korean soup stock / dashi stock and gochujang (Korean
- 2 Jjajang Tteokbokki Jjajang tteokbokki known as Korean Black Bean Tteokbokki, is a delicious 15 mins recipe made with chewy Korean rice cakes in a black bean sauce!
- 3 Curry Tteokbokki Curry Tteokbokki Korean Kare- a hearty, rich and comforting dish made with rice cakes, sausages, potatoes, carrots, onions, and mushrooms; all simmered in a thick and flavorsome curry sauce.
- 4 Carbonara Tteokbokki Korean Cream Carbonara Tteokbokki is a fusion rice cake dish, made with smokey bacon, lashings of cream and a generous sprinkling of black pepper.
- 5 Gungjung Tteokbokki teokbokki Gungjung means 'royal

court' in Korean. Unlike today's red spicy version, this traditional version is mildly flavored with a soy sauce based sauce.

6 Fried Chicken Fried chicken, also known as Southern fried chicken, is a dish consisting of chicken pieces that have been coated with seasoned flour or batter and pan-fried, deep fried, pressure fried, or air fried.

7 Korean Fried Chicken Korean fried chicken, usually called chikin in Korea, refers to a variety of fried chicken dishes created in South Korea, including the basic huraideu-chicken and spicy yangnyeom chicken.

8 Buffalo Wing in American cuisine is an unbreaded chicken wing section that is generally deep-fried and then coated or dipped in a sauce consisting of a vinegar-based cayenne pepper hot sauce and melted butte

9 Shoyu Ramen 'Shoyu' means soy sauce in Japanese. Shoyu ramen simply refers to ramen served with a soy sauce-based broth that is usually in clear, brown color.

10 Tonkotsu Ramen Tonkotsu ramen is the king of Japenese soups for a reason. Deeply flavourful broth is in perfect balance with the pork and those wonderful ramen noodles.

11 Dongdaemun Yupdduk Honestly, Yupdduk is just unbelievable amazing. I get takeout nearly every day, and the sausage just hits differently. Always grab additional sausage with your order; you won't be sorry. I don't usually purcha

12 Sinjeon Tteokbokki Delicious Korean street food! Ordered takeout at the restaurant and the staff were super friendly. Had to wait a little longer than usual and the staff were very apologetic for it and gave us an extra fried se

13 bbq Chicken Absolutely amazing authentic korean fried chicken place! What more can you ask for? You got hot and crispy, saucy, finger-lickin good chicken, cold beer, and sumptuous cheese balls and tteobokki...wow!! App

14 Kokoro We got their chicken from karaage king again and their takoyaki as well. The chicken karaage were ordered with the tartar mayo sauce and although the sauce was delicious, I found the chicken a little bit too s

15 Kinton UBC's first ramen restaurant! A nice spot to enjoy a nice hot bowl of ramen to warm up after trekking across campus to class or commuting to school. The ramen is decent and pretty standard. Nothing about it st

MealPosts:

POSTID DIETTYPE

INSTRUCTION

\_\_\_\_\_\_ \_\_\_\_

1 pescatarians Unless your rice cakes are soft already, soak them in warm water for 10 mins. Boil the soup stock in a shallow pot over medium high heat and dissolve the tteokbokki sauce by stirring it with a spatula. Once the seasoned stock is

- 2 pescatarians In a small bowl, mix together your water and cornstarch. In a medium size pot set over low heat, add your avocado oil. You want to ensure your oil is warmed. Then add in your roasted black bean paste. Fry it in the oil for 1 minu
- 3 flextarian Cut 4 sausages into bite-sized pieces using scissors. Fry off in a little oil until browned. Add half thinly sliced onion and saut?? until soft. Now add 6 sliced mushrooms and stir. A few minutes later, add 4 minced garlic cloves
- 4 flextarian Slice garlic, onion, bacon and the broccoli to bite-sized pieces. Rice cake is reopened when a hard boil in boiling water for 30 seconds. It's okay if omitted. Wearing the olive oil in a preheated pan. Put the garlic, onions, broc
- 5 flextarian Combine the meat with the marinade. Set aside while other ingredients are being prepared. In a heated pan (on medium-high heat), add some cooking oil and the onion. Stir lightly until they are wilted. Add the meat and cook briefl
- 6 flextarian In a large shallow dish, combine 3 cups flour, garlic salt, paprika, 3 teaspoons pepper and poultry seasoning. In another shallow dish, beat eggs and 2 cups water; add salt and the remaining 1 cups flour and 1 teaspoon pepper. Di
- 7 flextarian Wash chicken wings, and drain thoroughly. Mix with the salt, pepper, and ginger. Let it sit in the fridge for 2 hours or longer. Combine all the sauce ingredients of your choice and stir well. Boil over medium heat until it thick
- 8 flextarian Preheat oven to 400 F and place a wire rack over a baking sheet. In a large bowl, toss chicken wings with oil and season with garlic powder, salt, and pepper. Transfer to prepared baking sheet. Bake until chicken is golden and sk
- 9 flextarian Ingredients for shoyu ramen recipe gathered. Heat sesame oil in a deep pan over medium heat. Saut?? the chopped ginger and garlic in the pan for about a minute. Garlic and ginger frying in oil in a saucepan. Lower the heat and ad
- 10 flextarian Make the pork broth. Transfer the trotters to a large stock pot and cover with cold water. Bring to a boil over high heat, then remove from the heat and drain in a colander, discarding the liquid. Using chopsticks, clean the bone

Ingredient:

INGNAME TYPE

\_\_\_\_\_\_ \_\_\_\_\_

Gochujang Condiment

Sugar Sugar

Soy Sauce Sauce

Gochugaru Spice

Sesame Seed Nut

Sesame Oil Oil

Green Onion Vegetable

Black Bean Paste Condiment

Rice Cake Cereal Grain

Fish Cake Seafood

Cornstarch Cereal grain

Dried Kelp Seaweed

Sausage Meat

Olive Oil Oil

Onion Vegetable

Mushroom Vegetable

Garlic Vegetable

Potato Vegetable

Carrot Vegetable

Curry Flake Spice

Broccoli Vegetable

Bacon Meat

Milk Dairy Product

Cream Dairy Product

Salt Condiment

Pepper Condiment

Parmesan Cheese Dairy Product

Rib Eye Fillet Meat Bell Pepper Vegetable Flour Cereal Grain Condiment Paprika Seasoning Spice Dairy Product Egg Chicken Meat Tomato Sauce Sauce Honey Sugar Ginger Condiment Butter Dairy Product Pork Belly Meat Noodle Cereal Grain List: POSTID INGNAME -----1 Gochujang 1 Sugar 1 Rice Cake 1 Fish Cake 1 Soy Sauce 1 Gochugaru 1 Sesame Seed 1 Sesame Oil 1 Green Onion 2 Black Bean Paste 2 Rice Cake

- 2 Fish Cake
- 2 Green Onion
- 2 Carrot
- 2 Potato
- 2 Cornstarch
- 2 Dried Kelp
- 2 Sugar
- 2 Soy Sauce
- 3 Rice Cake
- 3 Fish Cake
- 3 Sausage
- 3 Olive Oil
- 3 Onion
- 3 Mushroom
- 3 Garlic
- 3 Potato
- 3 Carrot
- 3 Curry Flake
- 4 Rice Cake
- 4 Fish Cake
- 4 Garlic
- 4 Broccoli
- 4 Onion
- 4 Bacon
- 4 Milk
- 4 Cream
- 4 Salt
- 4 Pepper

- 4 Parmesan Cheese
- 5 Rice Cake
- 5 Fish Cake
- 5 Rib Eye Fillet
- 5 Mushroom
- 5 Onion
- 5 Bell Pepper
- 5 Olive Oil
- 6 Flour
- 6 Salt
- 6 Paprika
- 6 Pepper
- 6 Seasoning
- 6 Egg
- 6 Chicken
- 7 Chicken
- 7 Flour
- 7 Salt
- 7 Paprika
- 7 Pepper
- 7 Seasoning
- 7 Egg
- 7 Tomato Sauce
- 7 Gochujang
- 7 Honey
- 7 Sugar
- 7 Soy Sauce
- 7 Garlic

- 7 Sesame Oil
- 8 Chicken
- 8 Olive Oil
- 8 Garlic
- 8 Salt
- 8 Pepper
- 8 Honey
- 8 Butter
- 9 Dried Kelp
- 9 Soy Sauce
- 9 Pork Belly
- 9 Pepper
- 9 Olive Oil
- 9 Carrot
- 9 Garlic
- 9 Ginger
- 9 Egg
- 9 Noodle
- 10 Dried Kelp
- 10 Soy Sauce
- 10 Pork Belly
- 10 Pepper
- 10 Olive Oil
- 10 Carrot
- 10 Garlic
- 10 Ginger
- 10 Egg
- 10 Noodle

10	Green Oni	ion			
10	Onion				
10	Salt				
D.I					
Blog:					
POSTID (	CATEGORY				
11	Food Tour	r			
12	Food Tour	c			
13	Food Tour	r			
14	Food Tour	r			
15	Food Tour	r			
GroverSto	ore:				
STORE	ID NAME		ADDRESS		
1	Walmart		Downtown		
2	Super Sto	ore	Richmond		
3	Costco		Downtown		
4	Walmart		Burnaby		
5	NoFrills		West Point G	Grey	
Inform:					
POSTID	STOREII	)			
1		1			
1		2			
1		3			

10 Mushroom

```
2
   1
3
      3
3
       5
4
       1
5
       3
       5
6
       2
6
       3
6
       4
       2
       3
8
       1
8
       3
9
       5
10
       1
10
```

# MealKit:

	SKU NAME	PRICE INSTRUCTION
into a	101 Tteokbokki pot. 2. put sauce and rice cake. 3. boi	20 1. poor 250ml of water .l for 5 min. 4. enjoy!
into a	102 Jjajang Tteokbokki pot. 2. put Jjajang sauce and rice cake	30 1. poor 250ml of water e. 3. boil for 5 min. 4. enjoy!
into a	103 Curry Tteokbokki pot. 2. put Curry sauce and rice cake.	25 1. poor 250ml of water 3. boil for 5 min. 4. enjoy!

104 Carbonara Tteokbokki 30 1. poor 250ml of water into a pot. 2. put Carbonara sauce and rice cake. 3. boil for 5 min. 4. enjoy!

105 Gungjung Tteokbokki 15 1. poor 250ml of water into a pot. 2. put Gungjung sauce and rice cake. 3. boil for 5 min. 4. enjoy!

106 Fried Chicken 20 1. preheat oven. 2. put frozen chicken in the oven. 3. enjoy!

107 Korean Fried Chicken 20 1. preheat oven. 2. put frozen chicken in the oven. 3. enjoy!

108 Buffalo Wing 22 1. preheat oven. 2. put frozen wing in the oven. 3. enjoy!

109 Shoyu Ramen 23 1. boil noodle. 2. microwave soup. 3. put all together and enjoy!

 $\,$  110 Tonkotsu Ramen  $\,$  24 1. boil noodle. 2. microwave pork and soup. 3. put all together and enjoy!

#### Users:

USERID :	NAME	EMAIL	PASSWORD
1	Bob	bob@ubc.ca	123456
2	David	david@gmail.com	123456
3	Erin	erin@microsoft.com	123456
4	Huan	huan@ubc.ca	123456
5	Jenny	jenny@ubc.ca	123456

# UserType:

EMAIL	TYPE

bob@ubc.ca student

david@gmail.com personal

erin@microsoft.com business

huan@ubc.ca student

jenny@ubc.ca student

# Orders:

ORDERID I	RACKINGID	USERID :	YEAR N	10 I	DΑ
1	131	1	2019	02	28
2	132	1	2019	03	05
3	133	1	2019	03	13
4	134	1	2019	03	18
5	135	1	2019	03	21
6	136	1	2019	04	02
7	137	1	2019	04	09
8	138	1	2019	04	19
9	139	1	2019	04	27
10	140	1	2022	04	02
11	141	1	2022	04	09
12	142	1	2022	04	19
13	143	1	2022	04	27
14	144	1	2022	05	03
15	145	1	2022	05	11
16	146	1	2022	05	22
17	147	1	2022	05	29
18	148	2	2019	02	21
19	149	2	2020	02	28
20	150	2	2021	03	05
21	151	2	2022	03	13
22	152	2	2022	80	18
23	153	3	2022	80	21
24	154	3	2022	08	28

25	155	3	2022	09	05
26	156	3	2022	09	13
27	157	3	2022	09	18
28	158	4	2022	10	21
29	159	4	2022	10	28
30	160	4	2022	12	05
31	161	5	2022	07	13
32	162	5	2022	07	18
33	163	1	2022	05	15
34	164	1	2022	04	14
35	165	1	2022	03	13
36	166	1	2022	02	12
37	167	1	2022	01	11
38	168	2	2022	05	20
39	169	2	2022	04	22
40	170	2	2022	03	29
41	171	3	2021	11	11
42	172	3	2022	10	22
43	173	4	2022	02	11
44	174	5	2022	12	22
45	175	1	2019	02	21

# OrderAddress:

# TRACKINGID ADDRESS

131 308 Negra Arroyo Lane

132 308 Negra Arroyo Lane

308 Negra Arroyo Lane

134	308	Negra	Arroyo	Lane
135	308	Negra	Arroyo	Lane
136	308	Negra	Arroyo	Lane
137	308	Negra	Arroyo	Lane
138	308	Negra	Arroyo	Lane
139	308	Negra	Arroyo	Lane
140	308	Negra	Arroyo	Lane
141	308	Negra	Arroyo	Lane
142	308	Negra	Arroyo	Lane
143	308	Negra	Arroyo	Lane
144	308	Negra	Arroyo	Lane
145	308	Negra	Arroyo	Lane
146	308	Negra	Arroyo	Lane
147	308	Negra	Arroyo	Lane
148	308	Negra	Arroyo	Lane
149	308	Negra	Arroyo	Lane
150	308	Negra	Arroyo	Lane
151	308	Negra	Arroyo	Lane
152	308	Negra	Arroyo	Lane
153	308	Negra	Arroyo	Lane
154	308	Negra	Arroyo	Lane
155	308	Negra	Arroyo	Lane
156	308	Negra	Arroyo	Lane
157	308	Negra	Arroyo	Lane
158	308	Negra	Arroyo	Lane
159	308	Negra	Arroyo	Lane
160	308	Negra	Arroyo	Lane
161	308	Negra	Arroyo	Lane

162	308 Negra Arroyo Lane
163	Vancouver
164	Vancouver
165	Vancouver
166	Vancouver
167	Vancouver
168	Toronto
169	Toronto
170	Toronto
171	New York
172	New York
173	Seattle
174	San Francisco
175	308 Negra Arroyo Lane

# Contain:

SKU	ORDERID
101	1
101	2
101	17
101	26
101	33
101	38
102	3
102	6
102	9
102	12

102	15
102	21
102	27
102	34
102	39
103	19
103	35
103	40
103	43
104	4
104	16
104	18
104	25
104	28
104	32
104	36
104	41
105	20
105	22
105	23
105	30
105	37
105	42
105	44
105	45
107	7
107	8
107	10

107	13
109	29
109	31
110	5
110	11
110	14
110	24

# Comments:

Table starts empty.

# Explains:

SKU	POSTID
101	1
102	2
103	3
104	4
105	5
106	6
107	7
108	8
109	9
110	10

# **SQL** queries used

- 1. INSERT
- INSERT INTO Comments(postId, commentId, rating, content, userId) VALUES (\$view\_num, comment\_seq.NEXTVAL, \$rating, '\$content', \$userId);

#### 2. DELETE

DELETE FROM Comments WHERE postid = \$postid AND commentid = \$commentid;

#### 3. UPDATE

• UPDATE Comments SET content= '\$content', rating = \$rating WHERE postId = \$postId AND commentId = \$commentId;

#### 4. Selection

- SELECT \* FROM GroceryStore WHERE storeld IN (SELECT storeld FROM Inform WHERE postid = \$postid);
- SELECT \* FROM Users WHERE email = '\$email' AND password = '\$password';
- SELECT rating, content FROM Comments WHERE postId = \$postId AND commentId = \$commentId;
- SELECT \* FROM Orders o WHERE o.userId = '{\$ SESSION['id']}';
- SELECT SUM(mk.price) AS totalSum FROM MealKit mk, Contain c, Orders o WHERE c.orderId = o.orderId AND o.userId = '{\$\_SESSION['id']}' AND mk.SKU = c.SKU";

#### 5. Projection

- SELECT p.postld, p.title, p.content FROM Post p, Blog b WHERE p.postld = b.postld;
- SELECT p.postId, p.title, p.content FROM Post p, MealPosts mp WHERE p.postId = mp.postId;
- SELECT p.postld, p.title, p.content FROM Post p, MealPosts mp WHERE p.postld = mp.postld AND p.postld IN (SELECT postld FROM Comments GROUP BY postld);
- SELECT u.name, c.rating, c.content, c.commentId, u.userId FROM Comments c JOIN Users u ON c.userId = u.userId WHERE c.postId = \$view num;
- SELECT mk.SKU, mk.price, mk.instruction FROM MealKit mk, Explains s, Post p, MealPosts mp WHERE p.postld = mp.postld AND mp.postld = s.postld AND s.postld = \$view\_num AND s.SKU = mk.SKU;
- SELECT mk.name, o.orderld, o.trackingld, o.userld, o.year, o.month, mk.priceFROM Orders o, Contain c,
   MealKit mk WHERE mk.SKU = c.SKU AND o.orderld = c.orderld AND o.userlD = '{\$\_SESSION['id']}' ORDER BY
   o.year desc, o.month desc;
- SELECT mk.name, o.orderld, o.trackingld, o.userld, o.year, o.month, mk.price FROM Orders o, Contain c,
  MealKit mk WHERE mk.SKU = c.SKU AND o.orderld = c.orderld AND o.userlD = '{\$\_SESSION['id']}' AND
  o.year = '\$orderyear' AND o.month = '\$ordermonth' ORDER BY o.year desc, o.month desc;

#### 6. Join

- SELECT \* FROM Post p INNER JOIN Blog b ON p.postId = b.postId AND p.postId = \$view\_num;
- SELECT \* FROM Post p INNER JOIN MealPosts mp ON p.postId = mp.postId WHERE p.postId = \$view num;

#### 7. Aggregation with Group By

- SELECT mk.name, count(\*) AS Count, SUM(mk.price) AS Total FROM MealKit mk, Contain c, Orders o
  WHERE c.orderId = o.orderId AND o.userId = '{\$\_SESSION['id']}' AND mk.SKU = c.SKU GROUP BY mk.name,
  mk.price;
- SELECT o.year, o.month, Count(\*) FROM Orders o WHERE o.userID = '{\$\_SESSION['id']}' GROUP BY o.year, o.month ORDER BY o.year desc, o.month desc;

#### 8. Aggregation with Having

 SELECT p.postld, p.title, p.content FROM Post p, MealPosts mp WHERE p.postld = mp.postld AND p.postld IN (SELECT postld FROM Comments GROUP BY postld HAVING avg(rating) >= 8);

# 9. Nested Aggregation with Group By

SELECT p.postId, p.title, p.content FROM Post p, MealPosts mp WHERE p.postId = mp.postId AND p.postId IN (SELECT c1.postId FROM Comments c1 GROUP BY c1.postId HAVING COUNT(\*) = (SELECT MAX(COUNT(\*)) FROM Comments c2 GROUP BY c2.postId));

#### 10. Division

 SELECT p.postId, p.title, p.content FROM Post p, MealPosts mp WHERE p.postId = mp.postId AND NOT EXISTS ((SELECT distinct I1.postId FROM List I1 WHERE I1.postId = p.postId) MINUS (SELECT distinct I2.postId FROM List I2 WHERE I2.ingName = '\$item'));

# Screenshots of the sample output

#### 1. INSERT

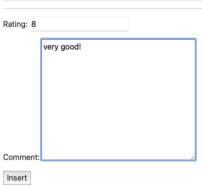
Comment table before insertion.



By clicking the "Insert" button, below query will execute.

\$sql = "INSERT INTO Comments(postId, commentId, rating, content, userId) VALUES (\$view\_num, comment\_seq.NEXTVAL, \$rating, '\$content', \$userId)";

# Comment



Comment table after insertion.



#### 2. DELETE

Comment table before deletion.



By clicking the "Delete" button, below query will execute.

\$sql = "DELETE FROM Comments WHERE postid = \$postid AND commentid = \$commentid";

# Comment

Name: Bob Rating: 8
Content: very good!
Update Delete

Comment table after deletion.

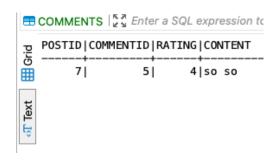
```
COMMENTS | S T Enter a SQL expression to filter results (use Ctrl+Space)

POSTID|COMMENTID|RATING|CONTENT|USERID|

TO STAND THE PROPERTY OF T
```

#### 3. UPDATE

Comment table before update.



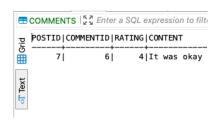
By clicking the "Update" button, below query will execute.

\$sql = "UPDATE Comments SET content= '\$content', rating = \$rating WHERE postId = \$postId AND commentId = \$commentId";

# **Update Comment**



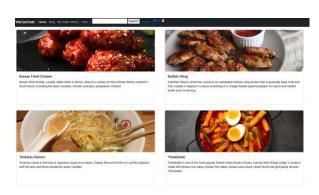
Comment table after update.



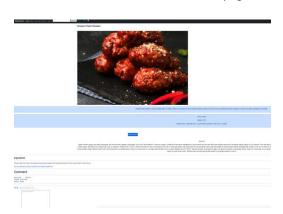
#### 4. Selection

By clicking the "Korean Fried Chicken" meal kit image on the Home page, below query will execute.

\$sql = "SELECT \* FROM Post p INNER JOIN MealPosts mp ON p.postld = mp.postld WHERE p.postld = \$view\_num";



Queried "Korean Fried Chicken" detail page.



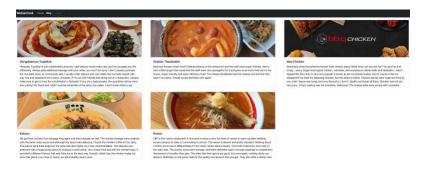
# 5. Projection

By clicking "Blog" button on the navigation bar, below query will execute.

#### \$sql = "SELECT p.postId, p.title, p.content FROM Post p, Blog b WHERE p.postId = b.postId";



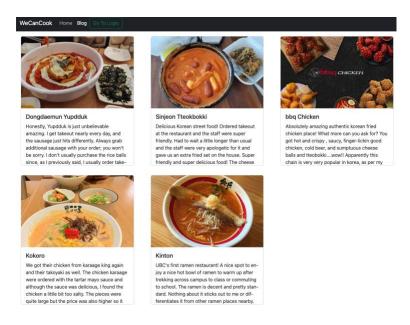
#### Queried Blog posts.



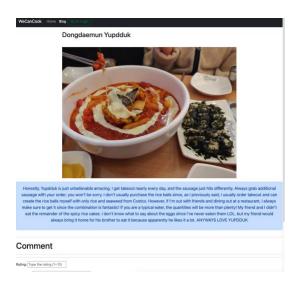
#### 6. Join

By clicking "Dongdaemun Yupdduk" image on the Blog page, below query will execute.

# \$sql = "SELECT \* FROM Post p INNER JOIN Blog b ON p.postId = b.postId AND p.postId = \$view\_num";



Queried "Dongdaemun Yupdduk" detail page.



### 7. Aggregation with Group By

By clicking "My Order History" on the Navigation bar, below query will execute.

\$sql = "SELECT mk.name, count(\*) AS Count, SUM(mk.price) AS Total FROM MealKit mk, Contain c, Orders o WHERE c.orderId = o.orderId AND o.userId = '{\$\_SESSION['id']}' AND mk.SKU = c.SKU GROUP BY mk.name, mk.price";



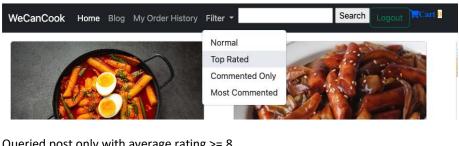
Queried "Total value of all your orders" of current user.



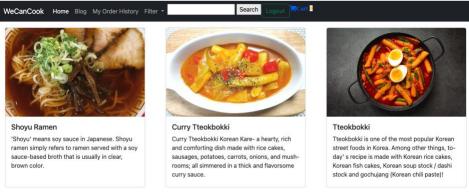
# 8. Aggregation with Having

By clicking "Top Rated" int the "Filter", below query will execute.

\$sql = "SELECT p.postId, p.title, p.content FROM Post p, MealPosts mp WHERE p.postId = mp.postId AND p.postid IN (SELECT postid FROM Comments GROUP BY postid HAVING avg(rating) >= 8)";



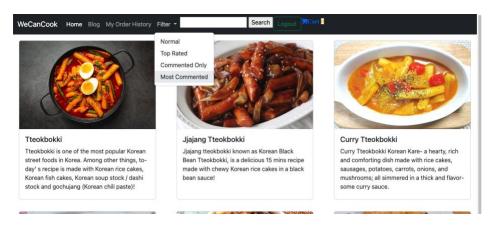
Queried post only with average rating >= 8.



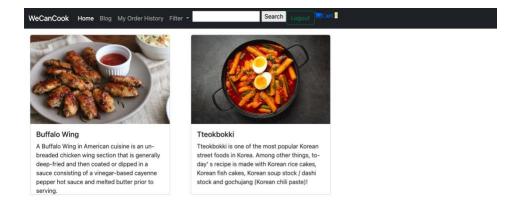
#### 9. Nested Aggregation with Group By

By clicking "Most Commented" int the "Filter", below query will execute.

\$sql = "SELECT p.postId, p.title, p.content FROM Post p, MealPosts mp WHERE p.postId = mp.postId AND p.postId IN (SELECT c1.postid FROM Comments c1 GROUP BY c1.postid HAVING COUNT(\*) = (SELECT MAX(COUNT(\*)) FROM Comments c2 GROUP BY c2.postId))";



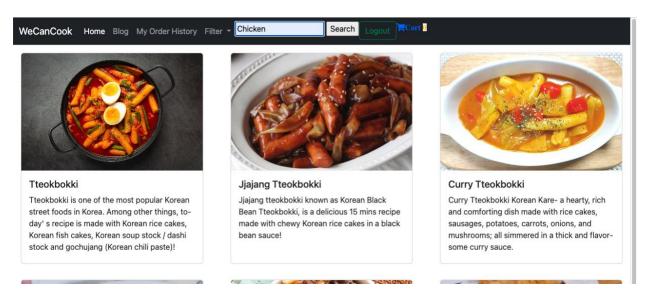
Queried post with the most commented.



#### 10. Division

By clicking "Search" button with the ingredient name "Chicken", below query will be executed.

\$sql = "SELECT p.postId, p.title, p.content FROM Post p, MealPosts mp WHERE p.postId = mp.postId AND NOT EXISTS ((SELECT distinct I1.postId FROM List I1 WHERE I1.postId = p.postId) MINUS (SELECT distinct I2.postId FROM List I2 WHERE I2.ingName = '\$item'))";



Queried meal kit post that contains "Chicken" in the ingredient list.



#### Fried Chicken

Fried chicken, also known as Southern fried chicken, is a dish consisting of chicken pieces that have been coated with seasoned flour or batter and pan-fried, deep fried, pressure fried, or air fried.



#### Korean Fried Chicken

Korean fried chicken, usually called chikin in Korea, refers to a variety of fried chicken dishes created in South Korea, including the basic huraideu-chicken and spicy yangnyeom chicken.



#### **Buffalo Wing**

Cart 0

A Buffalo Wing in American cuisine is an unbreaded chicken wing section that is generally deep-fried and then coated or dipped in a sauce consisting of a vinegar-based cayenne pepper hot sauce and melted butter prior to serving.