

# 2023-2 Big Data Application Team Project Report

## <Analysis of Restaurant Data>

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## 1. Project Description (서선아)

저희 팀은 이대 및 신촌 지역 음식점에 대한 데이터를 빅데이터 분석으로 시뮬레이션하여 웹사이트로 구현하였습니다. 웹사이트를 통해 음식점 목록을 음식 종류에 따라 필터링 기능을 통해 살펴보고 각 음식점의 메뉴 및 리뷰와 같은 상세 정보를 보고 음식을 주문을 할 수 있게 만들었습니다. 홈페이지에서는 손님 혹은 사장으로 가입이 가능하며 관리자 페이지를 통해 주문, 재고 등의 데이터를 관리할 수 있게 제작하였습니다. XAMMP(Apache, PHP, MariaDB)를 툴로 사용하였으며, 데이터셋은 이대 및 신촌 지역 음식점들입니다.

Some of the details of our project include:

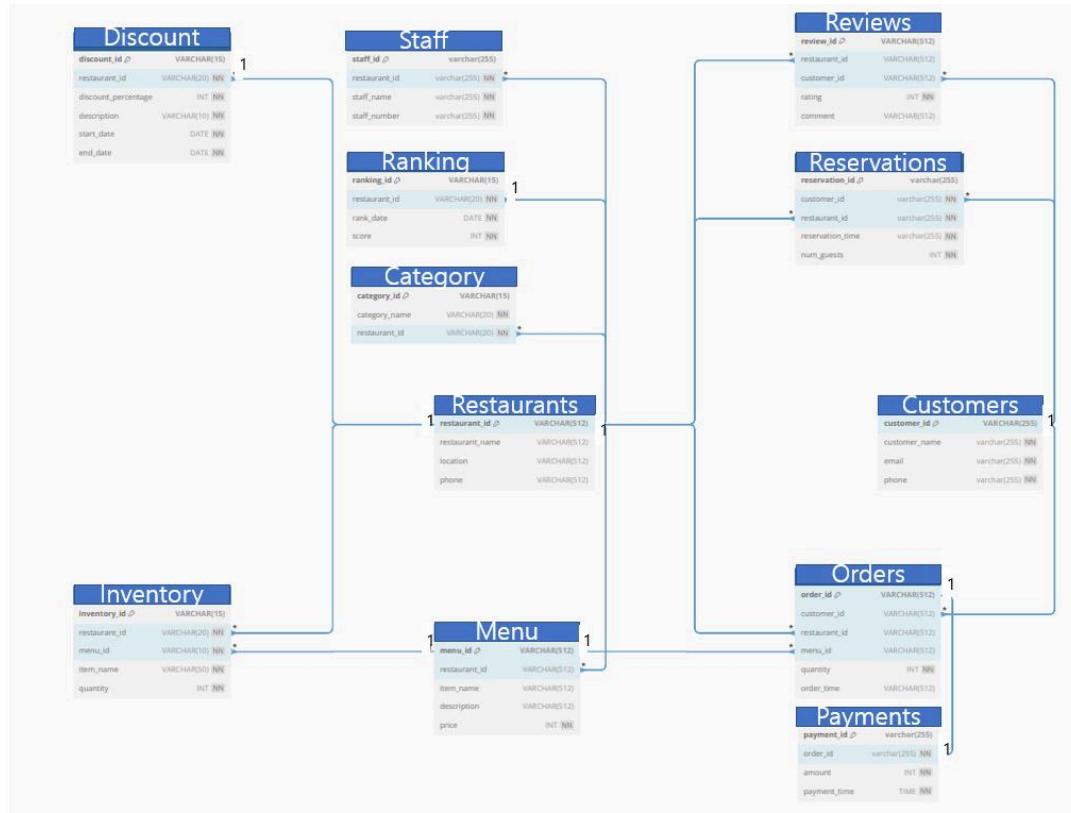
- i. Data set – restaurants in Sinchon area
- ii. Tools – XAMMP (Apache, PHP, MariaDB)
- iii. Any other progress made – [dbdiagram.io](http://dbdiagram.io)

## 2. Schedules

10/16	레스토랑 데이터 분석으로 프로젝트 주제 결정
10/25	노션을 만들어 프로젝트 관련 문서 및 일정 공유
10/26	각각의 역할, 기능, 데이터베이스 테이블에 대한 의논
10/29	데이터베이스 스크립트 완성
10/31	프론트엔드와 백엔드로 역할 분담
11/6	프로젝트 프로포절 제출
11/13	마감 기한 연장으로 앞으로의 일정 계획 및 역할 분담
11/16	각각의 코드 공유 및 상호피드백
11/18	데모 영상, 최종 코드 완성
11/19	제출해야 하는 모든 서류 완성
11/20	프로젝트 파이널 레포트와 데모, 피피티 등 제출
11/22	발표

### 3. Database scheme (서선아)

#### 1) ER diagram



#### 2) description of each table

**Restaurants (restaurant\_id[PK], restaurant\_name, location, phone)** : This table stores information about 20 restaurants around EWHA Womans University and Sinchon. It contains various kinds of restaurant names and their detailed information such as location and phone number.

**Menu (menu\_id[PK], restaurant\_id[FK], item\_name, description, price)** : This table describes menus of each restaurant. It includes attributes such as item\_name which represents the name of the menu, description of the menu which explains about the food and how you will enjoy it. Lastly of course, the price of the menu.

**Customers (customer\_id[PK], customer\_name, email, phone)** : This table stores the information of customers who are signed in on our webpage. It includes customer's names and their personal information such as their email addresses and phone numbers. Our customers' data includes the celebrities in Korea.

**Orders (order\_id[PK], customer\_id[FK], restaurant\_id[FK], menu\_id, quantity, order\_time)** : It describes what kind of menu the customer has ordered. It includes the data of the menu's id, how many have they ordered, and order time.

[Reviews \(review\\_id\[PK\], restaurant\\_id\[FK\], customer\\_id\[FK\], rating, comment\)](#) : This table stores information about reviews of customers who experienced a meal in the restaurant. It has a total of 70 reviews, and they include information about the restaurant's atmosphere, service, hygiene, food and so on. It also contains the ratings of the customers 1 to 5.

[Payments\(payment\\_id\[PK\], order\\_id\[FK\], amount, payment\\_time\)](#) : This table stores information about customer's payment in the restaurant. It is only related to the 'Orders' table, which means the amount of the payment is calculated according to the data of the 'Orders' table. It might be calculated through the quantity of the menu. We can acknowledge the menu's price through the relationship of 'Menu' and 'Orders' table as well. This table also tells the time of the payment.

[Reservations \(reservation\\_id\[PK\], customer\\_id\[FK\], restaurant\\_id\[FK\], reservation\\_time, num\\_guests\)](#) : Reservations table stores information about restaurant reservations. It includes the time and the number of guests.

[Staff \(staff\\_id\[PK\], restaurant\\_id\[FK\], staff\\_name, staff\\_number\)](#) : This table includes the information about staff in the restaurants. It includes their names and their phone numbers. Staff data include famous scientists and singers of all time

[Category \(category\\_id\[PK\], category\\_name, restaurant\\_id\[FK\]\)](#) : Category table represents the cuisine of the restaurant. It has a total of 5 different categories, 'Korean', 'Chinese', 'Japanese', 'Western' and lastly 'Snacks'.

[Ranking \(ranking\\_id\[PK\], restaurant\\_id\[FK\], rank\\_date, score\)](#) : This table shows the rank of each restaurant. It also shows when the rank was calculated(date), and the score it has got.

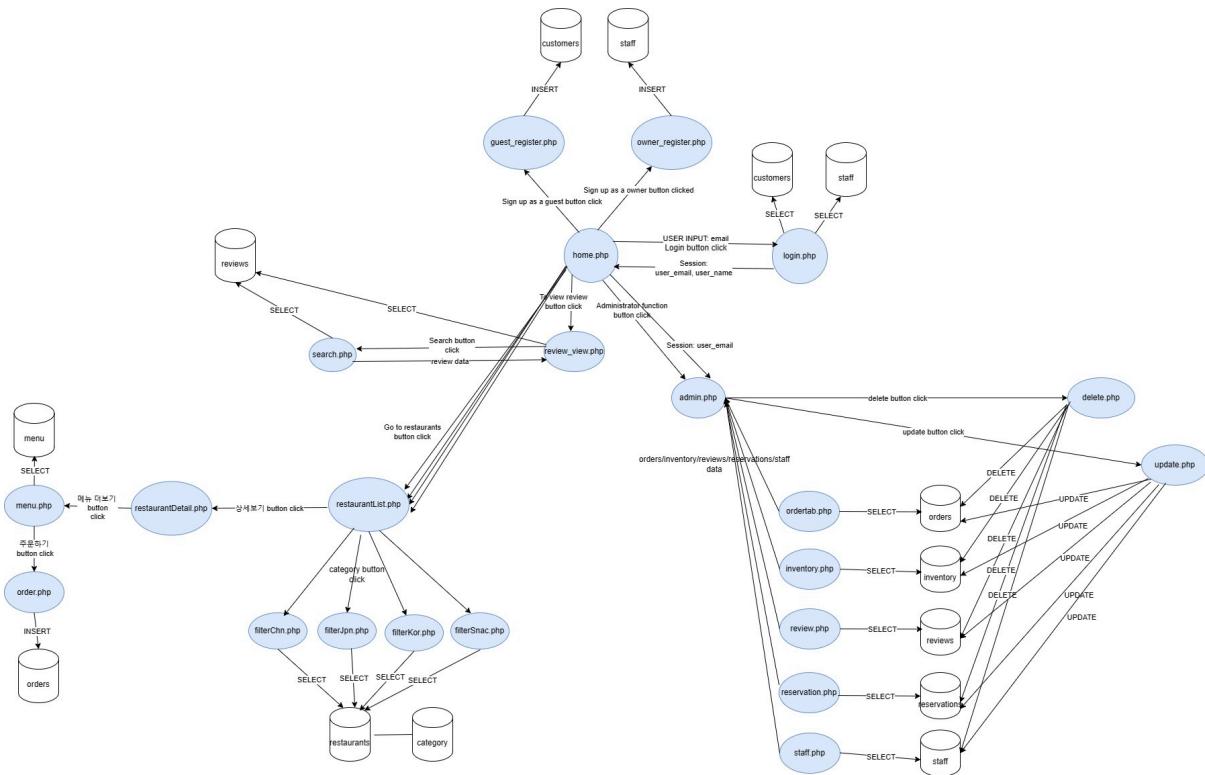
[Inventory \(inventory\\_id\[PK\], restaurant\\_id\[FK\], menu\\_id\[FK\], item\\_name, quantity\)](#) : It represents the left quantities of menus. Inventory table includes data of restaurant's id, menu id, menu name and quantity.

[Discount \(discount\\_id\[PK\], restaurant\\_id\[FK\], discount\\_percentage, description, start\\_date, end\\_date\)](#) : Discount table includes the data of percentage of the discounts the restaurants provides. Discount has a period which is shown by start date and end date data. Description data describes how much percentage points of discounts.

### 3) Relationship

- Restaurants & Menu: Each restaurant can have multiple menus associated with it. This establishes a '*one-to-many*' relationship between restaurant and menu.
- Restaurants & Orders: Each restaurant can have multiple orders associated with it. This establishes a '*one-to-many*' relationship between restaurant and order.
- Customers & Orders: Each customer can have multiple orders associated with it. This establishes a '*one-to-many*' relationship between customer and order.
- Restaurants & Reviews : Each restaurant can have multiple reviews associated with it. This establishes a '*one-to-many*' relationship between restaurant and reviews.
- Customers & Reviews : Each customer can have multiple reviews associated with it. This establishes a '*one-to-many*' relationship between customer and review.
- Payments & Orders : Each order can only have a single payment associated with it. This establishes a '*one-to-one*' relationship between payments and orders.
- Restaurants & Staff : Each restaurant can have multiple staff associated with it since the staff belong to each restaurant. This establishes a '*one-to-many*' relationship between restaurants and staff.
- Restaurants & Category: Each Restaurant can have one specific category and each category can have many restaurants. This establishes a '*one-to-many*' relationship between restaurant and category.
- Ranking & Restaurant : Each restaurant can only have a single rank associated with it. This establishes a '*one-to-one*' relationship between restaurants and ranking.
- Restaurants & Inventory : Each restaurant can have multiple inventories associated with it since the restaurant has a variety of menus. This establishes a '*one-to-many*' relationship between restaurants and inventory.
- Menu & Inventory : Each menu can have multiple inventories and each inventory is for a single menu. This establishes a '*one-to-many*' relationship between menu and inventory.
- Discount & Restaurants : Each restaurant can only have a single discount event associated with it. This establishes a '*one-to-one*' relationship between discount and restaurants.

#### 4. overview of PHP code structure(diagram) (김윤선)



#### 5. Project results (1-8) explanation (서선아)

##### 1) Theme of the project

- Analysis of Restaurant Data

##### 2) Database Scripts

- These scripts can be used to create the database, and also clean up the database to upgrade or recreate the database.
- First, script를 실행하기 위해 로그인한다.
- login to “mysql -u [username] -p”, and “Enter the password:[password]”
- Second, “Use [database name]”로 데이터베이스를 사용한다.
- 이 때 [username] = [password] = [database name] = team12
- The scripts can be executed by the "source" command : Example) source myscript.sql

“source” command 실행 화면

- 위 실행화면은 team12 database가 database script ( USE DATABASE and CREATE TABLE, INSERT, 등의 샘플 데이터베이스를 초기화시키는 SQL 구문을 포함함 )로 미리 만들어졌음을 증명한다.

## (2-1) database creation scripts (dbcreate.sql) (ALL)

: The database creation script should not only create tables but also have primary keys, foreign keys, and index creation statements.

### <Restaurants table>

query	result
<pre>USE team12;  CREATE TABLE Restaurants (     restaurant_id  VARCHAR(255) PRIMARY KEY,     restaurant_name VARCHAR(255),     location      VARCHAR(255),     phone         VARCHAR(255) );</pre>	<pre>mysql&gt; describe restaurants; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   restaurant_id   varchar(255)   NO   PRI   NULL     restaurant_name   varchar(255)   YES         NULL     location   varchar(255)   YES         NULL     phone   varchar(255)   YES         NULL   +-----+-----+-----+-----+-----+ 4 rows in set (0.02 sec)</pre>

- primary key: restaurant\_id

### <Menu table>

query	result
<pre>CREATE TABLE Menu (     menu_id VARCHAR(255) PRIMARY KEY,     restaurant_id  VARCHAR(255),     item_name    VARCHAR(255),     description   VARCHAR(255),     price        INT NOT NULL,     FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) );</pre>	<pre>mysql&gt; describe menu; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   menu_id   varchar(255)   NO   PRI   NULL     restaurant_id   varchar(255)   YES   MUL   NULL     item_name   varchar(255)   YES         NULL     description   varchar(255)   YES         NULL     price   int(11)   NO         NULL   +-----+-----+-----+-----+-----+ 5 rows in set (0.02 sec)</pre>

- primary key: menu\_id
- foreign key: restaurant\_id

### <Customers table>

query	result
<pre>create table Customers (     customer_id VARCHAR(255) PRIMARY KEY,     customer_name varchar(255) NOT NULL,     email        varchar(255) NOT NULL,     phone        varchar(255) NOT NULL );</pre>	<pre>mysql&gt; describe customers; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   customer_id   varchar(255)   NO   PRI   NULL     customer_name   varchar(255)   NO         NULL     email   varchar(255)   NO         NULL     phone   varchar(255)   NO         NULL   +-----+-----+-----+-----+-----+ 4 rows in set (0.04 sec)</pre>

- primary key: customer\_id

### <Orders table>

query	result
<pre>CREATE TABLE Orders (     order_id  VARCHAR(255) PRIMARY KEY,     customer_id  VARCHAR(255),     restaurant_id  VARCHAR(255),     menu_id  VARCHAR(255),     quantity  INT NOT NULL,     order_time  VARCHAR(255),      FOREIGN KEY (customer_id) REFERENCES Customers(customer_id) ON UPDATE CASCADE,     FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id),     FOREIGN KEY (menu_id) REFERENCES Menu(menu_id) ON UPDATE CASCADE );</pre>	<pre>mysql&gt; describe orders; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   order_id   varchar(255)   NO   PRI   NULL     customer_id   varchar(255)   YES   MUL   NULL     restaurant_id   varchar(255)   YES   MUL   NULL     menu_id   varchar(255)   YES   MUL   NULL     quantity   int(11)   NO   NULL   NULL     order_time   varchar(255)   YES   NULL   NULL   +-----+-----+-----+-----+-----+ 6 rows in set (0.02 sec)</pre>

- primary key: order\_id
- foreign keys: customer\_id, restaurant\_id

### <Reviews table>

query	result
<pre>CREATE TABLE Reviews (     review_id  VARCHAR(255) PRIMARY KEY,     restaurant_id  VARCHAR(255),     customer_id  VARCHAR(255),     rating  INT NOT NULL,     comment VARCHAR(255),      FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id),     FOREIGN KEY (customer_id) REFERENCES Customers(customer_id) );</pre>	<pre>mysql&gt; describe reviews; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   review_id   varchar(255)   NO   PRI   NULL     restaurant_id   varchar(255)   YES   MUL   NULL     customer_id   varchar(255)   YES   MUL   NULL     rating   int(11)   NO   NULL   NULL     comment   varchar(255)   YES   NULL   NULL   +-----+-----+-----+-----+-----+ 5 rows in set (0.02 sec)</pre>

- primary key: review\_id
- foreign keys: restaurant\_id, customer\_id

### <Payments table>

query	result
<pre>create table Payments (     payment_id  varchar(255) PRIMARY KEY,     order_id  varchar(255) NOT NULL,     amount  INT NOT NULL,     payment_time  TIME NOT NULL,      FOREIGN KEY (order_id) REFERENCES Orders (order_id)     ON DELETE CASCADE );</pre>	<pre>mysql&gt; describe payments; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   payment_id   varchar(255)   NO   PRI   NULL     order_id   varchar(255)   NO   MUL   NULL     amount   int(11)   NO   NULL   NULL     payment_time   time   NO   NULL   NULL   +-----+-----+-----+-----+-----+ 4 rows in set (0.02 sec)</pre>

- primary key: payment\_id
- foreign key: order\_id

### <Reservations table>

query	result
<pre>create table Reservations (     reservation_id varchar(255) PRIMARY KEY,     customer_id varchar(255) NOT NULL,     restaurant_id varchar(255) NOT NULL,     reservation_time varchar(255) NOT NULL,     num_guests INT NOT NULL,      FOREIGN KEY (customer_id) REFERENCES Customers (customer_id),     FOREIGN KEY (restaurant_id) REFERENCES Restaurants (restaurant_id) );</pre>	<pre>mysql&gt; describe reservations; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   +-----+-----+-----+-----+-----+   reservation_id   varchar(255)   NO   PRI   NULL     customer_id   varchar(255)   NO   MUL   NULL     restaurant_id   varchar(255)   NO   MUL   NULL     reservation_time   varchar(255)   NO   MUL   NULL     num_guests   int(11)   NO   MUL   NULL   +-----+-----+-----+-----+-----+ 5 rows in set (0.02 sec)</pre>

- primary key: reservation\_id, foreign keys: customer\_id, restaurant\_id

### <Staff table>

query	result
<pre>create table Staff (     staff_id varchar(255) PRIMARY KEY,     restaurant_id varchar(255) NOT NULL,     staff_name varchar(255) NOT NULL,     staff_number varchar(255) NOT NULL,      FOREIGN KEY (restaurant_id) REFERENCES Restaurants (restaurant_id) );</pre>	<pre>mysql&gt; describe staff; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   +-----+-----+-----+-----+-----+   staff_id   varchar(255)   NO   PRI   NULL     restaurant_id   varchar(255)   NO   MUL   NULL     staff_name   varchar(255)   NO   MUL   NULL     staff_number   varchar(255)   NO   MUL   NULL   +-----+-----+-----+-----+-----+ 4 rows in set (0.02 sec)</pre>

- primary key: staff\_id, foreign key: restaurant\_id

### <Category table>

query	result
<pre>CREATE TABLE Category (     category_id VARCHAR(255) PRIMARY KEY,     category_name VARCHAR(255) NOT NULL,     restaurant_id VARCHAR(255) NOT NULL,      FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) ON DELETE CASCADE );</pre>	<pre>mysql&gt; describe category; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   +-----+-----+-----+-----+-----+   category_id   varchar(255)   NO   PRI   NULL     category_name   varchar(255)   NO   MUL   NULL     restaurant_id   varchar(255)   NO   MUL   NULL   +-----+-----+-----+-----+-----+ 3 rows in set (0.02 sec)</pre>

- primary key: category\_id, foreign key: restaurant\_id

### <Ranking table> primary key: ranking\_id, foreign key: restaurant\_id

query	result
<pre>CREATE TABLE Ranking (     ranking_id VARCHAR(225) PRIMARY KEY,     restaurant_id VARCHAR(255) NOT NULL,     rank_date DATE NOT NULL,     score INT NOT NULL,      FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) ON DELETE CASCADE );</pre>	<pre>mysql&gt; describe ranking; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   +-----+-----+-----+-----+-----+   ranking_id   varchar(225)   NO   PRI   NULL     restaurant_id   varchar(255)   NO   MUL   NULL     rank_date   date   NO   MUL   NULL     score   int(11)   NO   MUL   NULL   +-----+-----+-----+-----+-----+ 4 rows in set (0.02 sec)</pre>

### <Inventory table>

query	result
<pre>CREATE TABLE Inventory (     inventory_id VARCHAR(255) PRIMARY KEY,     restaurant_id VARCHAR(255) NOT NULL,     menu_id VARCHAR(255) NOT NULL,     item_name VARCHAR(255) NOT NULL,     quantity INT NOT NULL,      FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) ON DELETE CASCADE,     FOREIGN KEY (menu_id) REFERENCES Menu(menu_id) ON UPDATE CASCADE ON DELETE CASCADE );</pre>	<pre>mysql&gt; describe inventory; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   inventory_id   varchar(255)   NO   PRI   NULL                restaurant_id   varchar(255)   NO   MUL   NULL                menu_id   varchar(255)   NO   MUL   NULL                item_name   varchar(255)   NO          NULL                quantity   int(11)   NO          NULL              +-----+-----+-----+-----+-----+ 5 rows in set (0.02 sec)</pre>

- primary key: inventory\_id
- foreign keys: restaurant\_id, menu\_id

### <Discount table>

query	result
<pre>CREATE TABLE Discount (     discount_id VARCHAR(255) PRIMARY KEY,     restaurant_id VARCHAR(255) NOT NULL,     discount_percentage INT NOT NULL,     description VARCHAR(255) NOT NULL,     start_date DATE NOT NULL,     end_date DATE NOT NULL,      FOREIGN KEY (restaurant_id) REFERENCES Restaurants(restaurant_id) ON DELETE CASCADE );</pre>	<pre>mysql&gt; describe discount; +-----+-----+-----+-----+-----+   Field   Type   Null   Key   Default   Extra   +-----+-----+-----+-----+-----+   discount_id   varchar(255)   NO   PRI   NULL                restaurant_id   varchar(255)   NO   MUL   NULL                discount_percentage   int(11)   NO          NULL                description   varchar(255)   NO          NULL                start_date   date   NO          NULL                end_date   date   NO          NULL              +-----+-----+-----+-----+-----+ 6 rows in set (0.02 sec)</pre>

- primary key: discount\_id
- foreign key: restaurant\_id

### <Index in Discount table>

query	result
<pre>CREATE INDEX d_percentage_idx ON Discount(discount_percentage);</pre>	<pre>mysql&gt; show index from Discount; +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+   Table   Non_unique   Key_name   Seq_in_Index   Column_name   Collation   Cardinality   Sub_part   Packed   Null   Index_type   Comment   Index_comment   +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+   discount   0   PRIMARY   1   discount_id   A   0   NULL   NULL   BTREE                                      discount   1   Restaurant_id   1   restaurant_id   A   0   NULL   NULL   BTREE                                      discount   1   d_percentage_idx   1   discount_percentage   A   0   NULL   NULL   BTREE                                    +-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+</pre> <p>3 rows in set (0.00 sec)</p>

- Discount 테이블에는 'discount\_percentage' column을 가지고 인덱스를 create하였다.
- show index \* from Discount; 쿼리를 이용하여 Index\_type이 B-tree index임을 알 수 있다.

**(2-2) data insert scripts (dbinsert.sql) (ALL)** The database insert script should include insert statements into the database to initialize the sample database

=> INSERT INTO [테이블명] (속성1, 속성2, ...) VALUES (value1, value2, ...), ... ;  
쿼리를 이용하여 샘플 데이터베이스를 초기화하였다.

*<Restaurants table>* -20 records

query	result
<pre>INSERT INTO Restaurants (restaurant_id, restaurant_name, location, phone) VALUES ('restaurant1', '길상포도', '서울 서대문구 연희동가로 17 (용문동, 2층)', '0507-1469-8022'), ('restaurant2', '별미집', '서울 서대문구 북이동로 78 (용문동, 2층)', '0507-1321-9111'), ('restaurant3', '마파신촌은', '서울 서대문구 이화여대길 29 101호', '02-365-1757'), ('restaurant4', '피마37', '서울 서대문구 이화여대길 77-1', '0507-1363-0988'), ('restaurant5', '이언', '서울 서대문구 이화여대길 77 2층', '0507-1485-8771'), ('restaurant6', '포트폴리오스', '서울 서대문구 홍제역길 11 1층', '0507-1660-2280'), ('restaurant7', '아온스쿨', '서울 서대문구 신촌로 17 1층 118호', '0507-1376-1361'), ('restaurant8', '우미부분', '서울 서대문구 신촌로로 18', 'null'), ('restaurant9', '유미드로프', '서울 서대문구 이화여대길 28 181호', '02-6401-7991'), ('restaurant10', '한진정화', '서울 서대문구 이화여대길 18', '0507-1324-9370'), ('restaurant11', '미트리타운정수', '서울 서대문구 신촌로로 16 103호 가이드로프', '0507-1368-8869'), ('restaurant12', '정경집', '서울 서대문구 신촌로로 21 1층', '0507-1325-3314'), ('restaurant13', '조미네', '서울 서대문구 이화여대길 21 3층', '0507-1478-5681'), ('restaurant14', '정민마마', '서울 서대문구 이화여대길 15 1층(정민마마)', '010-2844-7954'), ('restaurant15', '술집길집', '서울 서대문구 백범로 74 101호', '0507-1302-1834'), ('restaurant16', '카페마리', '서울 서대문구 신촌로 229', '02-312-5977'), ('restaurant17', '여행집', '서울 서대문구 신촌로 24 1층', '070-7779-8899'), ('restaurant18', '정의원', '서울 서대문구 이화여대길 24 1층', '02-713-1131'), ('restaurant19', '마파분식', '서울 서대문구 이화여대길 79 3층', '0507-1315-1818'); ('restaurant20', '마파분식', '서울 마포구 고려광교로길 41 1층', '0507-1315-1818');</pre>	<pre>mysql&gt; select * from restaurants; +-----+-----+-----+-----+   restaurant_id   restaurant_name   location   phone   +-----+-----+-----+-----+   restaurant1   길상포도   서울 서대문구 연희동가로 17 (용문동, 2층)   0507-1469-8022     restaurant2   별미집   서울 서대문구 북이동로 78 (용문동, 2층)   0507-1321-9111     restaurant3   마파신촌은   서울 서대문구 이화여대길 29 101호   02-365-1757     restaurant4   피마37   서울 서대문구 이화여대길 77-1   0507-1363-0988     restaurant5   이언   서울 서대문구 이화여대길 77 2층   0507-1485-8771     restaurant6   포트폴리오스   서울 서대문구 홍제역길 11 1층   0507-1660-2280     restaurant7   아온스쿨   서울 서대문구 신촌로 17 1층 118호   0507-1376-1361     restaurant8   우미부분   서울 서대문구 신촌로로 18   null     restaurant9   유미드로프   서울 서대문구 이화여대길 28 181호   02-6401-7991     restaurant10   한진정화   서울 서대문구 이화여대길 18   0507-1324-9370     restaurant11   미트리타운정수   서울 서대문구 신촌로로 16 103호 가이드로프   0507-1368-8869     restaurant12   정경집   서울 서대문구 신촌로로 21 1층   0507-1325-3314     restaurant13   조미네   서울 서대문구 이화여대길 21 3층   0507-1478-5681     restaurant14   정민마마   서울 서대문구 이화여대길 15 1층(정민마마)   010-2844-7954     restaurant15   술집길집   서울 서대문구 백범로 74 101호   0507-1302-1834     restaurant16   카페마리   서울 서대문구 신촌로 229   02-312-5977     restaurant17   여행집   서울 서대문구 신촌로 24 1층   070-7779-8899     restaurant18   정의원   서울 서대문구 이화여대길 24 1층   02-713-1131     restaurant19   마파분식   서울 서대문구 이화여대길 79 3층   0507-1315-1818     restaurant20   마파분식   서울 마포구 고려광교로길 41 1층   0507-1315-1818   +-----+-----+-----+-----+ 20 rows in set (0.01 sec)</pre>

**<Menu table> -50 records**

<Customers table> -50 records

MySQL > select * from customers;			
customer_id	customer_name	email	phone
customer1	Min Soo Lee	mlee@gmail.com	010-0101-0101
customer10	Bo Yung Park	bboiyk@gmail.com	010-1010-1010
customer11	Kangho Song	ksong@gmail.com	010-1111-1111
customer12	Jenny Kim	ruby@gmail.com	010-1212-1212
customer13	Jisoo Kim	sooye@gmail.com	010-1313-1313
customer14	Hyori Lee	rilee@gmail.com	010-1414-1414
customer15	Sunwoo Junga	wooj@gmail.com	010-1515-1515
customer16	SIKYUNG Sung	skysung@gmail.com	010-1616-1616
customer17	Hyunjin Seo	hjseo@gmail.com	010-1717-1717
customer18	Doo na Bae	dooob@gmail.com	010-1818-1818
customer19	Hae soo kim	sookin@gmail.com	010-1919-1919
customer2	Go Eun Kim	gk@gmail.com	010-2020-2020
customer20	Jung Suk Jo	sjo@gmail.com	010-2121-2121
customer21	Eun jin Ahn	eunj@gmail.com	010-2222-2222
customer22	Hee kyo Song	kyo@gmail.com	010-2323-2323
customer23	Jong Suk Lee	jong@gmail.com	010-2424-2424
customer24	Heungs min Son	son@gmail.com	010-2525-2525
customer25	Yuna Kim	yuna@gmail.com	010-2626-2626
customer26	Hodong Kang	hodong@gmail.com	010-2727-2727
customer27	Jaesuk Yu	jsyu@gmail.com	010-2828-2828
customer28	Seho Jo	seho@gmail.com	010-2929-2929
customer29	Jinkyung Hong	jink@gmail.com	010-3030-3030
customer3	Ji Chul Gong	jgong@gmail.com	010-3030-3030
customer30	Gwang Hee Hwang	ghheee@gmail.com	010-3030-3030
customer31	Miju Lee	miju@gmail.com	010-3131-3131
customer32	Inju Tee	inju@gmail.com	010-3232-3232
customer33	Woo Hee Chun	wooh@gmail.com	010-3333-3333
customer34	Su Yun Jun	syunj@gmail.com	010-3434-3434
customer35	Yoonja Lim	ylim@gmail.com	010-3535-3535
customer36	Yeo Jung Yoon	yoony@gmail.com	010-3636-3636
customer37	Jung Kook Jun	jkook@gmail.com	010-3737-3737
customer38	Young Ji Lee	jilee@gmail.com	010-3838-3838
customer39	Lisa La	lisa@gmail.com	010-3939-3939
customer40	Dong Uk Lee	dlee@gmail.com	010-4040-4040
customer41	Se Jong Yang	sivyang@gmail.com	010-4141-4141
customer42	Dong Yul Shin	shin@gmail.com	010-4141-4141
customer43	Da Mi Lee	dami@gmail.com	010-4242-4242
customer44	Sarang Choo	love@gmail.com	010-4343-4343
customer45	Moo Bin Kim	woobin@gmail.com	010-4444-4444
customer46	Hyun Bin	hb@gmail.com	010-4545-4545
customer47	Ji Hyun Jun	yejin@gmail.com	010-4646-4646
customer48	So Hyun Kim	sohyu@gmail.com	010-4848-4848
customer49	Tee Hee Kim	teeb@gmail.com	010-4949-4949
customer5	Eun Woo Cha	echaa@gmail.com	010-5050-5050
customer50	Ji hoon Jung	bee@gmail.com	010-5050-5050

<Orders table> - 50 records

query							result						
INSERT INTO Orders (order_id, customer_id, restaurant_id, menu_id, quantity, order_time) VALUES							mysql> select * from orders;						
order_id	customer_id	restaurant_id	menu_id	quantity	order_time	order_id	customer_id	restaurant_id	menu_id	quantity	order_time		
'order1'	'customer1'	'restaurant1'	'menu1'	1	'2023g 10g 30g at 8:00'	order1	'customer1'	'restaurant1'	'menu1'	1	'2023g 10g 30g at 8:00'		
'order2'	'customer2'	'restaurant2'	'menu2'	1	'2023g 10g 30g at 8:15'	order10	'customer10'	'restaurant10'	'menu10'	1	'2023g 10g 30g at 8:15'		
'order3'	'customer3'	'restaurant3'	'menu3'	2	'2023g 10g 30g at 8:30'	order11	'customer11'	'restaurant11'	'menu11'	3	'2023g 10g 30g at 8:30'		
'order4'	'customer4'	'restaurant4'	'menu4'	1	'2023g 10g 30g at 8:45'	order12	'customer12'	'restaurant12'	'menu12'	4	'2023g 10g 30g at 8:45'		
'order5'	'customer5'	'restaurant5'	'menu5'	2	'2023g 10g 30g at 9:00'	order13	'customer13'	'restaurant13'	'menu13'	5	'2023g 10g 30g at 9:00'		
'order6'	'customer6'	'restaurant6'	'menu6'	3	'2023g 10g 30g at 9:15'	order14	'customer14'	'restaurant14'	'menu14'	2	'2023g 10g 30g at 9:15'		
'order7'	'customer7'	'restaurant7'	'menu7'	1	'2023g 10g 30g at 9:30'	order15	'customer15'	'restaurant15'	'menu15'	2	'2023g 10g 30g at 9:30'		
'order8'	'customer8'	'restaurant8'	'menu8'	1	'2023g 10g 30g at 9:45'	order16	'customer16'	'restaurant16'	'menu16'	2	'2023g 10g 30g at 9:45'		
'order9'	'customer9'	'restaurant9'	'menu9'	1	'2023g 10g 30g at 10:00'	order17	'customer17'	'restaurant17'	'menu17'	1	'2023g 10g 30g at 10:00'		
'order10'	'customer10'	'restaurant10'	'menu10'	1	'2023g 10g 30g at 10:15'	order18	'customer18'	'restaurant18'	'menu18'	1	'2023g 10g 30g at 10:15'		
'order11'	'customer11'	'restaurant11'	'menu11'	2	'2023g 10g 30g at 10:30'	order19	'customer19'	'restaurant19'	'menu19'	1	'2023g 10g 30g at 10:30'		
'order12'	'customer12'	'restaurant12'	'menu12'	4	'2023g 10g 30g at 10:45'	order20	'customer20'	'restaurant20'	'menu20'	1	'2023g 10g 30g at 10:45'		
'order13'	'customer13'	'restaurant13'	'menu13'	3	'2023g 10g 30g at 11:00'	order21	'customer21'	'restaurant21'	'menu21'	5	'2023g 10g 30g at 11:00'		
'order14'	'customer14'	'restaurant14'	'menu14'	2	'2023g 10g 30g at 11:15'	order22	'customer22'	'restaurant22'	'menu22'	1	'2023g 10g 30g at 11:15'		
'order15'	'customer15'	'restaurant15'	'menu15'	2	'2023g 10g 30g at 12:30'	order23	'customer23'	'restaurant23'	'menu23'	3	'2023g 10g 30g at 12:30'		
'order16'	'customer16'	'restaurant16'	'menu16'	3	'2023g 10g 30g at 12:45'	order24	'customer24'	'restaurant24'	'menu24'	2	'2023g 10g 30g at 12:45'		
'order17'	'customer17'	'restaurant17'	'menu17'	1	'2023g 10g 30g at 1:00'	order25	'customer25'	'restaurant25'	'menu25'	1	'2023g 10g 30g at 1:00'		
'order18'	'customer18'	'restaurant18'	'menu18'	1	'2023g 10g 30g at 1:15'	order26	'customer26'	'restaurant26'	'menu26'	5	'2023g 10g 30g at 1:15'		
'order19'	'customer19'	'restaurant19'	'menu19'	1	'2023g 10g 30g at 1:30'	order27	'customer27'	'restaurant27'	'menu27'	4	'2023g 10g 30g at 1:30'		
'order20'	'customer20'	'restaurant20'	'menu20'	1	'2023g 10g 30g at 1:45'	order28	'customer28'	'restaurant28'	'menu28'	3	'2023g 10g 30g at 1:45'		
'order21'	'customer21'	'restaurant21'	'menu21'	5	'2023g 10g 30g at 2:00'	order29	'customer29'	'restaurant29'	'menu29'	2	'2023g 10g 30g at 2:00'		
'order22'	'customer22'	'restaurant22'	'menu22'	1	'2023g 10g 30g at 2:15'	order30	'customer30'	'restaurant30'	'menu30'	3	'2023g 10g 30g at 2:15'		
'order23'	'customer23'	'restaurant23'	'menu23'	3	'2023g 10g 30g at 2:30'	order31	'customer31'	'restaurant31'	'menu31'	1	'2023g 10g 30g at 2:30'		
'order24'	'customer24'	'restaurant24'	'menu24'	2	'2023g 10g 30g at 2:45'	order32	'customer32'	'restaurant32'	'menu32'	1	'2023g 10g 30g at 2:45'		
'order25'	'customer25'	'restaurant25'	'menu25'	1	'2023g 10g 30g at 3:00'	order33	'customer33'	'restaurant33'	'menu33'	5	'2023g 10g 30g at 3:00'		
'order26'	'customer26'	'restaurant26'	'menu26'	4	'2023g 10g 30g at 3:15'	order34	'customer34'	'restaurant34'	'menu34'	4	'2023g 10g 30g at 3:15'		
'order27'	'customer27'	'restaurant27'	'menu27'	4	'2023g 10g 30g at 3:30'	order35	'customer35'	'restaurant35'	'menu35'	1	'2023g 10g 30g at 3:30'		
'order28'	'customer28'	'restaurant28'	'menu28'	3	'2023g 10g 30g at 3:45'	order36	'customer36'	'restaurant36'	'menu36'	1	'2023g 10g 30g at 3:45'		

order_id	customer_id	restaurant_id	menu_id	order_qty	order_time
'order29'	'customer29'	'restaurant9'	'menu29'	2	'2023년 10월 30일 오후 4:00'
'order30'	'customer30'	'restaurant10'	'menu30'	1	'2023년 10월 30일 오후 4:15'
'order31'	'customer31'	'restaurant11'	'menu31'	1	'2023년 10월 30일 오후 4:30'
'order32'	'customer32'	'restaurant12'	'menu32'	1	'2023년 10월 30일 오후 4:45'
'order33'	'customer33'	'restaurant13'	'menu33'	5	'2023년 10월 30일 오후 5:00'
'order34'	'customer34'	'restaurant14'	'menu34'	4	'2023년 10월 30일 오후 5:15'
'order35'	'customer35'	'restaurant15'	'menu35'	1	'2023년 10월 30일 오후 5:30'
'order36'	'customer36'	'restaurant16'	'menu36'	1	'2023년 10월 30일 오후 5:45'
'order37'	'customer37'	'restaurant17'	'menu37'	1	'2023년 10월 30일 오후 6:00'
'order38'	'customer38'	'restaurant18'	'menu38'	1	'2023년 10월 30일 오후 6:15'
'order39'	'customer39'	'restaurant19'	'menu39'	2	'2023년 10월 30일 오후 6:30'
'order40'	'customer40'	'restaurant20'	'menu40'	2	'2023년 10월 30일 오후 6:45'
'order41'	'customer41'	'restaurant1'	'menu41'	2	'2023년 10월 30일 오후 7:00'
'order42'	'customer42'	'restaurant2'	'menu42'	1	'2023년 10월 30일 오후 7:15'
'order43'	'customer43'	'restaurant3'	'menu43'	3	'2023년 10월 30일 오후 7:30'
'order44'	'customer44'	'restaurant4'	'menu44'	1	'2023년 10월 30일 오후 7:45'
'order45'	'customer45'	'restaurant5'	'menu45'	3	'2023년 10월 30일 오후 8:00'
'order46'	'customer46'	'restaurant6'	'menu46'	1	'2023년 10월 30일 오후 8:15'
'order47'	'customer47'	'restaurant7'	'menu47'	1	'2023년 10월 30일 오후 8:30'
'order48'	'customer48'	'restaurant8'	'menu48'	1	'2023년 10월 30일 오후 8:45'
'order49'	'customer49'	'restaurant9'	'menu49'	1	'2023년 10월 30일 오후 9:00'
'order50'	'customer50'	'restaurant10'	'menu50'	1	'2023년 10월 30일 오후 9:15'

<Reviews table> -70 records

## <Payments table> - 50 records

query	result
<pre> INSERT INTO Payments (payment_id, order_id, amount, payment_time) VALUES ('payment1', 'order1', 11000, "13:30:00"), ('payment2', 'order2', 12000, "13:00:00"), ('payment3', 'order3', 21000, "13:10:20"), ('payment4', 'order4', 22000, "13:20:00"), ('payment5', 'order5', 35000, "13:40:00"), ('payment6', 'order6', 30000, "13:30:40"), ('payment7', 'order7', 20000, "13:45:20"), ('payment8', 'order8', 19000, "13:25:00"), ('payment9', 'order9', 18000, "13:15:00"), ('payment10', 'order10', 21000, "13:30:00"), ('payment11', 'order11', 11000, "13:50:00"), ('payment12', 'order12', 11000, "13:21:40"), ('payment13', 'order13', 51000, "13:42:00"), ('payment14', 'order14', 14000, "13:17:00"), ('payment15', 'order15', 22500, "13:26:00"), ('payment16', 'order16', 31500, "12:58:00"), ('payment17', 'order17', 40000, "12:30:00"), ('payment18', 'order18', 30200, "12:20:00"), ('payment19', 'order19', 15000, "12:45:30"), ('payment20', 'order20', 15000, "12:50:30"), ('payment21', 'order21', 15000, "12:53:30"), ('payment22', 'order22', 12000, "12:56:30"), ('payment23', 'order23', 10000, "13:00:00"), ('payment24', 'order24', 11000, "13:02:20"), ('payment25', 'order25', 32000, "13:14:20"), ('payment26', 'order26', 43000, "13:40:29"), ('payment27', 'order27', 29000, "13:40:33"), ('payment28', 'order28', 43000, "13:40:29"), ('payment29', 'order29', 29000, "13:40:33"), ('payment30', 'order30', 12000, "13:40:20"), ('payment31', 'order31', 10000, "13:29:30"), ('payment32', 'order32', 31000, "13:49:20"), ('payment33', 'order33', 39000, "13:38:20"), ('payment34', 'order34', 16500, "13:30:20"), ('payment35', 'order35', 22000, "13:49:20"), ('payment36', 'order36', 22500, "13:20:40"), ('payment37', 'order37', 34000, "13:14:20"), ('payment38', 'order38', 11000, "13:50:20"), ('payment39', 'order39', 12000, "13:37:20"), ('payment40', 'order40', 30000, "13:40:20"), ('payment41', 'order41', 21300, "13:42:40"), ('payment42', 'order42', 20300, "13:02:40"), ('payment43', 'order43', 10000, "14:20:00"), ('payment44', 'order44', 10500, "13:30:40"), ('payment45', 'order45', 19000, "14:00:30"), ('payment46', 'order46', 18000, "14:15:00"), ('payment47', 'order47', 17300, "13:50:00"), ('payment48', 'order48', 35000, "13:40:00"), ('payment49', 'order49', 21000, "12:52:30"), ('payment50', 'order50', 20000, "13:25:10"), ('payment51', 'order51', 30000, "13:30:40"), ('payment52', 'order52', 20000, "13:45:20"), ('payment53', 'order53', 19000, "13:25:00"), ('payment54', 'order54', 18000, "13:15:00"), ('payment55', 'order55', 18000, "13:10:20"), ('payment56', 'order56', 18000, "13:10:20"), ('payment57', 'order57', 18000, "13:10:20"), ('payment58', 'order58', 18000, "13:10:20"), ('payment59', 'order59', 18000, "13:10:20"), ('payment60', 'order60', 18000, "13:10:20"), -- SELECT FROM Payments; </pre>	<pre> mysql&gt; select * from payments; +-----+-----+-----+-----+   payment_id   order_id   amount   payment_time   +-----+-----+-----+-----+   payment1   order1   11000   13:30:00     payment10   order10   21000   13:30:00     payment11   order11   11000   13:50:00     payment12   order12   11000   13:21:40     payment13   order13   51000   13:42:00     payment14   order14   14000   13:17:00     payment15   order15   22500   13:26:00     payment16   order16   31500   12:58:00     payment17   order17   40000   12:30:00     payment18   order18   30200   12:20:00     payment19   order19   15000   12:45:30     payment2   order2   12000   13:00:00     payment20   order20   15000   12:50:30     payment21   order21   15000   12:53:30     payment22   order22   12000   12:56:30     payment23   order23   10000   13:00:00     payment24   order24   11000   13:02:20     payment25   order25   32000   13:14:20     payment26   order26   43000   13:40:29     payment27   order27   29000   13:40:33     payment28   order28   11000   13:20:30     payment29   order29   45000   13:35:20     payment30   order30   12000   13:40:20     payment31   order31   10000   13:29:30     payment32   order32   31000   13:49:20     payment33   order33   39000   13:38:20     payment34   order34   16500   13:30:20     payment35   order35   22000   13:49:20     payment36   order36   22500   13:20:40     payment37   order37   34000   13:14:20     payment38   order38   11000   13:50:20     payment39   order39   12000   13:37:20     payment40   order40   10000   14:00:30     payment41   order41   21300   13:42:40     payment42   order42   20300   13:02:40     payment43   order43   30000   14:20:00     payment44   order44   10500   13:30:40     payment45   order45   19000   14:00:30     payment46   order46   18000   14:15:00     payment47   order47   17300   13:50:00     payment48   order48   35000   13:40:00     payment49   order49   21000   12:52:30     payment50   order50   20000   13:25:10     payment51   order51   30000   13:30:40     payment52   order52   20000   13:45:20     payment53   order53   19000   13:25:00     payment54   order54   18000   13:15:00     payment55   order55   18000   13:10:20     payment56   order56   18000   13:10:20     payment57   order57   18000   13:10:20     payment58   order58   18000   13:10:20     payment59   order59   18000   13:10:20     payment60   order60   18000   13:10:20   </pre>

## <Reservations table> - 50 records

query	result
<pre> INSERT INTO Reservations (reservation_id, customer_id, restaurant_id, reservation_time, num_guests) VALUES ('reservation1', 'customer1', 'restaurant1', "12:10:00"), ('reservation1', 'customer1', 'restaurant1', "12:10:00"), ('reservation1', 'customer1', 'restaurant1', "12:10:00"), ('reservation2', 'customer2', 'restaurant2', "12:25:00"), ('reservation2', 'customer2', 'restaurant2', "12:25:00"), ('reservation2', 'customer2', 'restaurant2', "12:25:00"), ('reservation3', 'customer3', 'restaurant3', "12:35:00"), ('reservation3', 'customer3', 'restaurant3', "12:35:00"), ('reservation3', 'customer3', 'restaurant3', "12:35:00"), ('reservation4', 'customer4', 'restaurant4', "12:30:00"), ('reservation4', 'customer4', 'restaurant4', "12:30:00"), ('reservation4', 'customer4', 'restaurant4', "12:30:00"), ('reservation5', 'customer5', 'restaurant5', "12:40:00"), ('reservation5', 'customer5', 'restaurant5', "12:40:00"), ('reservation5', 'customer5', 'restaurant5', "12:40:00"), ('reservation6', 'customer6', 'restaurant6', "12:40:00"), ('reservation6', 'customer6', 'restaurant6', "12:40:00"), ('reservation6', 'customer6', 'restaurant6', "12:40:00"), ('reservation7', 'customer7', 'restaurant7', "12:45:00"), ('reservation7', 'customer7', 'restaurant7', "12:45:00"), ('reservation7', 'customer7', 'restaurant7', "12:45:00"), ('reservation8', 'customer8', 'restaurant8', "12:50:00"), ('reservation8', 'customer8', 'restaurant8', "12:50:00"), ('reservation8', 'customer8', 'restaurant8', "12:50:00"), ('reservation9', 'customer9', 'restaurant9', "12:55:00"), ('reservation9', 'customer9', 'restaurant9', "12:55:00"), ('reservation9', 'customer9', 'restaurant9', "12:55:00"), ('reservation10', 'customer10', 'restaurant10', "12:55:00"), ('reservation10', 'customer10', 'restaurant10', "12:55:00"), ('reservation10', 'customer10', 'restaurant10', "12:55:00"), ('reservation11', 'customer11', 'restaurant11', "12:55:00"), ('reservation11', 'customer11', 'restaurant11', "12:55:00"), ('reservation11', 'customer11', 'restaurant11', "12:55:00"), ('reservation12', 'customer12', 'restaurant12', "12:55:00"), ('reservation12', 'customer12', 'restaurant12', "12:55:00"), ('reservation12', 'customer12', 'restaurant12', "12:55:00"), ('reservation13', 'customer13', 'restaurant13', "12:55:00"), ('reservation13', 'customer13', 'restaurant13', "12:55:00"), ('reservation13', 'customer13', 'restaurant13', "12:55:00"), ('reservation14', 'customer14', 'restaurant14', "12:55:00"), ('reservation14', 'customer14', 'restaurant14', "12:55:00"), ('reservation14', 'customer14', 'restaurant14', "12:55:00"), ('reservation15', 'customer15', 'restaurant15', "12:55:00"), ('reservation15', 'customer15', 'restaurant15', "12:55:00"), ('reservation15', 'customer15', 'restaurant15', "12:55:00"), ('reservation16', 'customer16', 'restaurant16', "12:55:00"), ('reservation16', 'customer16', 'restaurant16', "12:55:00"), ('reservation16', 'customer16', 'restaurant16', "12:55:00"), ('reservation17', 'customer17', 'restaurant17', "12:55:00"), ('reservation17', 'customer17', 'restaurant17', "12:55:00"), ('reservation17', 'customer17', 'restaurant17', "12:55:00"), ('reservation18', 'customer18', 'restaurant18', "12:55:00"), ('reservation18', 'customer18', 'restaurant18', "12:55:00"), ('reservation18', 'customer18', 'restaurant18', "12:55:00"), ('reservation19', 'customer19', 'restaurant19', "12:55:00"), ('reservation19', 'customer19', 'restaurant19', "12:55:00"), ('reservation19', 'customer19', 'restaurant19', "12:55:00"), ('reservation20', 'customer20', 'restaurant20', "12:55:00"), ('reservation20', 'customer20', 'restaurant20', "12:55:00"), ('reservation20', 'customer20', 'restaurant20', "12:55:00"), ('reservation21', 'customer21', 'restaurant21', "12:55:00"), ('reservation21', 'customer21', 'restaurant21', "12:55:00"), ('reservation21', 'customer21', 'restaurant21', "12:55:00"), ('reservation22', 'customer22', 'restaurant22', "12:55:00"), ('reservation22', 'customer22', 'restaurant22', "12:55:00"), ('reservation22', 'customer22', 'restaurant22', "12:55:00"), ('reservation23', 'customer23', 'restaurant23', "12:55:00"), ('reservation23', 'customer23', 'restaurant23', "12:55:00"), ('reservation23', 'customer23', 'restaurant23', "12:55:00"), ('reservation24', 'customer24', 'restaurant24', "13:00:00"), ('reservation24', 'customer24', 'restaurant24', "13:00:00"), ('reservation24', 'customer24', 'restaurant24', "13:00:00"), ('reservation25', 'customer25', 'restaurant25', "13:10:00"), ('reservation25', 'customer25', 'restaurant25', "13:10:00"), ('reservation25', 'customer25', 'restaurant25', "13:10:00"), -- SELECT FROM Reservations; </pre>	<pre> mysql&gt; select * from reservations; +-----+-----+-----+-----+   reservation_id   customer_id   restaurant_id   reservation_time   num_guests   +-----+-----+-----+-----+   reservation1   customer1   restaurant1   12:10:00   2     reservation2   customer10   restaurant8   12:25:00   4     reservation3   customer11   restaurant9   12:35:00   3     reservation4   customer12   restaurant8   12:30:00   2     reservation5   customer13   restaurant8   12:30:00   2     reservation6   customer14   restaurant10   12:35:00   2     reservation7   customer15   restaurant10   12:40:00   3     reservation8   customer16   restaurant10   12:40:00   3     reservation9   customer17   restaurant10   12:45:00   2     reservation10   customer18   restaurant11   12:45:00   4     reservation11   customer19   restaurant2   12:00:00   3     reservation12   customer20   restaurant12   12:50:00   3     reservation13   customer21   restaurant13   12:55:00   3     reservation14   customer22   restaurant13   12:55:00   2     reservation15   customer23   restaurant7   12:25:00   2     reservation16   customer24   restaurant14   13:00:00   4     reservation17   customer25   restaurant15   13:10:00   1   </pre>

reservation26	customer26	restaurant15	13:10:00	3
reservation27	customer27	restaurant15	13:15:00	2
reservation28	customer28	restaurant15	13:15:00	2
reservation29	customer29	restaurant20	13:20:00	4
reservation30	customer30	restaurant2	12:00:00	3
reservation31	customer31	restaurant16	13:20:00	3
reservation32	customer32	restaurant17	13:25:00	1
reservation33	customer33	restaurant18	13:25:00	2
reservation34	customer34	restaurant19	13:30:00	3
reservation35	customer35	restaurant20	13:35:00	2
reservation36	customer36	restaurant1	13:35:00	1
reservation37	customer37	restaurant2	13:40:00	2
reservation38	customer38	restaurant3	13:40:00	3
reservation39	customer39	restaurant4	13:45:00	5
reservation40	customer40	restaurant2	12:00:00	3
reservation41	customer41	restaurant5	13:45:00	4
reservation42	customer42	restaurant6	13:50:00	6
reservation43	customer43	restaurant8	13:55:00	3
reservation44	customer44	restaurant9	13:55:00	3
reservation45	customer45	restaurant1	14:00:00	2
reservation46	customer46	restaurant1	14:00:00	2
reservation47	customer47	restaurant15	14:05:00	4
reservation48	customer48	restaurant13	14:05:00	4
reservation49	customer49	restaurant18	14:10:00	2
reservation5	customer5	restaurant5	12:15:00	2
reservation50	customer50	restaurant18	14:10:00	2
reservation6	customer6	restaurant5	12:15:00	3
reservation7	customer7	restaurant6	12:20:00	3
reservation8	customer8	restaurant6	12:20:00	3
reservation9	customer9	restaurant7	12:25:00	2

50 rows in set (0.00 sec)

<Staff table> - 50 records

query	result																																																																																																																																																																																																																								
<pre>INSERT INTO Staff (staff_id, restaurant_id, staff_name, staff_number) VALUES ('S01', 'restaurant1', 'Alan Turing', '010-0100-0000'), ('S02', 'restaurant5', 'Ada Lovelace', '010-0100-0000'), ('S03', 'restaurant6', 'Charles Babbage', '010-0300-0000'), ('S04', 'restaurant7', 'Stephen Hawking', '010-0400-0000'), ('S05', 'restaurant20', 'Richard Thaler', '010-0500-0000'), ('S06', 'restaurant19', 'Angela Duckworth', '010-0600-0000'), ('S07', 'restaurant13', 'Noam Chomsky', '010-0700-0000'), ('S08', 'restaurant5', 'Scott Aaronson', '010-0800-0000'), ('S09', 'restaurant6', 'Yuval Noah Harari', '010-0900-0000'), ('S10', 'restaurant7', 'Esther Duflo', '010-1000-0000'), ('S11', 'restaurant4', 'Richard Feynman', '010-1100-0000'), ('S12', 'restaurant15', 'Charles Darwin', '010-1200-0000'), ('S13', 'restaurant16', 'Michelle Simmons', '010-1300-0000'), ('S14', 'restaurant4', 'Jennifer Doudna', '010-1400-0000'), ('S15', 'restaurant12', 'Bill Gates', '010-1500-0000'), ('S16', 'restaurant20', 'Joyce Reynolds', '010-1600-0000'), ('S17', 'restaurant11', 'Larry Page', '010-1700-0000'), ('S18', 'restaurant5', 'Elon Musk', '010-1800-0000'), ('S19', 'restaurant7', 'Judith Butler', '010-1900-0000'), ('S20', 'restaurant2', 'Leonard Hofstadter', '010-2000-0000'), ('S21', 'restaurant3', 'Sheldon Cooper', '010-2100-0000'), ('S22', 'restaurant8', 'Howard Wolowitz', '010-2200-0000'), ('S23', 'restaurant19', 'Albert Einstein', '010-2300-0000'), ('S24', 'restaurant17', 'Isaac Newton', '010-2400-0000'), ('S25', 'restaurant9', 'Thomas Edison', '010-2500-0000'), ('S25', 'restaurant9', 'Thomas Edison', '010-2500-0000'), ('S26', 'restaurant1', 'Justin Bieber', '010-2600-0000'), ('S27', 'restaurant5', 'BLACKPINK', '010-2700-0000'), ('S28', 'restaurant6', 'Ed Sheeran', '010-2800-0000'), ('S29', 'restaurant7', 'Eminem', '010-2900-0000'), ('S30', 'restaurant20', 'Ariana Grande', '010-3000-0000'), ('S31', 'restaurant10', 'BTS', '010-3100-0000'), ('S32', 'restaurant15', 'Taylor Swift', '010-3200-0000'), ('S33', 'restaurant13', 'Katy Perry', '010-3300-0000'), ('S34', 'restaurant6', 'Rihanna', '010-3400-0000'), ('S35', 'restaurant7', 'Billie Eilish', '010-3500-0000'), ('S36', 'restaurant4', 'One Direction', '010-3600-0000'), ('S37', 'restaurant15', 'Maroon 5', '010-3700-0000'), ('S38', 'restaurant16', 'Daddy Yankee', '010-3800-0000'), ('S39', 'restaurant4', 'Ozuna', '010-3900-0000'), ('S40', 'restaurant12', 'J Balvin', '010-4000-0000'), ('S41', 'restaurant20', 'Bruno Mars', '010-4100-0000'), ('S42', 'restaurant5', 'Luis Fonsi', '010-4200-0000'), ('S43', 'restaurant7', 'Selena Gomez', '010-4300-0000'), ('S44', 'restaurant2', 'Shawn Mendes', '010-4400-0000'), ('S45', 'restaurant2', 'Wiz Khalifa', '010-4500-0000'), ('S46', 'restaurant3', 'Adele', '010-4600-0000'), ('S47', 'restaurant8', 'Beyonce', '010-4700-0000'), ('S48', 'restaurant19', 'Nicky Minaj', '010-4800-0000'), ('S49', 'restaurant17', 'The Weekend', '010-4900-0000'), ('S50', 'restaurant9', 'Enrique Iglesias', '010-5000-0000');</pre>	<pre>mysql&gt; select * from staff;</pre> <table border="1"> <thead> <tr> <th>staff_id</th><th>restaurant_id</th><th>staff_name</th><th>staff_number</th></tr> </thead> <tbody> <tr><td>S01</td><td>restaurant1</td><td>Alan Turing</td><td>010-0100-0000</td></tr> <tr><td>S02</td><td>restaurant5</td><td>Ada Lovelace</td><td>010-0200-0000</td></tr> <tr><td>S03</td><td>restaurant6</td><td>Charles Babbage</td><td>010-0300-0000</td></tr> <tr><td>S04</td><td>restaurant7</td><td>Stephen Hawking</td><td>010-0400-0000</td></tr> <tr><td>S05</td><td>restaurant20</td><td>Richard Thaler</td><td>010-0500-0000</td></tr> <tr><td>S06</td><td>restaurant10</td><td>Angela Duckworth</td><td>010-0600-0000</td></tr> <tr><td>S07</td><td>restaurant13</td><td>Noam Chomsky</td><td>010-0700-0000</td></tr> <tr><td>S08</td><td>restaurant5</td><td>Scott Aaronson</td><td>010-0800-0000</td></tr> <tr><td>S09</td><td>restaurant6</td><td>Yuval Noah Harari</td><td>010-0900-0000</td></tr> <tr><td>S10</td><td>restaurant7</td><td>Esther Duflo</td><td>010-1000-0000</td></tr> <tr><td>S11</td><td>restaurant4</td><td>Richard Feynman</td><td>010-1100-0000</td></tr> <tr><td>S12</td><td>restaurant15</td><td>Charles Darwin</td><td>010-1200-0000</td></tr> <tr><td>S13</td><td>restaurant16</td><td>Michelle Simmons</td><td>010-1300-0000</td></tr> <tr><td>S14</td><td>restaurant4</td><td>Jennifer Doudna</td><td>010-1400-0000</td></tr> <tr><td>S15</td><td>restaurant12</td><td>Bill Gates</td><td>010-1500-0000</td></tr> <tr><td>S16</td><td>restaurant20</td><td>Joyce Reynolds</td><td>010-1600-0000</td></tr> <tr><td>S17</td><td>restaurant11</td><td>Larry Page</td><td>010-1700-0000</td></tr> <tr><td>S18</td><td>restaurant5</td><td>Elon Musk</td><td>010-1800-0000</td></tr> <tr><td>S19</td><td>restaurant7</td><td>Judith Butler</td><td>010-1900-0000</td></tr> <tr><td>S20</td><td>restaurant2</td><td>Leonard Hofstadter</td><td>010-2000-0000</td></tr> <tr><td>S21</td><td>restaurant3</td><td>Sheldon Cooper</td><td>010-2100-0000</td></tr> <tr><td>S22</td><td>restaurant8</td><td>Howard Wolowitz</td><td>010-2200-0000</td></tr> <tr><td>S23</td><td>restaurant19</td><td>Albert Einstein</td><td>010-2300-0000</td></tr> <tr><td>S24</td><td>restaurant17</td><td>Isaac Newton</td><td>010-2400-0000</td></tr> <tr><td>S25</td><td>restaurant9</td><td>Thomas Edison</td><td>010-2500-0000</td></tr> <tr><td>S24</td><td>restaurant11</td><td>Isaac Newton</td><td>010-2400-0000</td></tr> <tr><td>S25</td><td>restaurant9</td><td>Thomas Edison</td><td>010-2500-0000</td></tr> <tr><td>S26</td><td>restaurant1</td><td>Justin Bieber</td><td>010-2600-0000</td></tr> <tr><td>S27</td><td>restaurant5</td><td>BLACKPINK</td><td>010-2700-0000</td></tr> <tr><td>S28</td><td>restaurant6</td><td>Ed Sheeran</td><td>010-2800-0000</td></tr> <tr><td>S29</td><td>restaurant7</td><td>Eminem</td><td>010-2900-0000</td></tr> <tr><td>S30</td><td>restaurant20</td><td>Ariana Grande</td><td>010-3000-0000</td></tr> <tr><td>S31</td><td>restaurant10</td><td>BTS</td><td>010-3100-0000</td></tr> <tr><td>S32</td><td>restaurant13</td><td>Taylor Swift</td><td>010-3200-0000</td></tr> <tr><td>S33</td><td>restaurant6</td><td>Katy Perry</td><td>010-3300-0000</td></tr> <tr><td>S34</td><td>restaurant7</td><td>Rihanna</td><td>010-3400-0000</td></tr> <tr><td>S35</td><td>restaurant1</td><td>Billie Eilish</td><td>010-3500-0000</td></tr> <tr><td>S36</td><td>restaurant4</td><td>One Direction</td><td>010-3600-0000</td></tr> <tr><td>S37</td><td>restaurant15</td><td>Maroon 5</td><td>010-3700-0000</td></tr> <tr><td>S38</td><td>restaurant16</td><td>Daddy Yankee</td><td>010-3800-0000</td></tr> <tr><td>S39</td><td>restaurant4</td><td>Ozuna</td><td>010-3900-0000</td></tr> <tr><td>S40</td><td>restaurant12</td><td>J Balvin</td><td>010-4000-0000</td></tr> <tr><td>S41</td><td>restaurant20</td><td>Bruno Mars</td><td>010-4100-0000</td></tr> <tr><td>S42</td><td>restaurant11</td><td>Luis Fonsi</td><td>010-4200-0000</td></tr> <tr><td>S43</td><td>restaurant5</td><td>Selena Gomez</td><td>010-4300-0000</td></tr> <tr><td>S44</td><td>restaurant7</td><td>Shawn Mendes</td><td>010-4400-0000</td></tr> <tr><td>S45</td><td>restaurant2</td><td>Wiz Khalifa</td><td>010-4500-0000</td></tr> <tr><td>S46</td><td>restaurant3</td><td>Adele</td><td>010-4600-0000</td></tr> <tr><td>S47</td><td>restaurant8</td><td>Beyonce</td><td>010-4700-0000</td></tr> <tr><td>S48</td><td>restaurant19</td><td>Nicky Minaj</td><td>010-4800-0000</td></tr> <tr><td>S49</td><td>restaurant17</td><td>The Weekend</td><td>010-4900-0000</td></tr> <tr><td>S50</td><td>restaurant9</td><td>Enrique Iglesias</td><td>010-5000-0000</td></tr> </tbody> </table> <p>50 rows in set (0.01 sec)</p>	staff_id	restaurant_id	staff_name	staff_number	S01	restaurant1	Alan Turing	010-0100-0000	S02	restaurant5	Ada Lovelace	010-0200-0000	S03	restaurant6	Charles Babbage	010-0300-0000	S04	restaurant7	Stephen Hawking	010-0400-0000	S05	restaurant20	Richard Thaler	010-0500-0000	S06	restaurant10	Angela Duckworth	010-0600-0000	S07	restaurant13	Noam Chomsky	010-0700-0000	S08	restaurant5	Scott Aaronson	010-0800-0000	S09	restaurant6	Yuval Noah Harari	010-0900-0000	S10	restaurant7	Esther Duflo	010-1000-0000	S11	restaurant4	Richard Feynman	010-1100-0000	S12	restaurant15	Charles Darwin	010-1200-0000	S13	restaurant16	Michelle Simmons	010-1300-0000	S14	restaurant4	Jennifer Doudna	010-1400-0000	S15	restaurant12	Bill Gates	010-1500-0000	S16	restaurant20	Joyce Reynolds	010-1600-0000	S17	restaurant11	Larry Page	010-1700-0000	S18	restaurant5	Elon Musk	010-1800-0000	S19	restaurant7	Judith Butler	010-1900-0000	S20	restaurant2	Leonard Hofstadter	010-2000-0000	S21	restaurant3	Sheldon Cooper	010-2100-0000	S22	restaurant8	Howard Wolowitz	010-2200-0000	S23	restaurant19	Albert Einstein	010-2300-0000	S24	restaurant17	Isaac Newton	010-2400-0000	S25	restaurant9	Thomas Edison	010-2500-0000	S24	restaurant11	Isaac Newton	010-2400-0000	S25	restaurant9	Thomas Edison	010-2500-0000	S26	restaurant1	Justin Bieber	010-2600-0000	S27	restaurant5	BLACKPINK	010-2700-0000	S28	restaurant6	Ed Sheeran	010-2800-0000	S29	restaurant7	Eminem	010-2900-0000	S30	restaurant20	Ariana Grande	010-3000-0000	S31	restaurant10	BTS	010-3100-0000	S32	restaurant13	Taylor Swift	010-3200-0000	S33	restaurant6	Katy Perry	010-3300-0000	S34	restaurant7	Rihanna	010-3400-0000	S35	restaurant1	Billie Eilish	010-3500-0000	S36	restaurant4	One Direction	010-3600-0000	S37	restaurant15	Maroon 5	010-3700-0000	S38	restaurant16	Daddy Yankee	010-3800-0000	S39	restaurant4	Ozuna	010-3900-0000	S40	restaurant12	J Balvin	010-4000-0000	S41	restaurant20	Bruno Mars	010-4100-0000	S42	restaurant11	Luis Fonsi	010-4200-0000	S43	restaurant5	Selena Gomez	010-4300-0000	S44	restaurant7	Shawn Mendes	010-4400-0000	S45	restaurant2	Wiz Khalifa	010-4500-0000	S46	restaurant3	Adele	010-4600-0000	S47	restaurant8	Beyonce	010-4700-0000	S48	restaurant19	Nicky 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<Category table> - 20 records

query	result
<pre>INSERT INTO Category (category_id, category_name, restaurant_id) VALUES ('category1', '중식', 'restaurant1'), ('category2', '중식', 'restaurant2'), ('category3', '한식', 'restaurant3'), ('category4', '한식', 'restaurant4'), ('category5', '한식', 'restaurant5'), ('category6', '한식', 'restaurant6'), ('category7', '분식', 'restaurant7'), ('category8', '일식', 'restaurant8'), ('category9', '일식', 'restaurant9'), ('category10', '중식', 'restaurant10'), ('category11', '중식', 'restaurant11'), ('category12', '한식', 'restaurant12'), ('category13', '한식', 'restaurant13'), ('category14', '일식', 'restaurant14'), ('category15', '분식', 'restaurant15'), ('category16', '분식', 'restaurant16'), ('category17', '한식', 'restaurant17'), ('category18', '중식', 'restaurant18'), ('category19', '한식', 'restaurant19'), ('category20', '분식', 'restaurant20');</pre>	<pre>mysql&gt; select * from category; +-----+-----+-----+   category_id   category_name   restaurant_id   +-----+-----+-----+   category1     중식            restaurant1      category10    중식            restaurant10     category11    중식            restaurant11     category12    한식            restaurant12     category13    한식            restaurant13     category14    일식            restaurant14     category15    분식            restaurant15     category16    분식            restaurant16     category17    한식            restaurant17     category18    중식            restaurant18     category19    한식            restaurant19     category20    양식            restaurant20     category2     양식            restaurant2      category3     분식            restaurant3      category4     양식            restaurant4      category5     양식            restaurant5      category6     한식            restaurant6      category7     분식            restaurant7      category8     일식            restaurant8      category9     일식            restaurant9    +-----+-----+-----+ 20 rows in set (0.00 sec)</pre>

<Ranking table> - 20 records

query	result
<pre>INSERT INTO Ranking (ranking_id, restaurant_id, rank_date, score) VALUES ('rank1', 'restaurant4', "2023-09-13", 1), ('rank2', 'restaurant17', "2023-08-25", 4), ('rank3', 'restaurant1', "2020-03-01", 4), ('rank4', 'restaurant2', "2020-04-12", 5), ('rank5', 'restaurant20', "2021-09-27", 4), ('rank6', 'restaurant8', "2021-01-17", 4), ('rank7', 'restaurant3', "2021-02-04", 3), ('rank8', 'restaurant13', "2020-06-24", 1), ('rank9', 'restaurant11', "2023-12-26", 3), ('rank10', 'restaurant5', "2023-07-14", 4), ('rank11', 'restaurant19', "2021-12-13", 3), ('rank12', 'restaurant7', "2021-03-29", 3), ('rank13', 'restaurant14', "2020-06-21", 3), ('rank14', 'restaurant12', "2020-10-12", 4), ('rank15', 'restaurant6', "2020-09-08", 1), ('rank16', 'restaurant9', "2023-10-30", 3), ('rank17', 'restaurant15', "2022-09-24", 4), ('rank18', 'restaurant18', "2022-11-23", 4), ('rank19', 'restaurant16', "2023-06-09", 1), ('rank20', 'restaurant17', "2023-08-25", 4), ('rank21', 'restaurant10', "2021-09-19", 3), ('rank22', 'restaurant3', "2020-03-01", 4), ('rank23', 'restaurant2', "2020-04-12", 5), ('rank24', 'restaurant20', "2021-09-27", 4), ('rank25', 'restaurant8', "2021-01-17", 4), ('rank26', 'restaurant3', "2021-02-04", 3), ('rank27', 'restaurant13', "2020-06-24", 1), ('rank28', 'restaurant11', "2023-12-26", 3);</pre>	<pre>mysql&gt; select * from ranking; +-----+-----+-----+-----+   ranking_id   restaurant_id   rank_date   score   +-----+-----+-----+-----+   rank1        restaurant4    2023-09-13   1          rank10       restaurant5    2023-07-14   4          rank11       restaurant19   2021-12-13   3          rank12       restaurant7    2021-03-29   3          rank13       restaurant14   2020-06-21   3          rank14       restaurant12   2020-10-12   4          rank15       restaurant6    2020-09-08   1          rank16       restaurant9    2023-10-30   3          rank17       restaurant15   2022-09-24   4          rank18       restaurant18   2022-11-23   4          rank19       restaurant16   2023-06-09   1          rank20       restaurant17   2023-08-25   4          rank21       restaurant10   2021-09-19   3          rank22       restaurant3    2020-03-01   4          rank23       restaurant2    2020-04-12   5          rank24       restaurant20   2021-09-27   4          rank25       restaurant8    2021-01-17   4          rank26       restaurant3    2021-02-04   3          rank27       restaurant13   2020-06-24   1          rank28       restaurant11   2023-12-26   3        +-----+-----+-----+-----+ 20 rows in set (0.00 sec)</pre>

## <Inventory table> - 50 records

query	result																																																																																																																																																																																																																																																					
<pre>INSERT INTO Inventory (inventory_id, restaurant_id, menu_id, item_name, quantity) VALUES ('Inventory1', 'restaurant1', 'menu1', '마라샹궈', 18), ('Inventory2', 'restaurant1', 'menu21', '포르\e{angolo}', 39), ('Inventory3', 'restaurant2', 'menu2', '프리치즈볼트', 42), ('Inventory4', 'restaurant2', 'menu22', '한우스테이크볼트', 77), ('Inventory5', 'restaurant3', 'menu3', '훠궈 보쌈', 91), ('Inventory6', 'restaurant3', 'menu23', '소불고기 보쌈', 25), ('Inventory7', 'restaurant4', 'menu4', '훠궈보쌈', 54), ('Inventory8', 'restaurant4', 'menu24', '마파디네', 49), ('Inventory9', 'restaurant5', 'menu5', '된장찌개', 23), ('Inventory10', 'restaurant5', 'menu25', '비빔국밥', 66), ('Inventory11', 'restaurant6', 'menu6', '불고기구이제이스', 57), ('Inventory12', 'restaurant6', 'menu26', '사포년 혼까스', 39), ('Inventory13', 'restaurant7', 'menu7', '순두부', 40), ('Inventory14', 'restaurant7', 'menu27', '김치밥', 37), ('Inventory15', 'restaurant8', 'menu8', '가페', 41), ('Inventory16', 'restaurant8', 'menu28', '크리미', 71), ('Inventory17', 'restaurant9', 'menu9', '유자와 쟁삼', 32), ('Inventory18', 'restaurant9', 'menu29', '치즈파스타', 86), ('Inventory19', 'restaurant10', 'menu10', '사천회오리정육식당', 29), ('Inventory20', 'restaurant10', 'menu30', '새우족발', 99), ('Inventory21', 'restaurant10', 'menu41', '사천꿔.KeyPress', 79), ('Inventory22', 'restaurant11', 'menu42', '스모브', 54), ('Inventory23', 'restaurant11', 'menu11', '环境污染', 68), ('Inventory24', 'restaurant11', 'menu42', '环境污染', 97), ('Inventory25', 'restaurant12', 'menu12', '环境污染', 97), ('Inventory26', 'restaurant12', 'menu32', '环境污染', 51), ('Inventory27', 'restaurant12', 'menu43', '환경유지법', 46), ('Inventory28', 'restaurant13', 'menu31', '환경유지법', 32), ('Inventory29', 'restaurant13', 'menu33', '환경유지법', 68), ('Inventory30', 'restaurant13', 'menu44', '환경유지법', 3), ('Inventory31', 'restaurant14', 'menu14', '생면에 유부초밥', 28), ('Inventory32', 'restaurant14', 'menu42', '环境污染', 72), ('Inventory33', 'restaurant14', 'menu45', '삶은 크리미 아보카도', 48), ('Inventory34', 'restaurant15', 'menu15', '环境污染', 73), ('Inventory35', 'restaurant15', 'menu35', '환경유지법', 17), ('Inventory36', 'restaurant15', 'menu46', '환경유지법', 3), ('Inventory37', 'restaurant16', 'menu16', '산의풀방법', 30), ('Inventory38', 'restaurant16', 'menu36', '치즈파라미', 95), ('Inventory39', 'restaurant16', 'menu47', '풀방법', 59), ('Inventory40', 'restaurant17', 'menu17', '닭발 10분', 88), ('Inventory41', 'restaurant17', 'menu37', '계란말이', 70), ('Inventory42', 'restaurant17', 'menu48', '후루울랄랄', 20), ('Inventory43', 'restaurant18', 'menu18', '자진 라스', 95), ('Inventory44', 'restaurant18', 'menu38', '자진 라스 복', 45), ('Inventory45', 'restaurant18', 'menu49', '상회유자주', 78), ('Inventory46', 'restaurant19', 'menu19', '环境污染', 94), ('Inventory47', 'restaurant19', 'menu39', '황태방법', 43), ('Inventory48', 'restaurant19', 'menu50', '环境污染', 29), ('Inventory49', 'restaurant20', 'menu20', '국식 국물 제주 비빔 국수', 52), ('Inventory50', 'restaurant20', 'menu40', '환경로 아버이 군다', 25);</pre>	<pre>mysql&gt; select * from Inventory;</pre> <table border="1"> <thead> <tr> <th>inventory_id</th><th>restaurant_id</th><th>menu_id</th><th>item_name</th><th>quantity</th></tr> </thead> <tbody> <tr><td>inventory1</td><td>restaurant1</td><td>menu1</td><td>마라샹궈</td><td>18</td></tr> <tr><td>inventory10</td><td>restaurant5</td><td>menu25</td><td>반달 치킨 마카니</td><td>66</td></tr> <tr><td>inventory11</td><td>restaurant6</td><td>menu26</td><td>불고기제이제이스</td><td>57</td></tr> <tr><td>inventory12</td><td>restaurant6</td><td>menu25</td><td>사모년 혼까스</td><td>39</td></tr> <tr><td>inventory13</td><td>restaurant7</td><td>menu7</td><td>순대떡볶이</td><td>40</td></tr> <tr><td>inventory14</td><td>restaurant7</td><td>menu27</td><td>정치밥선드</td><td>37</td></tr> <tr><td>inventory15</td><td>restaurant8</td><td>menu8</td><td>가케</td><td>41</td></tr> <tr><td>inventory16</td><td>restaurant8</td><td>menu28</td><td>չիկի</td><td>71</td></tr> <tr><td>inventory17</td><td>restaurant9</td><td>menu9</td><td>유아케 등심</td><td>32</td></tr> 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혼까스	39	inventory13	restaurant7	menu7	순대떡볶이	40	inventory14	restaurant7	menu27	정치밥선드	37	inventory15	restaurant8	menu8	가케	41	inventory16	restaurant8	menu28	չիկի	71	inventory17	restaurant9	menu9	유아케 등심	32	inventory18	restaurant9	menu29	치즈돈까스	86	inventory19	restaurant10	menu10	사천해물자장 도식면	29	inventory20	restaurant10	menu30	쓰촨장우동탕	39	inventory21	restaurant11	menu11	사천꿔.KeyPress 우	73	inventory22	restaurant11	menu21	环境污染	54	inventory23	restaurant11	menu31	环境污染	68	inventory24	restaurant11	menu42	环境污染	97	inventory25	restaurant12	menu12	비건김밥	97	inventory26	restaurant12	menu33	环境污染	51	inventory27	restaurant12	menu43	环境污染	46	inventory28	restaurant13	menu13	생연어샐러드	8	inventory29	restaurant13	menu33	생연어샐러드	77	inventory30	restaurant13	menu2	리코타치 조샐러드	42	inventory31	restaurant13	menu33	环境污染	3	inventory32	restaurant13	menu14	环境污染	29	inventory33	restaurant14	menu34	环境污染	72	inventory34	restaurant14	menu45	环境污染	48	inventory35	restaurant15	menu15	环境污染	73	inventory36	restaurant15	menu46	环境污染	3	inventory37	restaurant16	menu16	环境污染	30	inventory38	restaurant16	menu36	环境污染	95	inventory39	restaurant16	menu47	环境污染	59	inventory40	restaurant17	menu22	环境污染	77	inventory41	restaurant17	menu37	环境污染	11	inventory42	restaurant17	menu44	环境污染	70	inventory43	restaurant18	menu44	环境污染	20	inventory44	restaurant18	menu18	环境污染	95	inventory45	restaurant18	menu49	环境污染	45	inventory46	restaurant19	menu19	环境污染	78	inventory47	restaurant19	menu38	环境污染	94	inventory48	restaurant19	menu50	环境污染	43	inventory49	restaurant20	menu20	环境污染	29	inventory50	restaurant20	menu40	环境污染	52	inventory51	restaurant20	menu21	环境污染	91	inventory52	restaurant20	menu20	环境污染	25	inventory53	restaurant3	menu23	环境污染	25	inventory54	restaurant4	menu4	环境污染	54	inventory55	restaurant4	menu24	环境污染	49	inventory56	restaurant5	menu5	环境污染	2
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## <Discount table> - 20 records

query	result																																																																																																																								
<pre>INSERT INTO Discount (discount_id, restaurant_id, discount_percentage, description, start_date, end_date) VALUES ('discount1', 'restaurant1', 0, '% 할인', '2021-05-05', '2021-05-07'), ('discount2', 'restaurant2', 10, '10% 할인', '2023-10-09', '2023-12-06'), ('discount3', 'restaurant3', 0, '% 할인', '2024-12-10', '2024-12-16'), ('discount4', 'restaurant4', 0, '% 할인', '2023-04-10', '2023-04-16'), ('discount5', 'restaurant5', 0, '% 할인', '2022-03-03', '2022-03-30'), ('discount6', 'restaurant6', 10, '10% 할인', '2023-08-09', '2023-08-14'), ('discount7', 'restaurant7', 5, '5% 할인', '2022-07-05', '2022-07-14'), ('discount8', 'restaurant8', 0, '% 할인', '2021-07-01', '2021-07-28'), ('discount9', 'restaurant9', 0, '% 할인', '2020-08-05', '2020-08-29'), ('discount10', 'restaurant10', 0, '% 할인', '2020-03-06', '2020-03-11'), ('discount11', 'restaurant11', 5, '5% 할인', '2023-11-12', '2023-12-12'), ('discount12', 'restaurant12', 0, '40% 할인', '2020-09-01', '2020-09-15'), ('discount13', 'restaurant13', 0, '% 할인', '2021-07-24', '2021-07-31'), ('discount14', 'restaurant14', 15, '15% 할인', '2020-03-30', '2020-04-03'), ('discount15', 'restaurant15', 35, '35% 할인', '2020-01-12', '2020-01-13'), ('discount16', 'restaurant16', 0, '% 할인', '2020-08-12', '2020-08-15'), ('discount17', 'restaurant17', 0, '% 할인', '2021-01-01', '2021-01-04'), ('discount18', 'restaurant18', 0, '% 할인', '2021-10-03', '2021-10-06'), ('discount19', 'restaurant19', 15, '15% 할인', '2021-06-03', '2021-07-01'), ('discount20', 'restaurant2', 10, '10% 할인', '2023-10-30', '2023-11-06'), ('discount21', 'restaurant3', 0, '% 할인', '2020-04-10', '2020-04-16'), ('discount22', 'restaurant4', 0, '% 할인', '2023-04-10', '2023-04-16'), ('discount23', 'restaurant5', 0, '% 할인', '2022-03-28', '2022-03-30'), ('discount24', 'restaurant6', 10, '10% 할인', '2023-10-09', '2023-10-14'), ('discount25', 'restaurant7', 5, '5% 할인', '2022-09-28', '2022-10-14'), ('discount26', 'restaurant8', 0, '% 할인', '2020-07-04', '2020-07-04'), ('discount27', 'restaurant9', 0, '% 할인', '2020-09-26', '2020-09-29');  ('discount1', 'restaurant1', 0, '% 할인', '2021-10-05', '2021-10-07'), ('discount2', 'restaurant2', 10, '10% 할인', '2023-11-03', '2023-11-10'), ('discount3', 'restaurant3', 0, '% 할인', '2020-04-10', '2020-04-16'), ('discount4', 'restaurant4', 0, '% 할인', '2023-04-10', '2023-04-16'), ('discount5', 'restaurant5', 0, '% 할인', '2022-03-28', '2022-03-30'), ('discount6', 'restaurant6', 10, '10% 할인', '2023-10-09', '2023-10-14'), ('discount7', 'restaurant7', 5, '5% 할인', '2022-09-28', '2022-10-14'), ('discount8', 'restaurant8', 0, '% 할인', '2020-07-04', '2020-07-04'), ('discount9', 'restaurant9', 0, '% 할인', '2020-09-26', '2020-09-29');</pre>	<pre>mysql&gt; select * from discount;</pre> <table border="1"> <thead> <tr> <th>discount_id</th><th>restaurant_id</th><th>discount_percentage</th><th>description</th><th>start_date</th><th>end_date</th></tr> </thead> <tbody> <tr><td>discount1</td><td>restaurant1</td><td>0</td><td>% 할인</td><td>2021-05-05</td><td>2021-05-07</td></tr> <tr><td>discount10</td><td>restaurant10</td><td>0</td><td>% 할인</td><td>2020-03-06</td><td>2020-03-11</td></tr> <tr><td>discount11</td><td>restaurant11</td><td>5</td><td>5% 할인</td><td>2023-11-12</td><td>2023-12-12</td></tr> <tr><td>discount12</td><td>restaurant12</td><td>10</td><td>10% 할인</td><td>2023-04-05</td><td>2023-04-10</td></tr> <tr><td>discount13</td><td>restaurant13</td><td>0</td><td>% 할인</td><td>2021-07-24</td><td>2021-07-31</td></tr> <tr><td>discount14</td><td>restaurant14</td><td>15</td><td>15% 할인</td><td>2020-03-30</td><td>2020-04-03</td></tr> <tr><td>discount15</td><td>restaurant15</td><td>35</td><td>35% 할인</td><td>2020-01-12</td><td>2020-01-13</td></tr> <tr><td>discount16</td><td>restaurant16</td><td>0</td><td>% 할인</td><td>2020-08-12</td><td>2020-08-15</td></tr> <tr><td>discount17</td><td>restaurant17</td><td>0</td><td>% 할인</td><td>2021-01-01</td><td>2021-01-04</td></tr> <tr><td>discount18</td><td>restaurant18</td><td>0</td><td>% 할인</td><td>2021-10-03</td><td>2021-10-06</td></tr> <tr><td>discount19</td><td>restaurant19</td><td>15</td><td>15% 할인</td><td>2021-06-03</td><td>2021-07-01</td></tr> <tr><td>discount20</td><td>restaurant2</td><td>10</td><td>10% 할인</td><td>2023-10-30</td><td>2023-11-06</td></tr> <tr><td>discount21</td><td>restaurant3</td><td>0</td><td>% 할인</td><td>2020-04-10</td><td>2020-04-16</td></tr> <tr><td>discount22</td><td>restaurant4</td><td>0</td><td>% 할인</td><td>2023-04-10</td><td>2023-04-16</td></tr> <tr><td>discount23</td><td>restaurant5</td><td>0</td><td>% 할인</td><td>2022-03-28</td><td>2022-03-30</td></tr> <tr><td>discount24</td><td>restaurant6</td><td>10</td><td>10% 할인</td><td>2023-10-09</td><td>2023-10-14</td></tr> <tr><td>discount25</td><td>restaurant7</td><td>5</td><td>5% 할인</td><td>2022-09-28</td><td>2022-10-14</td></tr> <tr><td>discount26</td><td>restaurant8</td><td>0</td><td>% 할인</td><td>2020-07-04</td><td>2020-07-04</td></tr> <tr><td>discount27</td><td>restaurant9</td><td>0</td><td>% 할인</td><td>2020-09-26</td><td>2020-09-29</td></tr> </tbody> </table> <p>20 rows in set (0.00 sec)</p>	discount_id	restaurant_id	discount_percentage	description	start_date	end_date	discount1	restaurant1	0	% 할인	2021-05-05	2021-05-07	discount10	restaurant10	0	% 할인	2020-03-06	2020-03-11	discount11	restaurant11	5	5% 할인	2023-11-12	2023-12-12	discount12	restaurant12	10	10% 할인	2023-04-05	2023-04-10	discount13	restaurant13	0	% 할인	2021-07-24	2021-07-31	discount14	restaurant14	15	15% 할인	2020-03-30	2020-04-03	discount15	restaurant15	35	35% 할인	2020-01-12	2020-01-13	discount16	restaurant16	0	% 할인	2020-08-12	2020-08-15	discount17	restaurant17	0	% 할인	2021-01-01	2021-01-04	discount18	restaurant18	0	% 할인	2021-10-03	2021-10-06	discount19	restaurant19	15	15% 할인	2021-06-03	2021-07-01	discount20	restaurant2	10	10% 할인	2023-10-30	2023-11-06	discount21	restaurant3	0	% 할인	2020-04-10	2020-04-16	discount22	restaurant4	0	% 할인	2023-04-10	2023-04-16	discount23	restaurant5	0	% 할인	2022-03-28	2022-03-30	discount24	restaurant6	10	10% 할인	2023-10-09	2023-10-14	discount25	restaurant7	5	5% 할인	2022-09-28	2022-10-14	discount26	restaurant8	0	% 할인	2020-07-04	2020-07-04	discount27	restaurant9	0	% 할인	2020-09-26	2020-09-29
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(2-3) drop table scripts (dbdrop.sql) (서선아) The drop table script should include drop table statements to delete all of the tables from the sample database

query	result
<pre>SET FOREIGN_KEY_CHECKS = 0; -- disable foreign keys  drop table Restaurants; drop table Menu; drop table Orders; drop table Reviews; drop table Customers; drop table Payments; drop table Reservations; drop table Staff; drop table Category; drop table Ranking; drop table Inventory; drop table Discount;  -- SHOW TABLES FROM team12; -- check if it's all deleted</pre>	<pre>mysql&gt; source C:\Users\cse_123\Documents\SQL script\dbdrop.sql Query OK, 0 rows affected (0.00 sec)  Query OK, 0 rows affected (0.02 sec) Query OK, 0 rows affected (0.01 sec)  mysql&gt; show tables from team12; Empty set (0.00 sec)</pre>

(2-4) dump file of the database (dbdump.sql) (서선아)

## cmd 창을 연다

=> “mysqldump -u team12 -p team12 > /C:/documents/dbdump.sql” 입력

=> “dbdump.sql” dump file을 찾아 잘 생성되었는지 확인 한다.

=> mysql 로그인 => “create database newDB” 입력 => exit

=> “mysqldump -u team12 -p newDB < /C:/documents/dbdump.sql”를 입력해 DB를 복원하다. => login mysql and check newDB if it has db team12’s data

*<dump file>*

file	dump result
<pre>-- MySQL dump 10.13 Distrib 8.0.35, for Win64 (x86_64)  ... -- Host: localhost Database: team12 ... -- Server version 5.5.10-4.28-MariaDB  /*#40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */; /*#40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */; /*#40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */; /*#40101 SET NAMES utf8mb4 */; /*#40101 SET @@SESSION_TIME_ZONE=@OLD_TIME_ZONE */; /*#40101 SET TIME_ZONE='+00:00' */; /*#40101 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */; /*#40101 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */; /*#40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */; /*#40101 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;  ... -- Table structure for table "category" --    DROP TABLE IF EXISTS `category` ; /*#40101 SET @saved_cs_client      = @@character_set_client */; /*#50503 SET character_set_client = utf8mb4 */;  CREATE TABLE `category` (     `category_id` varchar(255) NOT NULL,     `category_name` varchar(255) NOT NULL,     `restaurant_id` varchar(255) NOT NULL,     PRIMARY KEY (`category_id`), </pre>	<h2 data-bbox="844 1619 1240 1637">dump completed to newDB</h2> <pre>C:\Windows\system202msql\dump -u team12 -p newDB &lt; C:/Users/cse_123/Documents/dbdump.sql Enter password: ***** -- MySQL dump 10.13 Distrib 8.0.35, for Win64 (x86_64) -- Host: localhost Database: newDB ... -- Server version 5.5.5-10.4.28-MariaDB  /*#40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */; /*#40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */; /*#40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */; /*#40101 SET NAMES utf8mb4 */; /*#40101 SET @@SESSION_TIME_ZONE=@OLD_TIME_ZONE */; /*#40101 SET TIME_ZONE='+00:00' */; /*#40101 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */; /*#40101 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */; /*#40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */; /*#40101 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;  -- Warning: column statistics not supported by the server.  --#40103 SET TIME_ZONE=@OLD_TIME_ZONE */;  /*#40101 SET @OLD_CHARACTER_SET_CLIENT=@@CHARACTER_SET_CLIENT */; /*#40101 SET @OLD_CHARACTER_SET_RESULTS=@@CHARACTER_SET_RESULTS */; /*#40101 SET @OLD_COLLATION_CONNECTION=@@COLLATION_CONNECTION */; /*#40101 SET NAMES utf8mb4 */; /*#40101 SET @@SESSION_TIME_ZONE=@OLD_TIME_ZONE */; /*#40101 SET TIME_ZONE='+00:00' */; /*#40101 SET @OLD_UNIQUE_CHECKS=@@UNIQUE_CHECKS, UNIQUE_CHECKS=0 */; /*#40101 SET @OLD_FOREIGN_KEY_CHECKS=@@FOREIGN_KEY_CHECKS, FOREIGN_KEY_CHECKS=0 */; /*#40101 SET @OLD_SQL_MODE=@@SQL_MODE, SQL_MODE='NO_AUTO_VALUE_ON_ZERO' */; /*#40101 SET @OLD_SQL_NOTES=@@SQL_NOTES, SQL_NOTES=0 */;  -- Dump completed on 2023-11-20 04:33:33</pre>

```

CONSTRAINT `category_ibfk_1` FOREIGN KEY (`restaurant_id`) REFERENCES `restaurants`(`rest
ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_general_ci;
/*!40101 SET character_set_client = @saved_cs_client */;

-- Dumping data for table `category`
--

LOCK TABLES `category` WRITE;
/*!40000 ALTER TABLE `category` DISABLE KEYS */;
INSERT INTO `category` VALUES ('category1','g4','restaurant1'),('category10','g4','restaur
/*!40000 ALTER TABLE `category` ENABLE KEYS */;
UNLOCK TABLES;

-- Table structure for table `customers`

DROP TABLE IF EXISTS `customers`;
/*!40101 SET @saved_cs_client      = @@character_set_client */;
/*!50503 SET character_set_client = utf8mb4 */;
CREATE TABLE `customers` (
  `customer_id` varchar(255) NOT NULL,
  `customer_name` varchar(255) NOT NULL,
  `email` varchar(255) NOT NULL,
  `phone` varchar(255) NOT NULL,
  PRIMARY KEY (`customer_id`)
) ENGINE=InnoDB DEFAULT CHARSET=utf8 COLLATE=utf8_general_ci;
/*!40101 SET character_set_client = @saved_cs_client */;

-- Dumping data for table `staff`

LOCK TABLES `staff` WRITE;
/*!40000 ALTER TABLE `staff` DISABLE KEYS */;
INSERT INTO `staff` VALUES ('S01','restaurant1','Alan Turing','010-0100-0000'),('S02','re
/*!40000 ALTER TABLE `staff` ENABLE KEYS */;
UNLOCK TABLES;
/*!40103 SET TIME_ZONE=@OLD_TIME_ZONE */;

/*!40101 SET SQL_MODE=@OLD_SQL_MODE */;
/*!40014 SET FOREIGN_KEY_CHECKS=@OLD_FOREIGN_KEY_CHECKS */;
/*!40014 SET UNIQUE_CHECKS=@OLD_UNIQUE_CHECKS */;
/*!40101 SET CHARACTER_SET_CLIENT=@OLD_CHARACTER_SET_CLIENT */;
/*!40101 SET CHARACTER_SET_RESULTS=@OLD_CHARACTER_SET_RESULTS */;
/*!40101 SET COLLATION_CONNECTION=@OLD_COLLATION_CONNECTION */;
/*!40111 SET SQL_NOTES=@OLD_SQL_NOTES */;

-- Dump completed on 2023-11-19 16:34:03

```

open newDB

```
mysql> use newDB
Database changed
mysql> show tables;
+-----+
| Tables_in_newdb |
+-----+
| category
| customers
| discount
| inventory
| menu
| orders
| payments
| ranking
| reservations
| restaurants
| reviews
| staff
+-----+
```

12 rows in set (0.00 sec)

```
mysql> select * from customers;
```

customer_id	customer_name	email	phone
customer1	Min Soo Lee	mlee@gmail.com	010-0101-0101
customer10	Ba Young Park	bboykym@naver.com	010-1010-1010
customer11	Kangho Song	ksong@gmail.com	010-1111-1111
customer12	Jenny Kim	rubylee@gmail.com	010-1212-1212
customer13	Jisoo Kim	sooys@gmail.com	010-1313-1313
customer14	Hyeon Lee	hlee@naver.com	010-1414-1414
customer15	Sukkyung Sung	woolsg@gmail.com	010-1515-1515
customer16	Hyeonji Sung	hsung0101@gmail.com	010-1616-1616
customer17	Hyeonji Sung	hsung0101@gmail.com	010-1717-1717
customer18	Doo ha Bae	doubleg@gmail.com	010-1818-1818
customer19	Hae soo kim	sock_im@gmail.com	010-1919-1919
customer2	Goo Eun Kim	gk_im@gmail.com	010-0202-0202
customer20	Jung Suk Jo	sjo@gmail.com	010-2020-2020
customer21	Eun jin Ahn	eunj@gmail.com	010-2121-2121
customer22	Hey kyo Song	kyo@gmail.com	010-2222-2222
customer23	Jong Suk Lee	jongle@gmail.com	010-2323-2323
customer24	Heung min Son	son@gmail.com	010-2424-2424
customer25	Yuna Kim	yuna@gmail.com	010-2525-2525
customer26	Hodong Kang	hdong@gmail.com	010-2626-2626
customer27	Jaeusik Yu	jseok@gmail.com	010-2727-2727
customer28	Seho Jo	seho@gmail.com	010-2828-2828
customer29	Jinkyung Hong	jink@gmail.com	010-2929-2929
customer3	Ji Chuil Gong	jgcg@gmail.com	010-0303-0303
customer30	Gwang Hee Hwang	ghheee@gmail.com	010-3030-3030
customer31	Miju Lee	mijule@gmail.com	010-3131-3131
customer32	Jinju Tee	jinju_tee@gmail.com	010-3232-3232
customer33	Woo Hee Chun	woohg@gmail.com	010-3333-3333
customer34	So Yun Lim	syun_lim@gmail.com	010-3434-3434
customer35	Yoonjae Lim	yolim@gmail.com	010-3535-3535
customer36	Young Joon Yoon	yoonj_yoon@gmail.com	010-3636-3636
customer37	Yong Kook Jun	yongkook_jun@gmail.com	010-3737-3737
customer38	Youngha Lee	ylee010@gmail.com	010-3838-3838
customer39	Lisa La	lisa_la@gmail.com	010-3939-3939
customer40	Dong UK Lee	d_lee@naver.com	010-4040-4040
customer41	Se Jungs Yang	sivang@gmail.com	010-4040-4040

- 3) INSERT, DELETE, UPDATE, SELECT related functions should be implemented in the Web site. Some of them should take USER INPUT to generate DYNAMIC QUERIES to run on the database

#### (3-1) INSERT(김윤선, 양가현)

- USER INPUT으로 이메일, 이름, 전화번호를 받아 customers table 또는 staff table에 INSERT를 수행하는 쿼리문

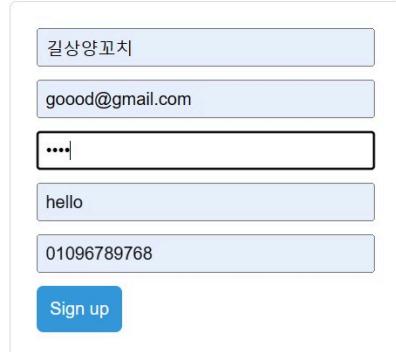
```
<guest_register.php>, <owner_register.php>
// SQL query to insert data into Customers table
$sql = "INSERT INTO Customers (customer_id, customer_name, email, phone)
VALUES ('$nextCustomerId', '$guestName', '$guestEmail', '$guestPhone')";

if ($mysqli->query($sql) === TRUE) {
    echo "New record created successfully";
} else {
    echo "Error: " . $sql . "<br>" . $mysqli->error;
}
```

-> 손님으로 회원가입(직원으로 회원가입도 동일)

New record created successfully

#### Sign up as a owner



길상양꼬치
goood@gmail.com
....
hello
01096789768

Sign up

#### (3-2) DELETE(김윤선, 양가현)

- 관리자 페이지에서 DELETE를 수행하는 쿼리문

```
<delete.php>
```

```
// Delete the order
$deleteStmt = $mysqli->prepare("DELETE FROM orders WHERE order_id = ?");
$deleteStmt->bind_param("s", $orderId);
$deleteStmt->execute();
$deleteStmt->close();
```

```
// Delete the inventory
$deleteStmt = $mysqli->prepare("DELETE FROM inventory WHERE inventory_id = ?");
$deleteStmt->bind_param("s", $inventoryId);
$deleteStmt->execute();
$deleteStmt->close();
```

```
// Delete the reservation
$deleteStmt = $mysqli->prepare("DELETE FROM reservations WHERE reservation_id = ?");
$deleteStmt->bind_param("s", $reservationId);
$deleteStmt->execute();
$deleteStmt->close();
```

```
// Delete the staff
$deleteStmt = $mysqli->prepare("DELETE FROM staff WHERE staff_id = ?");
$deleteStmt->bind_param("s", $staffId);
$deleteStmt->execute();
$deleteStmt->close();
```

localhost:8080/team12/administrator\_page/admin.php?user\_email=esther.duflo@example.com

**Administrator page**

Restaurant Name: 아콘스톱

localhost:8080 내용:  
Are you sure you want to delete the selected data?

[ 확인 ] [ 취소 ]      Update

Select	No	Staff name	Staff phone number	Staff email
<input type="checkbox"/>	S04	Stephen Hawking	010-0400-0000	stephen.hawking@example.com
<input type="checkbox"/>	S10	Esther Duflo	010-1000-0000	esther.duflo@example.com
<input checked="" type="checkbox"/>	S19	Judith Butler	010-1900-0000	judith.butler@example.com

체크박스 클릭 -> delete 버튼 클릭 ->팝업 확인 클릭(모든 탭에서 동일. 단, 리뷰 탭은 삭제, 수정 금지)



**Deleted staff ID: S19**  
**Item Name: Judith Butler**  
**Quantity: 010-1900-0000**  
**Quantity: judith.butler@example.com**

**Go back**

Go back 버튼 클릭

↓

**Administrator page**

select	No	Customer	Menu	Quantity	Order Time
<input type="checkbox"/>	order27	Jaesuk Yu	참치밥샌드	4	2023년 10월 30일 오후 3:30
<input type="checkbox"/>	order47	Ji Hyun Jun	쫄라당	1	2023년 10월 30일 오후 8:30

데이터가 삭제됨

### (3-3) UPDATE(김윤선, 양가현)

- 관리자 페이지에서 UPDATE를 수행하는 쿼리문

```

<update.php>
$query = "UPDATE orders SET quantity = ? WHERE order_id = ?";

$stmt = $mysqli->prepare($query);

// Assuming $dataID is the order_id and $quantity is the new quantity
$stmt->bind_param("is", $quantity, $dataID);
$stmt->execute();

```

```

$query = "UPDATE inventory SET item_name = ?, quantity = ? WHERE inventory_id = ?";

$stmt = $mysqli->prepare($query);

// Assuming $dataID is the inventory_id, $menu is the new item_name, and $quantity is the new quantity
$stmt->bind_param("sis", $menu, $quantity, $dataID);
$stmt->execute();

$query = "UPDATE reservations SET reservation_time = ?, num_guests = ? WHERE reservation_id = ?";

$stmt = $mysqli->prepare($query);

$stmt->bind_param("sis", $time, $number, $dataID);
$stmt->execute();

$query = "UPDATE staff SET staff_name = ?, staff_number = ? WHERE staff_id = ?";

$stmt = $mysqli->prepare($query);

$stmt->bind_param("sss", $staffName, $staffPhone, $dataID);
$stmt->execute();

```

Administrator page

Restaurant Name: 아콘스톱

localhost:8080 내용:  
Please enter the menu and quantity.

select	No	Menu	Quantity
<input checked="" type="checkbox"/>	inventory13	순대떡 볶음	40
<input type="checkbox"/>	inventory14	찹치밥샌드	37

localhost:8080 내용:

Enter the menu:

선태떡

확인 취소

localhost:8080 내용:

Enter the quantity:

10

확인

취소

localhost:8080 내용:

Entered menu: 순대떡

Entered quantity: 10

확인

체크박스 클릭 -> update 버튼 클릭 -> 팝업창에 사용자 입력 받기-> 팝업창 확인 클릭(모든 탭에서 동일. 단, 리뷰 탭은 삭제, 수정 금지 )

↓

← → ⌛ ⓘ localhost:8080/team12/administrator\_page/update.php

Update successful! [Go back](#)

Go back 버튼 클릭

↓

← → ⌛ ⓘ localhost:8080/team12/administrator\_page/admin.php?user\_email=esther.duflo@example.com

⋮ ☆ ☰ 🔍 일시정지됨 :

Administrator page

Restaurant Name: 아콘스톱

Delete

Update

Orders Inventory Reviews Reservations Employees

select	No	Menu	Quantity
<input type="checkbox"/>	inventory13	순대떡	10
<input type="checkbox"/>	inventory14	장치밥샌드	37

데이터가 변경됨(메뉴 이름, 수량 변경)

### (3-4) SELECT(서선아, 김윤선, 양가현, 성수하)

- 음식점목록 필터링 SELECT 쿼리문(한식, 일식, 중식, 양식, 분식)

```
<restaurantList.php>, <filterKor.php>, <filterJpn.php>, <filterChn.php>, <filterWes.php>,  
<filterSnac.php>
```

```
//SQL 쿼리  
$sql = "SELECT r.restaurant_id, r.restaurant_name, c.category_name, round(AVG(v.rating),2) as avg_rating  
FROM Restaurants r JOIN Category c  
ON r.restaurant_id = c.restaurant_id  
JOIN Reviews v  
ON c.restaurant_id = v.restaurant_id  
JOIN Menu m  
ON v.restaurant_id = m.restaurant_id  
GROUP BY restaurant_name";
```

음식점 이름	음식 종류	평점
길상양꼬치	중식	3.50
까이식당	중식	4.00
란주탕숙	중식	5.00

음식종류에 따라 필터링하여 음식점목록을 보여준다.

- 음식점목록 필터링 SELECT 쿼리문(할인(%), 오늘할인(%))

```
<filterDiscount.php>, <filterDiscountDate.php>
```

```
//SQL 쿼리  
$sql = "SELECT r.restaurant_id, r.restaurant_name, c.category_name, d.discount_percentage as discount, d.start_date, d.end_date  
, rank() over (order by discount desc) as discount_rank  
FROM Restaurants r JOIN Category c  
ON r.restaurant_id = c.restaurant_id  
JOIN Discount d  
ON c.restaurant_id = d.restaurant_id  
GROUP BY restaurant_name  
ORDER BY discount_rank  
";
```

음식점 / 종류	할인(%)	날짜
영미김밥 / 분식	40%	2024-09-05 ~ 2024-09-09
률엔률김밥 / 분식	35%	2020-01-12 ~ 2020-01-13
한끼의 행복 / 한식	15%	2021-06-26 ~ 2021-07-01

-모든 음식점들의 할인율과 할인기간을 보여준다.

음식점 / 종류	할인(%)	날짜
밸라비타 / 양식	<b>10%</b>	2023-10-30 ~ 2023-12-06
사장님돈까스 / 한식	<b>10%</b>	2023-10-09 ~ 2024-01-14
미스터서왕만두 / 중식	<b>5%</b>	2023-11-12 ~ 2023-12-12

- 오늘 할인(%)에서는 오늘이 할인 기간에 포함되는 음식점 목록만 보여준다.

- 음식점 상세정보(location, phone, menu, price, review, ranking score)를 불러오는 SELECT 쿼리문 (USER INPUT으로 DYNAMIC QUERY를 만듦)

<restaurantList.php>, <filterKor.php>, <filterDiscount.php> etc.

```
while($row = mysqli_fetch_array($res))
{
    $table .= '
    <tr>
        <td><form action="restaurantDetail.php" method="POST">
            <input type="checkbox" name="restaurant" value="'.$row['restaurant_id'].'" checked>
            <input type="submit" name="submit" value="상세보기" class="detail"></form>
        </td>
    </tr>
'
```

name = "restaurant"로 전달함

restaurant\_id의 값을 ↓ POST로 전달

<restaurantDetail.php>, <menu.php>, <order.php> - SELECT

```
<?php
$id = $_POST['restaurant'];
include "db.php";

//SQL 쿼리
$sql = "SELECT r.restaurant_id, r.restaurant_name, r.location, r.phone, m.item_name, m.price, v.comment, g.score
FROM Restaurants r JOIN Menu m
ON r.restaurant_id = m.restaurant_id
JOIN Reviews v
ON m.restaurant_id = v.restaurant_id
JOIN Ranking g
ON v.restaurant_id = g.restaurant_id
WHERE 1=1";

$sql .= " AND r.restaurant_id ='".$id."'";
$sql .= " GROUP BY item_name ";
```

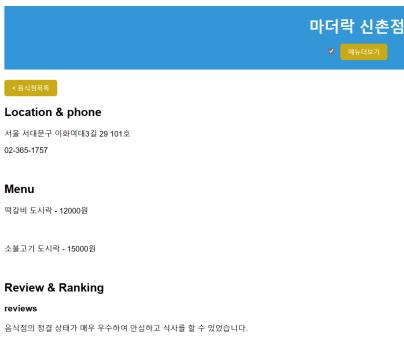
```
$id = $_POST['restaurant'];
$sql .= "AND r.restaurant_id ='".$id"';
```

### Restaurant List



checkbox로 restaurant\_id 데이터를 input(USER INPUT)하고, “상세보기” 버튼으로 submit하였음

### Restaurant Details



POST →

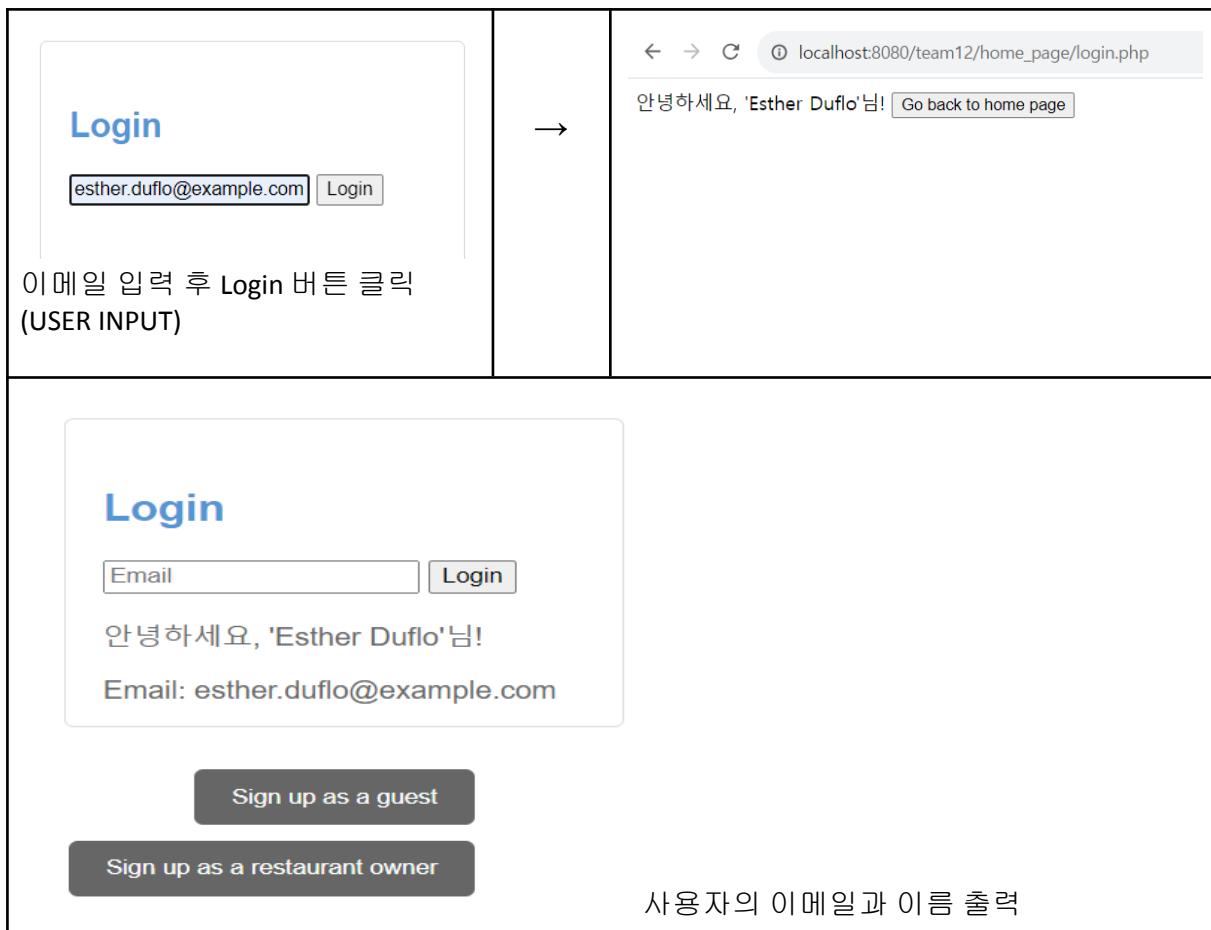
POST로 받은 restaurant\_id 데이터(USER INPUT, \$\_POST['restaurant\_id'])를 가지고 sql 쿼리를 동적으로 바꿈. SELECT구문의 WHERE절 조건을 더해(DYNAMIC QUERY) 해당 restaurant\_id의 음식점 세부정보 데이터를 불러오는 페이지를 만듦

- 사용자가 입력한 이메일을 활용하여 customers table에서 고객의 이름을 찾는 쿼리문과 staff table에서 직원의 이름을 찾는 쿼리문

```
<login.php>
// 이메일 입력값 가져오기
$email = $_POST['userName'];

// Customers 테이블에서 이메일 검색
$query_customer = "SELECT customer_name FROM customers WHERE email = ?";
$stmt_customer = $mysqli->prepare($query_customer);
$stmt_customer->bind_param("s", $email);
$stmt_customer->execute();
$result_customer = $stmt_customer->get_result();

// Staff 테이블에서 이메일 검색
$query_staff = "SELECT staff_name FROM staff WHERE staff_email = ?";
$stmt_staff = $mysqli->prepare($query_staff);
$stmt_staff->bind_param("s", $email);
$stmt_staff->execute();
$result_staff = $stmt_staff->get_result();
```



-owner\_info.php: 로그인 시 사용자가 입력한 이메일을 활용하여 해당 이메일을 사용하는 직원이 운영하는 음식점 이름을 찾는 쿼리문

```
<owner_info.php>
```

```

// Retrieve user_email from the query parameters
$user_email = isset($_GET['user_email']) ? $_GET['user_email'] : "";

// Query to retrieve restaurant name
$query = "SELECT r.restaurant_name
          FROM staff s
          JOIN restaurants r ON s.restaurant_id = r.restaurant_id
          WHERE s.staff_email = ?";
$stmt = $mysqli->prepare($query);
$stmt->bind_param("s", $user_email);
$stmt->execute();
$stmt->bind_result($restaurant_name);

// Fetch the result
$stmt->fetch();

```

9

Welcome to our restaurant data analysis project!

This project was developed to analyze restaurant data and provide useful information to users.

Take a look at the main features of the project below.

#### Main functions

- Function 1: View restaurant list
- Function 2: Check restaurant details
- Function 3: ordering food
- Function 4: Check payment and order history
- Function 5: Write a review
- Function 6: View reviews
- Function 7: Administrator function

[Go to restaurants](#)   [To view reviews](#)   [Administrator function](#)

로그인 후 Administrator function 버튼 클릭



localhost:8080/team12/administrator\_page/admin.php?user\_email=esther.duflo@example.com

## Administrator page

Restaurant Name: 아콘스톨

직원이 운영하는 음식점 이름 출력

-reviews table에서 아이디, 음식점 이름, 리뷰 내용, 평점, 작성자 이름을 불러오는 쿼리문

```
<review_view.php>

// 리뷰 데이터, 레스토랑 이름, 고객 이름 가져오기 (조인 수행)
$query = "SELECT reviews.review_id, restaurants.restaurant_name, reviews.comment, reviews.rating, customers.customer_name
FROM reviews
JOIN restaurants ON reviews.restaurant_id = restaurants.restaurant_id
JOIN customers ON reviews.customer_id = customers.customer_id
LIMIT $offset, $itemsPerPage";
$result = mysqli_query($mysqli, $query);

<?php
// 가져온 데이터를 반복문을 사용하여 출력
while ($row = mysqli_fetch_assoc($result)) {
    echo "<tr>";
    echo "<td>" . $row['review_id'] . "</td>";
    echo "<td>" . $row['restaurant_name'] . "</td>";
    echo "<td>" . $row['comment'] . "</td>";
    echo "<td>" . $row['rating'] . "</td>";
    echo "<td>" . $row['customer_name'] . "</td>";
    echo "</tr>";
}
?>
```

localhost:8080/team12/home\_page/home.php

## Restaurant data analysis project

Welcome to our restaurant data analysis project!

This project was developed to analyze restaurant data and provide useful information to users.

Take a look at the main features of the project below.

### Main functions

- Function 1: View restaurant list
- Function 2: Check restaurant details
- Function 3: ordering food
- Function 4: Check payment and order history
- Function 5: Write a review
- Function 6: View reviews
- Function 7: Administrator function



Login

Email  Login

안녕하세요, 'Esther Duflo'님!

Email: esther.duflo@example.com

Sign up as a guest

Sign up as a restaurant owner

하단의 'To view reviews' 버튼 클릭



View reviews

No	Restaurant	Comment	Rate	Writer
review38	영미김밥	특별한 메뉴나 요정에도 친절하게 응대해주어 만족스러웠습니다.	4	Young Ji lee
review39	영미김밥	음식의 재료가 신선해서 맛 또한 탁월했습니다.	4	Lisa La
review40	영미김밥	전문적인 솜씨로 조리된 음식들이 식사를 더욱 특별하게 만들어주었습니다.	5	Se Jong Yang
review41	초식곳간	주방에서 나오는 요리의 향기가 입맛을 돋우어 기대 이상으로 맛있게 느껴졌습니다.	5	Dong Yup Shin
review42	초식곳간	고급스러운 식기와 조명이 음식과 분위기를 더욱 빛나게 해주었습니다.	3	Da Mi Lee
review43	초식곳간	요리사들의 정성이 느껴져 식사하는 동안 행복한 시간을 보낼 수 있었습니다.	2	Sarang Choo
review44	한끼마끼	음식의 조리가 빠르고 정확해서 기다리는 시간이 적었습니다.	5	Woo Bin Kim
review45	한끼마끼	늘 정성을 다해 준비된 음식들이 고객들에게 감동을 주었습니다.	5	Hyun Bin
review46	한끼마끼	조용한 음악이 흐르는 배경이 식사는 동안 눈과 입에 즐거움을 주었습니다.	4	Yejin Son
review47	롤엔롤김밥	주방과 음식점의 위생 상태가 우수하여 건강을 생각하며 식사할 수 있었습니다.	4	Ji Hyun Jun

처음 이전 1 2 3 다음 맨끝

-음식점 이름, 리뷰 평점, 카테고리로 검색을 하면, 사용자가 입력한 키워드로 reviews table에서 데이터를 받아오는 쿼리문

```
<search.php>
// 사용자 입력 받기
$searchInput = isset($_GET['searchInput']) ? $_GET['searchInput'] : '';

// 리뷰 데이터, 레스토랑 이름, 고객 이름 가져오기 (조인 수행)
$query = "SELECT reviews.review_id, restaurants.restaurant_name, reviews.comment, reviews.rating, customers.customer_name
        FROM reviews
        JOIN restaurants ON reviews.restaurant_id = restaurants.restaurant_id
        JOIN customers ON reviews.customer_id = customers.customer_id
        JOIN Category ON restaurants.restaurant_id = Category.restaurant_id
        WHERE restaurants.restaurant_name LIKE ? OR reviews.rating LIKE ? OR Category.category_name LIKE ?";
$stmt = $mysqli->prepare($query);

// 검색어에 '%'를 추가하여 LIKE 연산을 수행합니다.
$searchInput = '%' . $searchInput . '%';

// 바인딩 및 실행
$stmt->bind_param("sss", $searchInput, $searchInput, $searchInput);
$stmt->execute();
$result = $stmt->get_result();
?>
```

-음식점 이름으로 검색 (입력한 키워드(searchInput)를 “submit”으로 전달

localhost:8080/team12/review\_list\_page/search.php?searchInput=영미김밥

Search Results

No	식당	코멘트	평점	작성자
review38	영미김밥	특별한 메뉴나 요정에도 친절하게 응대해주어 만족스러웠습니다.	4	Young Ji lee
review39	영미김밥	음식의 재료가 신선해서 맛 또한 탁월했습니다.	4	Lisa La
review40	영미김밥	전문적인 솜씨로 조리된 음식들이 식사를 더욱 특별하게 만들어주었습니다.	5	Se Jong Yang

## -리뷰 평점으로 검색

No	식당	코멘트	평점	작성자
review2	길상양꼬치	직원들의 서비스는 매우 친절하고 신속합니다.	5	Go Eun Kim
review32	만주탕속	정기적인 청소와 손질이 잘 되어 있어 위생적으로 안심할 수 있었습니다.	5	Jinju Lee
review33	만주탕속	공간이 넓어서 사적인 모임을 가질 때에도 편안했습니다.	5	Woo Hee Chun
review34	만주탕속	식사 후에는 다양한 차와 커피가 제공되어 여유로운 시간을 보낼 수 있었습니다.	5	So Yun Jun
review40	영미김밥	전문적인 송씨로 조리된 음식들이 식사를 더욱 특별하게 만들어주었습니다.	5	Se Jong Yang
review41	초식곳간	주방에서 나오는 요리의 향기가 입맛을 돋우어 기대 이상으로 맛있게 느껴졌습니다.	5	Dong Yup Shin
review44	한끼야끼	음식의 조리가 빠르고 정확해서 기다리는 시간이 적었습니다.	5	Woo Bin Kim

## -카테고리로 검색

No	식당	코멘트	평점	작성자
review41	초식곳간	주방에서 나오는 요리의 향기가 입맛을 돋우어 기대 이상으로 맛있게 느껴졌습니다.	5	Dong Yup Shin
review42	초식곳간	고급스러운 식기와 조명이 음식과 분위기를 더욱 빛나게 해주었습니다.	3	Da Mi Lee
review43	초식곳간	요리사들의 정성이 느껴져 식사하는 동안 행복한 시간을 보낼 수 있었습니다.	2	Sarang Choo
review54	아현닭발	깔끔하게 정돈된 식탁이나 음식 준비 과정이 프로페셔널한 인상을 주었습니다.	3	Dong Uk Lee
review55	아현닭발	다채로운 색감과 신선한 재료들이 사용된 음식들이 눈과 입에 즐거움을 선사했습니다.	3	Eun Woo Cha
review56	아현닭발	온 가족이 함께 즐길 수 있는 메뉴 구성이 잘 되어 있어 대가족 모임에도 좋았습니다.	3	Suzy Bae
review57	아현닭발	섬세하게 디자인된 디저트가 식사를 마무리하는데 아주 좋은 선택이었습니다.	4	Wonyoung Jang

-관리자 페이지에서 음식점 이름으로 `restaurant_id`를 찾는 쿼리문

->`restaurant_id`를 찾은 후, 이를 활용하여 `orders table / inventory table / reviews table / reservations table / staff table`에서 `SELECT`를 수행하는 쿼리문

`<order.php>, <inventory.php>, <review.php>, <reservation.php>, <staff.php>`(공통)  
-직원은 각 탭에서 관리할 수 있다.

```
// 음식점 이름으로 restaurant_id 찾기
$restaurantQuery = "SELECT restaurant_id FROM restaurants WHERE restaurant_name = ?";
$restaurantStmt = $mysqli->prepare($restaurantQuery);
$restaurantStmt->bind_param("s", $restaurant_name);
$restaurantStmt->execute();
$restaurantStmt->bind_result($restaurant_id);
$restaurantStmt->fetch();
$restaurantStmt->close();
```

`<order.php>`

```

// Orders table에서 데이터 받아오기
$orderQuery = "SELECT orders.order_id, customers.customer_name, menu.item_name, orders.quantity, orders.order_time
FROM orders
JOIN customers ON orders.customer_id = customers.customer_id
JOIN menu ON orders.menu_id = menu.menu_id
WHERE orders.restaurant_id = ?";

$orderStmt = $mysqli->prepare($orderQuery);
$orderStmt->bind_param("s", $restaurant_id); //주의-restaurant_id는 string
$orderStmt->execute();
$orderResult = $orderStmt->get_result();

```

#### Administrator page

Restaurant Name: 아콘스톨

select	No	Customer	Menu	Quantity	Order Time
<input type="checkbox"/>	order27	Jaesuk Yu	참치밥샌드	4	2023년 10월 30일 오후 3:30
<input type="checkbox"/>	order47	Ji Hyun Jun	쫄라탕	1	2023년 10월 30일 오후 8:30
<input type="checkbox"/>	order7	Wonyoung Jang	순대떡 볶음	1	2023년 10월 30일 오전 9:30

#### <inventory.php>

```

// inventory table에서 알아낸 restaurant_id에 해당하는 데이터 가져오기
$inventoryQuery = "SELECT inventory_id, item_name, quantity
FROM inventory
WHERE restaurant_id = ?";

$inventoryStmt = $mysqli->prepare($inventoryQuery);
$inventoryStmt->bind_param("s", $restaurant_id);
$inventoryStmt->execute();
$inventoryResult = $inventoryStmt->get_result();

```

#### Administrator page

Restaurant Name: 아콘스톨

select	No	Menu	Quantity
<input type="checkbox"/>	inventory13	순대떡 볶음	40
<input type="checkbox"/>	inventory14	참치밥샌드	37

#### <review.php>

```
// reviews table에서 데이터 받아오기
$reviewsQuery = "SELECT reviews.review_id, reviews.comment, reviews.rating, customers.customer_name
                FROM reviews
                JOIN customers ON reviews.customer_id = customers.customer_id
                WHERE reviews.restaurant_id = ?";
$reviewsStmt = $mysqli->prepare($reviewsQuery);
$reviewsStmt->bind_param("s", $restaurant_id); //주의-restaurant_id는 string
$reviewsStmt->execute();
$reviewsResult = $reviewsStmt->get_result();
```

#### Administrator page

Restaurant Name: 아콘스톨

Select	No	Comment	Rating	Writer
<input type="checkbox"/>	review23	특별한 이벤트나 기념일에 분위기를 맞춰서 좋은 경험을 할 수 있었습니다.	5	Jong Suk Lee
<input type="checkbox"/>	review24	할인 행사나 이벤트가 많아 경제적으로도 만족스러웠습니다.	4	Heung min Son
<input type="checkbox"/>	review25	소음이 적어 대화하기에 편안했습니다.	3	Yuna Kim

#### <reservation.php>

```
// Reservations table에서 데이터 받아오기
$reservationsQuery = "SELECT reservations.reservation_id, customers.customer_name, reservations.reservation_time, reservations.num_guests
                      FROM reservations
                      JOIN customers ON reservations.customer_id = customers.customer_id
                      WHERE reservations.restaurant_id = ?";
$reservationsStmt = $mysqli->prepare($reservationsQuery);
$reservationsStmt->bind_param("s", $restaurant_id); //주의-restaurant_id는 string
$reservationsStmt->execute();
$reservationsResult = $reservationsStmt->get_result();
```

#### Administrator page

Restaurant Name: 아콘스톨

Select	No	Reservation name	Time	Number
<input type="checkbox"/>	reservation23	Jong Suk Lee	12:25:00	2
<input type="checkbox"/>	reservation42	Da Mi Lee	13:50:00	3
<input type="checkbox"/>	reservation9	Jieun Lee	12:25:00	2

#### <staff.php>

```
// staff table에서 데이터 받아오기
$staffQuery = "SELECT staff.staff_id, staff.staff_name, staff.staff_number, staff.staff_email
                  FROM staff
                  WHERE staff.restaurant_id = ?";
$staffStmt = $mysqli->prepare($staffQuery);
$staffStmt->bind_param("s", $restaurant_id); //주의-restaurant_id는 string
$staffStmt->execute();
$staffResult = $staffStmt->get_result();
```

**Administrator page**

Select	No	Staff name	Staff phone number	Staff email
<input type="checkbox"/>	S04	Stephen Hawking	010-0400-0000	stephen.hawking@example.com
<input type="checkbox"/>	S10	Esther Duflo	010-1000-0000	esther.duflo@example.com
<input type="checkbox"/>	S19	Judith Butler	010-1900-0000	judith.butler@example.com

4) Some SELECT queries should include SUM, AVG, etc (aggregation operations) and also GROUP BY statements (=5-1 조건과 같다) (서선아, 김윤선, 양가현)

- 음식점 목록에서 평점을 계산하여 다른 속성들과 반환하는 쿼리문 (서선아)

```
<restaurantList.php>
<div class="restaurant-list" id="restaurantList">
<?php
    include "db.php";

    //SQL 쿼리
    $sql = "SELECT r.restaurant_id, r.restaurant_name, c.category_name, round(AVG(v.rating),2) as avg_rating
    FROM Restaurants r JOIN Category c
    ON r.restaurant_id = c.restaurant_id
    JOIN Reviews v
    ON c.restaurant_id = v.restaurant_id
    JOIN Menu m
    ON v.restaurant_id = m.restaurant_id
    GROUP BY restaurant_name";

    //mysql 쿼리 실행
    $res = mysqli_query($mysqli,$sql);
    // 배열로 값 호출하기
    if(mysqli_num_rows($res) > 0)
```

- AVG(v.rating)과 GROUP BY restaurant\_name을 사용한 SELECT문 쿼리  
(+ round() 함수로 소수점 두 자리수까지 반올림하였음

실행화면

**Restaurant List**

음식점 이름	음식 종류	평점
길상양꼬치	중식	<u>3.50</u>
까이식당	중식	<u>4.00</u>
란주탕속	중식	<u>5.00</u>
롤엔롤김밥	분식	<u>3.67</u>
마더락 신촌점	한식	3.60
마포부식	분식	3.75

각 restaurant(음식점) 당 rating의 개수가 여러개였는데, AVG aggregation function을 통해 rating의 평균을 계산하여 그 값이 나타나도록 했다.

5) Provide 3 kinds of advanced analysis functions to users for the data that is stored in the database - caution: providing same function on different data does not count as additional function (such as calculating complex average on data A, and then using similar complex average on data B will be counted as 1 kind of analysis function)

- 3 kinds of advanced analysis functions are : (1, 2, 3 should all be satisfied)

1) providing aggregates (sum, average, max, min, etc.) based on complex groupings (group on several columns) - 4)번에서 설명

2) rollup, drill down on OLAP data(김윤선, 양가현)

-관리자 페이지의 Orders 탭에서 월별 총 주문량을 rollup 하여 출력한다.

```
<order.php>

// Roll up: 월별 주문 총 수량
$rollupQuery = "SELECT DATE_FORMAT(orders.order_time, '%Y-%m') AS order_month, SUM(orders.quantity) AS total_quantity
                FROM orders
                WHERE orders.restaurant_id = ?
                GROUP BY order_month
                ORDER BY order_month";

$rollupStmt = $mysqli->prepare($rollupQuery);
$rollupStmt->bind_param("s", $restaurant_id);
$rollupStmt->execute();
$rollupResult = $rollupStmt->get_result();
```

->roll up

The screenshot shows a web application interface for 'Order Statistics'. At the top, there is a navigation bar with tabs for 'Monthly' (selected), 'Total Order Quantity' (7), and a 'Go back' button. Below this, the title 'Administrator page' is displayed. On the left, there is a form field labeled 'Restaurant Name: 아콘스톨'. To the right, there are two buttons: 'Delete' and 'Update'. Below the form, there is a horizontal navigation bar with tabs: 'Orders' (selected), 'Inventory', 'Reviews', 'Reservations', and 'Employees'. Under the 'Orders' tab, there is a table titled 'select' showing detailed order information:

select	No	Customer	Menu	Quantity	Order Time
□	order27	Jaesuk Yu	침치밥샌드	4	2023년 10월 30일 오후 3:30
□	order47	Ji Hyun Jun	쫄라당	1	2023년 10월 30일 오후 8:30
□	order51	Bo Yung Park	순대떡 볶음	1	2023년 10월 29일 오전 9:30
□	order52	Heung min Son	순대떡 볶음	1	2023년 10월 28일 오전 9:30

-관리자 페이지의 Orders 탭에서 메뉴별 주문량을 drill down하여 출력한다.

```

<order.php>

// Drill down into menu items for a particular restaurant
$drilldownQuery = "SELECT menu.item_name, SUM(orders.quantity) AS total_quantity
                  FROM orders
                  JOIN menu ON orders.menu_id = menu.menu_id
                  WHERE orders.restaurant_id = ?
                  GROUP BY menu.item_name
                  ORDER BY menu.item_name";

$drilldownStmt = $mysqli->prepare($drilldownQuery);
$drilldownStmt->bind_param("s", $restaurant_id);
$drilldownStmt->execute();
$drilldownResult = $drilldownStmt->get_result();

```

-> drill down

**Order Statistics for Each Menu Item**

Menu Item	Total Quantity
순대떡 볶음	2
쫄라당	1
참치밥샌드	4

[Go back](#)

**Administrator page**

select	No	Customer	Menu	Quantity	Order Time
<input type="checkbox"/>	order27	Jaesuk Yu	참치밥샌드	4	2023년 10월 30일 오후 3:30
<input type="checkbox"/>	order47	Ji Hyun Jun	쫄라당	1	2023년 10월 30일 오후 8:30
<input type="checkbox"/>	order51	Bo Yung Park	순대떡 볶음	1	2023년 10월 29일 오전 9:30
<input type="checkbox"/>	order52	Heung min Son	순대떡 볶음	1	2023년 10월 28일 오전 9:30

Restaurant Name: 아콘스톨

[Delete](#) [Update](#)

Orders Inventory Reviews Reservations Employees

### 3) ranking, or windowing (서선0)

<filterDiscount.php>, <filterDiscountDate.php file>

```

// SQL 쿼리
$sql = "SELECT r.restaurant_id, r.restaurant_name, c.category_name, d.discount_percentage AS discount, d.start_date, d.end_date
        , rank() over (order by discount desc) AS discount_rank
   FROM Restaurants r JOIN Category c
   ON r.restaurant_id = c.restaurant_id
  JOIN Discount d
  ON c.restaurant_id = d.restaurant_id
 GROUP BY restaurant_name
 ORDER BY discount_rank
";

```

Ranking : “rank() over (order by discount desc) as discount\_rank”

“...ORDER BY discount\_rank”로 advanced analysis function인 ‘Ranking’을 사용함

실행결과1 <할인(%) 페이지>

실행결과2 <오늘할인(%) 페이지>

음식점 / 종류	할인(%)	날짜
영미김밥 / 분식	40%	2024-09-05 ~ 2024-09-09
롤엔젤김밥 / 분식	35%	2020-01-12 ~ 2020-01-13
한끼의 행복 / 한식	15%	2021-06-26 ~ 2021-07-01
한끼마끼 / 일식	15%	2020-03-30 ~ 2020-04-03
밸라비타 / 양식	10%	2023-10-30 ~ 2023-12-06
마포분식 / 분식	10%	2020-04-01 ~ 2020-04-08

음식점 / 종류	할인(%)	날짜
밸라비타 / 양식	10%	2023-10-30 ~ 2023-12-06
사장님돈까스 / 한식	10%	2023-10-09 ~ 2024-01-14
미스터서왕만두 / 중식	5%	2023-11-12 ~ 2023-12-12

할인(%)의 값(discount)을 기준으로 내림차순(desc)으로 데이터가 정렬(ORDER BY discount\_rank)되어 나타남

- 6) User input should include various types of controls such as text box, buttons, etc. (Not just a single text box and single submit button!) (서선아, 김윤선, 양가현, 성수하)

<restaurantList.php>, <filterKor>, <filterDiscount.php>, etc.

```
<form class="filter-buttons">
    <a href ="restaurantList.php"><input type="button" id="filterAll" class="filter-button" name="filterAll" value="전체" /></a>
    <a href ="filterKor.php"><input type="button" id="filterKor" class="filter-button" name="filterKor" value="한식" /></a>
    <a href ="filterJpn.php"><input type="button" id="filterJpn" class="filter-button" name="filterJpn" value="일식" /></a>
    <a href ="filterChn.php"><input type="button" id="filterChn" class="filter-button" name="filterChn" value="중식" /></a>
    <a href ="filterWes.php"><input type="button" id="filterWes" class="filter-button" name="filterWes" value="양식" /></a>
    <a href ="filtersnac.php"><input type="button" id="filtersnac" class="filter-button" name="filtersnac" value="분식" /></a>
    <a href ="filterDiscount.php"><input type="button" id="filterDiscount" class="discount-button" name="filterDiscount" value="할인(%)" /></a>
    <a href ="filterDiscountDate.php"><input type="button" id="filterDiscountDate" class="discount-button" name="filterDiscountDate" value="오늘할인(%)" /></a>
</form>
```

## Restaurant List

전체    한식    일식    중식    양식    분식    할인(%)    오늘할인(%)

다른 페이지로의 화면 전환을 통해 필터링 기능을 제공하는 버튼 집합 구현 음식점 목록을 다채롭게 필터링해준다.

- 전체 button: 전체 음식점목록(음식점이름, 음식종류, 평점)
- 한식, 일식, 중식, 양식, 분식 button: 음식 종류 필터링 기능
- 할인(%), 오늘할인(%) button: 할인(%)의 크기순으로 정렬해주는 기능, (음식점이름/종류, 할인%, 할인기간)오늘 할인받을 수 있는 음식점 필터링 기능(오늘할인 버튼)

- 체크박스 & "메뉴더보기" 버튼 : 음식점상세화면->메뉴화면 전환 버튼 (서선아)

```
<restaurantDetail.php>
$title .= '<h1>' . $row['restaurant_name'] . '</h1>
<form action="menu.php" method="POST" class="menu-buttons">
<input type="checkbox" name="restaurant" value="" . $row['restaurant_id'] . " checked>
<input type="submit" name="submit" value="메뉴더보기" class="menu">
</form></h1>
<form>
<a href ="restaurantList.php"><input type="button" id="listAll" class="list-button" name="listAll" value="< 음식점목록" /></a>
</form>;
```

<menu.php>

```
$id = $_POST["restaurant"];

include "db.php";

//SQL 쿼리
$sql = "SELECT r.restaurant_id, r.restaurant_name, m.item_name, m.price, m.description
FROM Restaurants r JOIN Menu m
ON r.restaurant_id = m.restaurant_id
WHERE 1=1";

$sql .= " AND r.restaurant_id = '" . $id . "'";
```

	
<p><b>Location &amp; phone</b></p> <p>서울 서대문구 북아현로 107 1층 0507-1321-9111</p> <p><b>Menu</b></p> <p>리코타치즈샐러드 - 16500원</p> <p>음식점상세 페이지. <u>checkbox &amp; submit button</u> restaurant_id를 input으로 하는 checkbox 옆에 “메뉴더보기” submit 버튼을 생성. Menu 페이지에 “POST”로 input value를 전송함.</p>	<p><b>Menu</b></p> <p>리코타치즈샐러드 16500원 신선한 리코타치즈로 만든 샐러드</p> <p>한우스테이크샐러드 28500원 한우 채끝으로 만들어진 한우스테이크</p> <p>음식점상세 페이지에서 전송받은 input data로 Dynamic Query를 생성함(SELECT문)</p>

- “주문하기”: 체크박스 & 텍스트박스 3개 (with submit 버튼) (서선아)

<menu.php>

```

if($number == mysqli_num_rows($res)){
$title .= '

<p>
<form action="order.php" method="POST">
<input type="checkbox" name="restaurant" value="'.$row['restaurant_id'].'" checked>
<input type="text" name="quantity1" size="10" placeholder="메뉴1의 수량">
<input type="text" name="quantity2" size="10" placeholder="메뉴2의 수량">
<input type="text" name="quantity3" size="10" placeholder="메뉴3 없으면 0">
<input type="submit" id="order" name="order" class = "order" value="주문하기">
</form>
</p>
';

}

<br>

```

<order.php>

```

$sql = "SELECT r.restaurant_name, m.item_name, m.price, d.discount_percentage AS discount, d.start_date, d.end_date
FROM Restaurants r JOIN Menu m
ON r.restaurant_id = m.restaurant_id
JOIN Discount d
ON m.restaurant_id = d.restaurant_id
WHERE 1=1";

$sql .= " AND r.restaurant_id = '".$_POST["restaurant"]."';

$section .= '
<section>
<div class="menu-item">
    <h2>' . $row['item_name'] . '</h2>
    <p>price: .' . $row['price'] . ' 원</p>
    <p>수량: ' . $_POST['quantity'] . strval($number + 1) . '</p>
</div>
</section>
';
$number++;

```

```

$total += $row['price'] * $_POST['quantity'] . strval($number);

```

## 실행화면

The screenshot shows a two-page application. On the left, the 'Menu' page displays a list of items with their names, prices, and descriptions. The first item is '리코타치즈샐러드' at 16500원, described as '신선한 리코타치즈로 만든 샐러드'. The second item is '한우스테이크샐러드' at 28500원, described as '한우 채끝으로 만들어진 한우스테이크'. On the right, the 'Order' page shows an 'Ordering List' with two items: '리코타치즈샐러드' (quantity 2) and '한우스테이크샐러드' (quantity 1). The total price is listed as 55350 원. A button labeled '주문하기' (Place Order) is visible.

### checkbox & textbox & submit button

checkbox가 input하는 데이터는 restaurant\_id이며, textbox는 주문할 각 메뉴의 수량을 input으로 받을 것이다.

“주문하기” submit 버튼으로 input 데이터들을 Order 페이지에 “POST”로 전송한다. 한편, 전송받은 \$\_POST['quantity1'], \$\_POST['quantity']는 총 지불금액 \$total을 계산하는데 사용된다.



7) Use PHP sessions to store and retrieve information needed between some pages displayed (서선아, 김윤선, 양가현)

-로그인 시 사용자가 입력한 이메일과 데이터베이스의 customers table 또는 staff table에 일치하는 데이터가 있으면 이를 session으로 저장 후 사용

-저장한 데이터를 홈페이지에서 로그인된 회원 정보를 출력할 때 사용

-저장한 데이터를 관리자페이지에 전달

```
<login.php>

// 사용자의 이름 표시
if ($result_customer->num_rows > 0) {
    // Customers 테이블에서 일치하는 정보가 있을 경우
    $row = $result_customer->fetch_assoc();
    $user_name = $row['customer_name'];
    // 세션에 사용자 이름 및 이메일 저장
    session_start();
    $_SESSION['user_name'] = $user_name;
    $_SESSION['user_email'] = $email; // Add this line to store the email in the session
    echo "안녕하세요, '$user_name'님!";
}
elseif ($result_staff->num_rows > 0) {
    // Staff 테이블에서 일치하는 정보가 있을 경우
    $row = $result_staff->fetch_assoc();
    $user_name = $row['staff_name'];
    // 세션에 사용자 이름 및 이메일 저장
    session_start();
    $_SESSION['user_name'] = $user_name;
    $_SESSION['user_email'] = $email; // Add this line to store the email in the session
    echo "안녕하세요, '$user_name'님!";
} else {
    // 일치하는 정보가 없을 경우
    session_start();
    $_SESSION['user_name'] = "로그인 실패";
    $_SESSION['user_email'] = "가입된 이메일이 없습니다."; // Empty email in case of failure
    echo "일치하는 정보가 없습니다.";
}
```

```
<home.php>

<?php
// 세션 시작 - 로그인 후 환영 인사 띄우기 위함
session_start();
?>
```

```

<!-- 세션이 설정되어 있으면 사용자 이름을 표시 -->
<?php
if (isset($_SESSION['user_name'])) {
    if($_SESSION['user_name'] == "로그인 실패") {
        $user_name = $_SESSION['user_name'];
        $user_email = $_SESSION['user_email'];
        echo "<p>$user_name</p>";
        echo "<p>Email: $user_email</p>";
    }
    else {
        $user_name = $_SESSION['user_name'];
        $user_email = $_SESSION['user_email'];
        echo "<p>안녕하세요, '$user_name' 님!</p>";
        echo "<p>Email: $user_email</p>";
    }
}
?>

```

->로그인 성공한 회원 정보를 출력

\$user\_name에 \$\_SESSION['user\_name']의 데이터를 받아온다

\$user\_email에 \$\_SESSION['user\_email']의 데이터를 받아온다

```

<script>
    function redirectToAdmin() {
        <?php
        // Check if user_email is set in the session
        if (isset($_SESSION['user_email'])) {
            $user_email = $_SESSION['user_email'];
        } else {
            $user_email = ""; // Default value if user_email is not set
        }
        ?>

        // Redirect to admin.php with the user_email as a query parameter
        window.location.href = `../administrator_page/admin.php?user_email=<?php echo $user_email; ?>`;
    }
</script>

```

->\$user\_email에 \$\_SESSION['user\_email']의 데이터를 받아서 관리자 페이지에 전달한다

8) Use at least one transaction in the database for some part of the project. (김윤선, 양가현)

-restaurants table에서 restaurant\_id를 SELECT하는 쿼리문과 inventory table에서 inventory\_id, item\_name, quantity를 SELECT하는 쿼리문 중 하나라도 실패하면 롤백한다.

```
<inventory.php>
// 트랜잭션 시작
$mysqli->begin_transaction();

try {
    // 음식점 이름으로 restaurant_id 찾기
    $restaurantQuery = "SELECT restaurant_id FROM restaurants WHERE restaurant_name = ?";
    $restaurantStmt = $mysqli->prepare($restaurantQuery);
    $restaurantStmt->bind_param("s", $restaurant_name);
    $restaurantStmt->execute();
    $restaurantStmt->bind_result($restaurant_id);
    $restaurantStmt->fetch();
    $restaurantStmt->close();
    // inventory table에서 알아낸 restaurant_id에 해당하는 데이터 가져오기
    $inventoryQuery = "SELECT inventory_id, item_name, quantity
                      |   |   |
                      |       FROM inventory
                      |       WHERE restaurant_id = ?";
    $inventoryStmt = $mysqli->prepare($inventoryQuery);
    $inventoryStmt->bind_param("s", $restaurant_id);
    $inventoryStmt->execute();
    $inventoryResult = $inventoryStmt->get_result();

    // 모든 쿼리가 성공하면 커밋
    $mysqli->commit();
} catch (Exception $e) {
    // 쿼리 중 하나라도 실패하면 롤백
    $mysqli->rollback();
    echo "Transaction failed: " . $e->getMessage();
}

// 연결 해제
$mysqli->close();
?>
```

## 6. Task division

name	area	detailed tasks
2076077 김윤선	frontend & backend	<p>Team leader php diagram sql script</p> <p>홈페이지/회원가입/리뷰작성/리뷰목록/관리자 페이지</p> <p>html, css, js, php English paper</p>
2003047 서선아	frontend & backend	<p>ER diagram sql script</p> <p>음식점목록/음식점상세/메뉴/주문하기 페이지</p> <p>html, css, js, php ppt</p>
1842070 성수하	frontend	<p>Project Proposal</p> <p>음식점목록/음식점상세/메뉴/주문하기 페이지</p> <p>css, html, js presentation</p>
2071088 양가현	frontend & backend	<p>sql script</p> <p>홈페이지/회원가입/리뷰작성/리뷰목록/관리자 페이지</p> <p>html, css, js, php English paper Demo video</p>
All		Report 작성