

Project Final Report

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Application: Restaurant Rating Application

Video Demonstration Link : https://youtu.be/gE8pa0Prq_w

Code and database dump: <https://github.com/gahyun8876/CSE412>

Queries used for searching: (bold and underlined parts are user inputs)

Search for restaurant:

```
SELECT DISTINCT restaurant.restaurant_id, restaurant.restaurant_name, restaurant.address,
restaurant.average_cost, restaurant.customer_rating
FROM restaurant INNER JOIN (menu INNER JOIN food ON menu.menu_id = food.menu_id AND
menu.restaurant_id = food.restaurant_id) ON restaurant.restaurant_id = menu.restaurant_id AND
restaurant.restaurant_id = food.restaurant_id AND menu.menu_id = food.menu_id
WHERE restaurant.restaurant_name LIKE '%Restaurant Name%'
AND restaurant.address LIKE '%Restaurant Address%'
AND menu.food_type LIKE '%Food Type%'
AND restaurant.customer_rating > Rating
AND restaurant.average_cost < Average Cost
AND food.food_name '%Food Name%';
```

Get average rating:

```
SELECT AVG(score) FROM rating WHERE rating.restaurant_id = 'Restaurant ID';
```

Count rating:

```
SELECT COUNT(DISTINCT phone_number) FROM rating WHERE rating.restaurant_id = 'Restaurant ID';
```

Queries used for updates: (bold and underlined parts are user inputs)

Delete existing rating:

```
DELETE FROM rating WHERE phone_number = 'Phone Number' AND restaurant_id = 'Restaurant ID';
```

Add new rating:

```
INSERT INTO rating(phone_number, restaurant_id, score) VALUES('Phone Number', 'Restaurant ID',
Score);
```

Update average rating for restaurant:

With subquery AS (

```
    SELECT AVG(score) AS average FROM rating INNER JOIN restaurant
    ON rating.restaurant_id = restaurant.restaurant_id
    WHERE rating.restaurant_id = 'Restaurant ID')
UPDATE restaurant SET customer_rating = subquery.average FROM subquery
WHERE restaurant_id = 'Restaurant ID';
```

Add new user:

```
INSERT INTO users(phone_number) VALUES('Phone Number');
```

User Manual For Restaurant Rating Application

There are 2 parts of main functions.

1. Searching a restaurant function

- a. Users can search for a restaurant by several conditions.
 - Restaurant Name
 - Restaurant Address
 - Food Type
 - Average Rating
 - Average Cost
 - Food Name
- b. Users also can search for restaurants with more than one condition.
- c. Users can search for restaurants with keywords instead of the full name of the restaurant food.
- d. After users type information on the section that they want to search with, click the 'Search a restaurant' button.
- e. Users have to enter their phone number when searching if they want to rate a restaurant.

2. Rating a restaurant function

- a. Users have to select a restaurant.
- b. Users select a score in order to rate a restaurant.
 - Scale : (Poor) 1 - 5 (Wonderful)
- c. Users click the 'Submit Review' button.
- d. If a user rates a restaurant multiple times, the latest record will be used to calculate the average rating of the restaurant and older records will be deleted.
- e. The new user's phone number will be added to the users list when they rate a restaurant.

< Searching >

- Search by using single condition:
 - > Search with Restaurant Name

- > Search with Restaurant Address

-> Search with Food Type

Restaurant Search ×

Restaurant Review

Restaurant found

Restaurant Name

Address

Food Type

Sandwich

Rating greater than

Cost lower than

Food Name

Phone Number

Search a Restaurant

Sandwich:

Filet O Fish, price: \$5.59

Chicken:

4 Piece McNuggets, price: \$3.19

6 Piece McNuggets, price: \$4.99

Beverage:

Medium Hi-C Orange, price: \$1.0

Medium Coke, price: \$1.0

Restaurant Name: Shawarma Paradise

Restaurant Address: 1045 E Lemon St, Tempe

Customer Rating: 4.26

Number of Reviews: 9

Average Cost: 10.00

Sandwich:

Chicken Shawarma Sandwich, price: \$5.99

- > Search with average rating of a restaurant

Restaurant Search ×

Restaurant Review

Restaurant found

Restaurant Name

Address

Food Type

Rating greater than

4.2

Cost lower than

Food Name

Phone Number

Search a Restaurant

Restaurant Name: Thai Basil

Restaurant Address: 1111 S Rural Rd, Tempe

Customer Rating: 4.51

Number of Reviews: 9

Average Cost: 20.00

Noodle:

Pad Thai, price: \$16.95

Chow Mein, price: \$16.95

Spicy Noodles, price: \$16.95

Drunken Noodles, price: \$16.95

Rice:

Thai Fried Rice, price: \$16.95

Spicy Fried Rice, price: \$16.95

Pineapple Fried Rice, price: \$16.95

Curry:

Red Curry, price: \$16.95

Green Curry, price: \$16.95

Yellow Curry, price: \$16.95

- > Search with average cost of food

Restaurant Search X

Restaurant Review

Restaurant found

Restaurant Name

Address

Food Type

Rating greater than

Cost lower than

Food Name

Phone Number

Search a Restaurant

Restaurant Name: McDonald

Restaurant Address: 1205 S Rural Rd, Tempe

Customer Rating: 4.11

Number of Reviews: 14

Average Cost: 10.00

Burger:

Big Mac, price: \$6.29

Cheeseburger, price: \$2.49

Sandwich:

Filet O Fish, price: \$5.59

Chicken:

4 Piece McNuggets, price: \$3.19

6 Piece McNuggets, price: \$4.99

Beverage:

Medium Hi-C Orange, price: \$1.0

Medium Coke, price: \$1.0

-> Search with Food Name

Restaurant Search X

Restaurant Review

Restaurant found

Restaurant Name

Address

Food Type

Rating greater than

Cost lower than

Food Name

Phone Number

Search a Restaurant

Restaurant Name: Thai Basil

Restaurant Address: 1111 S Rural Rd, Tempe

Customer Rating: 4.51

Number of Reviews: 9

Average Cost: 20.00

Noodle:

Pad Thai, price: \$16.95

Chow Mein, price: \$16.95

Spicy Noodles, price: \$16.95

Drunken Noodles, price: \$16.95

Rice:

Thai Fried Rice, price: \$16.95

Spicy Fried Rice, price: \$16.95

Pineapple Fried Rice, price: \$16.95

Curry:

Red Curry, price: \$16.95

Green Curry, price: \$16.95

Yellow Curry, price: \$16.95

- Search by using keywords:

-> Search with name of a restaurant

The screenshot shows a web application titled "Restaurant Search & Review Apps". It has two tabs: "Restaurant Search" (active) and "Restaurant Review". The search form on the left includes fields for Restaurant Name, Address, Food Type, Rating greater than, Cost lower than, Food Name, and Phone Number. The "Restaurant Name" field contains "Mc". A "Search a Restaurant" button is at the bottom. The results on the right show details for McDonald's, including its address, rating, number of reviews, average cost, and a list of menu items with prices.

Field	Value
Restaurant Name	McDonald
Restaurant Address	1205 S Rural Rd, Tempe
Customer Rating	4.11
Number of Reviews	14
Average Cost	10.00
Burger	
Big Mac, price	\$6.29
Cheeseburger, price	\$2.49
Sandwich	
Filet O Fish, price	\$5.59
Chicken	
4 Piece McNuggets, price	\$3.19
6 Piece McNuggets, price	\$4.99
Beverage	
Medium Hi-C Orange, price	\$1.0
Medium Coke, price	\$1.0

-> Search with name of food name

The screenshot shows the same web application with the "Restaurant Search" tab active. The "Food Name" field now contains "Thai". The results on the right show details for Thai Basil, including its address, rating, number of reviews, average cost, and a list of menu items with prices.

Field	Value
Restaurant Name	Thai Basil
Restaurant Address	1111 S Rural Rd, Tempe
Customer Rating	4.51
Number of Reviews	9
Average Cost	20.00
Noodle	
Pad Thai, price	\$16.95
Chow Mein, price	\$16.95
Spicy Noodles, price	\$16.95
Drunken Noodles, price	\$16.95
Rice	
Thai Fried Rice, price	\$16.95
Spicy Fried Rice, price	\$16.95
Pineapple Fried Rice, price	\$16.95
Curry	
Red Curry, price	\$16.95
Green Curry, price	\$16.95
Yellow Curry, price	\$16.95

- Search by using multiple conditions:

Restaurant Search & Review Apps

Restaurant Search × Restaurant Review

Restaurant found

Restaurant Name:

Address:

Food Type:

Rating greater than:

Cost lower than:

Food Name:

Phone Number:

Restaurant Name: Shawarma Paradise
 Restaurant Address: 1045 E Lemon St, Tempe
 Customer Rating: 4.26
 Number of Reviews: 9
 Average Cost: 10.00

Sandwich:
 Chicken Shawarma Sandwich, price: \$5.99
 Beef Shawarma Sandwich, price: \$6.49

Platter:
 Chicken Shawarma Platter, price: \$9.49
 Beef Shawarma Platter, price: \$9.99

< Rating >

-> Before rating:

- Type information in one of the following conditions you want to search and your phone number.

Restaurant Search & Review Apps

Restaurant Search × Restaurant Review

Restaurant found

Restaurant Name:

Address:

Food Type:

Rating greater than:

Cost lower than:

Food Name:

Phone Number:

Restaurant Name: McDonald
 Restaurant Address: 1205 S Rural Rd, Tempe
 Customer Rating: 4.11
 Number of Reviews: 14
 Average Cost: 10.00

Burger:
 Big Mac, price: \$6.29
 Cheeseburger, price: \$2.49

Sandwich:
 Filet O Fish, price: \$5.59

Chicken:
 4 Piece McNuggets, price: \$3.19
 6 Piece McNuggets, price: \$4.99

Beverage:
 Medium Hi-C Orange, price: \$1.0
 Medium Coke, price: \$1.0

- Go to 'Restaurant Review' page, select restaurant and score, and click 'Submit Review' button.

Restaurant Search & Review Apps

Restaurant Search Restaurant Review X

Restaurant Name: McDonald
Restaurant Address: 1205 S Rural Rd, Tempe
Customer Rating: 4.11
Number of Reviews: 14
Average Cost: 10.00

Burger:
Big Mac, price: \$6.29
Cheeseburger, price: \$2.49

Sandwich:
Filet O Fish, price: \$5.59

Chicken:
4 Piece McNuggets, price: \$3.19
6 Piece McNuggets, price: \$4.99

☐ 1 Poor ☐ 2 Fair ☐ 3 Average ☐ 4 Good ☐ 5 Wonderful

Submit Review

-> After rating: 'Number of Review' is increased by 1 and 'Customer Rating' is recalculated.

Restaurant Search & Review Apps

Restaurant Search Restaurant Review X

Restaurant Name: McDonald
Restaurant Address: 1205 S Rural Rd, Tempe
Customer Rating: 4.17
Number of Reviews: 15
Average Cost: 10.00

Burger:
Big Mac, price: \$6.29
Cheeseburger, price: \$2.49

Sandwich:
Filet O Fish, price: \$5.59

Chicken:
4 Piece McNuggets, price: \$3.19
6 Piece McNuggets, price: \$4.99

☐ 1 Poor ☐ 2 Fair ☐ 3 Average ☐ 4 Good ☒ 5 Wonderful

Submit Review