Title: DB Assignment 2

Date: September 30,2025

Objective:

Write a SQL query to answer each of the following:

1. Average Price of Foods at Each Restaurant

```
4     -- Query 1: Finding the average price of foods at each restaurant
5
6     select restaurants.name, avg(foods.price) as avgprice
7     from restaurants  inner join serves on(restaurants.restID = serves.restID)
8                       inner join foods on (foods.foodID = serves.foodID)
9     group by restaurants.name
10    order by avgprice;
11
12
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	avgprice
Taco Town	9.5
Sushi Haven	12
Thai Delight	12
La Trattoria	13.5
Bistro Paris	13.5
Indian Spice	13.5

The query shows the average price of foods at each restaurant. It solves the problem by utilizing inner join with an on clause to manually link the primary keys in the restaurants table with the serves table and foods table. The restaurant name as well as the average price (which was calculated using the avg aggregate function) of the foods served at each restaurant is then shown in the resulting table which was ordered by the average price in ascending order.

2. Maximum Food Price at Each Restaurant

```
13      -- Query 2: Finding the maximum food price at each restaurant
14
15      select restaurants.name, max(foods.price) as MaxPrice
16      from restaurants inner join serves on (restaurants.restID = serves.restID)
17                       inner join foods on (foods.foodID = serves.foodID)
18      group by restaurants.name
19      order by max(foods.price);
20
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	MaxPrice
Taco Town	11
Thai Delight	13
Sushi Haven	14
La Trattoria	15
Indian Spice	15
Bistro Paris	18

This query looks to find the maximum food price at each restaurant. The problem was solved similarly to the last one by using inner join with an on clause to specifically link the primary key in the restaurants table with the serves table and the foods table. The resulting table shows the restaurant name as well as the max price of the food price at each restaurant (which was calculated using the max aggregate function), and is ordered by the max price in ascending order.

3. Count of Different Food Types Served at Each Restaurant

```
21    -- Query 3: Counting the different food types served at each restaurant
22
23 •  select restaurants.name, count(foods.type) as Types_Served
24    from restaurants cross join serves
25                     cross join foods
26    where restaurants.restID = serves.restID and foods.foodID = serves.foodID
27    group by restaurants.name;
28
29
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	Types_Served
La Trattoria	2
Sushi Haven	2
Taco Town	2
Bistro Paris	2
Thai Delight	2
Indian Spice	2

The third query's goal is to count the different food types served at each restaurant. It was solved using cross join to combine the restaurants table with serves and foods table. The resulting table displays the restaurant name as well as the number of food types served (which was calculated using the count aggregate function.

4. Average Price of Foods Served by Each Chef

```
29      -- Query 4: Finding average price of foods served by each chef
30
31  •   select chefs.name, avg(foods.price) as AVGPrice
32      from chefs inner join works using(chefID)
33                 inner join serves using(restID)
34                 inner join foods using(foodID)
35      group by chefs.name
36      order by AVGPrice;
37
38
39
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	AVGPrice
John Doe	11.5
Alice Johnson	11.5
Jane Smith	12.75
Robert Brown	12.75
Emily Davis	12.75
Michael Wilson	12.75

The fourth query aims to find the average price of foods served by each chef. This was done by using inner join with using clause to combine the chefs table with the works, serves, and foods table. The resulting table shows the name of the chefs as well as the average price of foods they served (which was calculated using the avg function).

5. Find the Restaurant with the Highest Average Food Price

```
38    -- Query 5: Finding the restaurant with the highest average food price
39
40    select restaurants.name, avg(foods.price)
41    from restaurants  inner join serves on(restaurants.restID = serves.restID)
42                      inner join foods on (foods.foodID = serves.foodID)
43    group by restaurants.name
44    having avg(foods.price) >=all
45           (Select avg(foods.price)
46           from restaurants  inner join serves on(restaurants.restID = serves.restID)
47                             inner join foods on (foods.foodID = serves.foodID)
48                             group by restaurants.name);
49
50
51
52
53
54
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

name	avg(foods.price)
La Trattoria	13.5
Bistro Paris	13.5
Indian Spice	13.5

The last query aims to find the restaurant with the highest average food price. This was solved using inner join with an on clause to combine the restaurants table with the serves and foods tables. A subquery was then used to compare the average food prices and return the highest average food price. The resulting table shows the names of the restaurants with the highest average food price.