

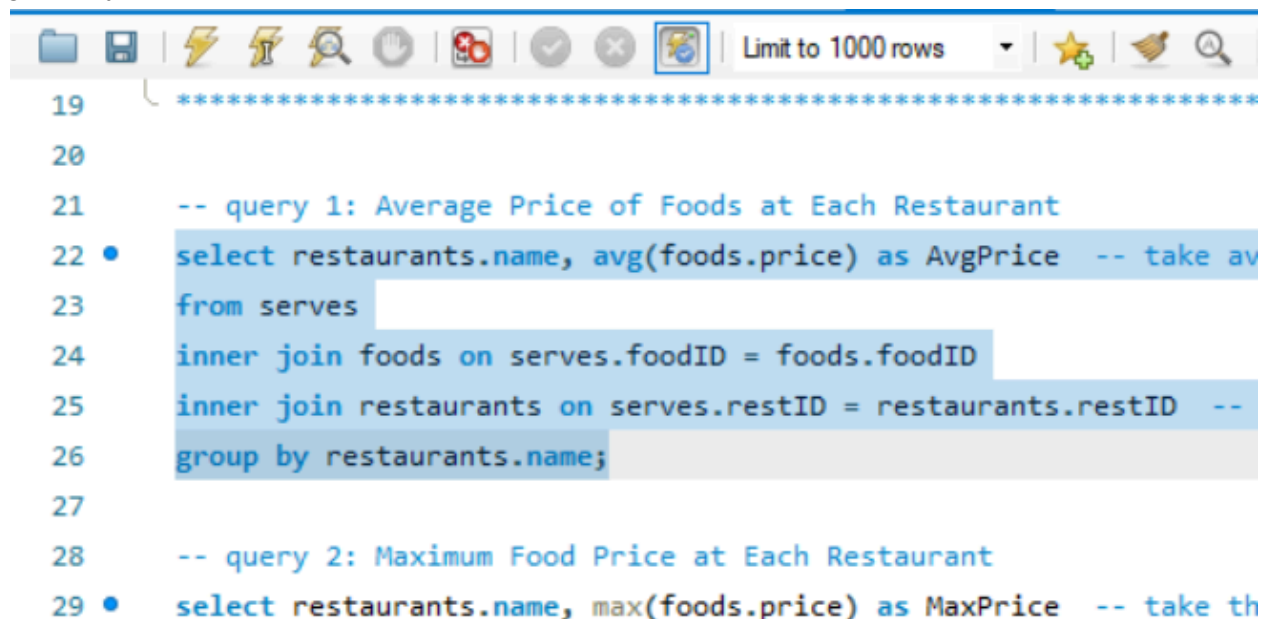
Title Page

- **Title:** DB Assignment 2
- **Your Name:** Kenny Chau
- **Date:** 9/26/2024

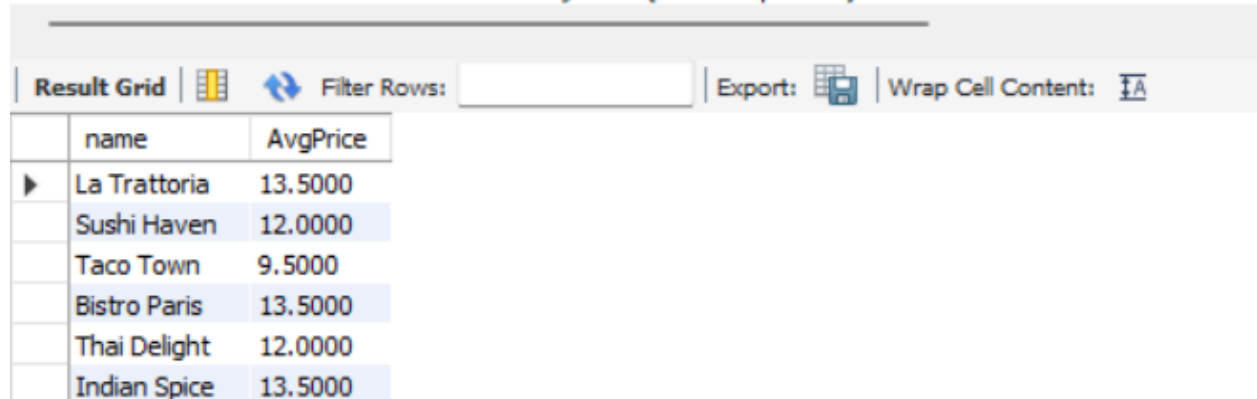
Query 1: Average Price of Foods at Each Restaurant

Query select the restaurants and find the average of each food item for each restaurant. Use the inner joins to connect restaurants and foods tables through serves by its foodID and restID. Displays average price of food through restaurants' names.

```
select restaurants.name, avg(foods.price) as AvgPrice -- take average of place each food with
its respective restaurant
from serves
inner join foods on serves.foodID = foods.foodID
inner join restaurants on serves.restID = restaurants.restID -- both inner joins to connect
restaurants and foods
group by restaurants.name;
```



```
19 *****
20
21 -- query 1: Average Price of Foods at Each Restaurant
22 • select restaurants.name, avg(foods.price) as AvgPrice -- take av
23 from serves
24 inner join foods on serves.foodID = foods.foodID
25 inner join restaurants on serves.restID = restaurants.restID --
26 group by restaurants.name;
27
28 -- query 2: Maximum Food Price at Each Restaurant
29 • select restaurants.name, max(foods.price) as MaxPrice -- take th
```



	name	AvgPrice
▶	La Trattoria	13.5000
	Sushi Haven	12.0000
	Taco Town	9.5000
	Bistro Paris	13.5000
	Thai Delight	12.0000
	Indian Spice	13.5000

Query 2: Maximum Food Price at Each Restaurant

Query selects the restaurants and the max priced food item from each restaurant. Use inner join to join restaurants and foods tables through serves table with foodID and restID. Display results with restaurants' names.

```
select restaurants.name, max(foods.price) as MaxPrice -- take the max of place each food with  
its respective restaurant  
from serves  
inner join foods on serves.foodID = foods.foodID  
inner join restaurants on serves.restID = restaurants.restID -- both inner joins to connect  
restaurants and foods  
group by restaurants.name;
```

```
27  
28 -- query 2: Maximum Food Price at Each Restaurant  
29 • select restaurants.name, max(foods.price) as MaxPrice -- take t  
30 from serves  
31 inner join foods on serves.foodID = foods.foodID  
32 inner join restaurants on serves.restID = restaurants.restID --  
33 group by restaurants.name;  
34  
35 -- query 3 Count of Different Food Types Served at Each Restaura
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	name	MaxPrice			
▶	La Trattoria	15			
	Sushi Haven	14			
	Taco Town	11			
	Bistro Paris	18			
	Thai Delight	13			
	Indian Spice	15			

Query 3: Count of Different Food Types Served at Each Restaurant

Query selects restaurants and counts distinct food types of each restaurant. Use inner join to connect restaurants and foods tables through serves table with foodID and restID. Display results through restaurants' names.

```
select restaurants.name, count(distinct foods.type) as FoodTypes
from serves
inner join foods on serves.foodID = foods.foodID
inner join restaurants on serves.restID = restaurants.restID
group by restaurants.name;
```

```
34
35 -- query 3 Count of Different Food Types Served at Each Restaurant
36 • select restaurants.name, count(distinct foods.type) as FoodTypes --
37 from serves
38 inner join foods on serves.foodID = foods.foodID
39 inner join restaurants on serves.restID = restaurants.restID -- both
40 group by restaurants.name;
41
42 -- query 4 Average Price of Foods Served by Each Chef
43 • select chefs.name, avg(foods.price) -- Calculate the average price o
44 from works
```

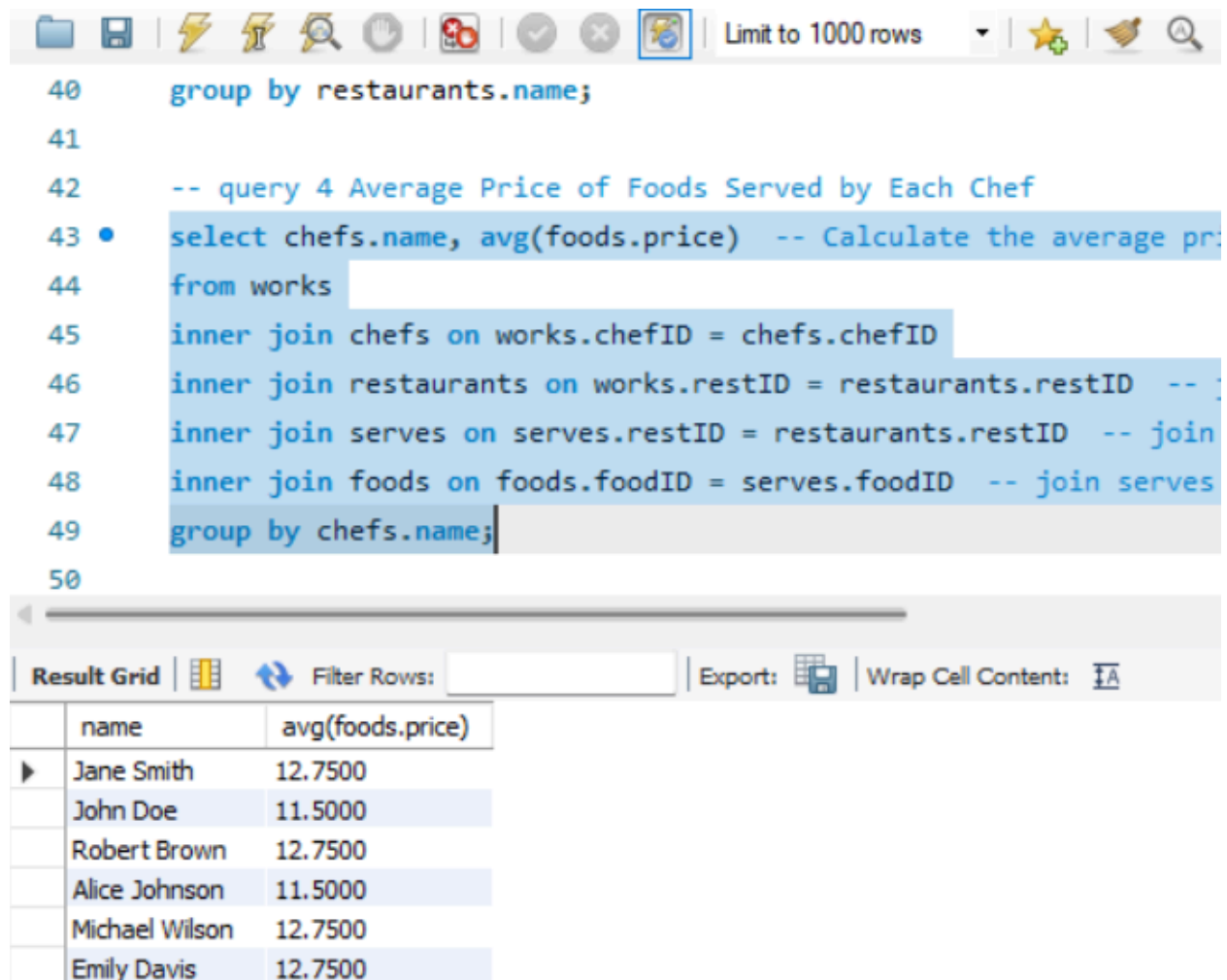
Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	name	FoodTypes			
▶	Bistro Paris	1			
	Indian Spice	1			
	La Trattoria	1			
	Sushi Haven	2			
	Taco Town	1			
	Thai Delight	1			

Export recordset to an external file

Query 4: Average Price of Foods Served by Each Chef

Query selects the chefs name and the average food price of each restaurant that the chef has worked at. Join chef and restaurants table through works with chefID and restID. Join restaurants with serves tables with restID. Finally foods table with serves tables through foodID and restID. Display results through chefs' names with corresponding .

```
select chefs.name, avg(foods.price)
inner join chefs on works.chefID = chefs.chefID
inner join restaurants on works.restID = restaurants.restID
inner join serves on serves.restID = restaurants.restID
inner join foods on foods.foodID = serves.foodID
group by chefs.name;
```



The screenshot shows a SQL query editor with a toolbar at the top. The query is as follows:

```
40 group by restaurants.name;
41
42 -- query 4 Average Price of Foods Served by Each Chef
43 • select chefs.name, avg(foods.price) -- Calculate the average price
44 from works
45 inner join chefs on works.chefID = chefs.chefID
46 inner join restaurants on works.restID = restaurants.restID -- join
47 inner join serves on serves.restID = restaurants.restID -- join
48 inner join foods on foods.foodID = serves.foodID -- join serves
49 group by chefs.name;
50
```

Below the query editor, the results are displayed in a table with the following data:

	name	avg(foods.price)
▶	Jane Smith	12.7500
	John Doe	11.5000
	Robert Brown	12.7500
	Alice Johnson	11.5000
	Michael Wilson	12.7500
	Emily Davis	12.7500

Query 5: Find the Restaurant with the Highest Average Food Price

Query selects the restaurants' names and the average price of food for each restaurant. Join food and restaurants tables with serves. Once the groups have been made of each restaurant with their average food cost. Create a subquery that selects the average price of foods of each restaurant. Compare the results between the main query and subquery and find restaurants with the highest average food price. Display results through restaurants.

```
select restaurants.name, avg(foods.price) as MaxPrice
from serves
inner join foods on serves.foodID = foods.foodID
inner join restaurants on serves.restID = restaurants.restID
group by restaurants.name
having (MaxPrice) >= all
```

```
(select avg(foods.price)
from serves
inner join foods on serves.foodID = foods.foodID
inner join restaurants on serves.restID = restaurants.restID
group by restaurants.name);
```

```
51      -- query 5 Find the Restaurant with the Highest Average Food Price
52 •    select restaurants.name, avg(foods.price) as MaxPrice
53      from serves
54      inner join foods on serves.foodID = foods.foodID
55      inner join restaurants on serves.restID = restaurants.restID
56      group by restaurants.name
57      having (MaxPrice) >= all -- condition to find the MaxPrice by
58
59      form a subquery here create groups to compare to the Max
```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	name	MaxPrice		
▶	La Trattoria	13.5000		
	Bistro Paris	13.5000		
	Indian Spice	13.5000		

Query 6

Query the chefs name, and take all restaurants that the chef works at and concatenates them into one string. Distinct is used to ensure the restaurant does not show up twice. Additionally, we select the average of each food item a chef cooks. We join all tables and group the data by each chef and order by descending order.

```
select chefs.name,  
group_concat(distinct restaurants.name separator ', ') as RestName, -- finds where each chef  
works at and use distinct as restaurants shows up twice  
avg(foods.price) as AvgPrice -- Calculate the average price of food each chef makes  
from works  
inner join chefs on works.chefID = chefs.chefID  
inner join restaurants on works.restID = restaurants.restID -- join chefs to restaurants through  
works table  
inner join serves on serves.restID = restaurants.restID -- join restaurants table with serves table  
inner join foods on foods.foodID = serves.foodID -- join serves to foods table  
group by chefs.name  
order by AvgPrice desc;
```

```
67 • select chefs.name,  
68 group_concat(distinct restaurants.name separator ', ') as RestName, -- finds where each chef works at and use distinct a  
69 avg(foods.price) as AvgPrice -- Calculate the average price of food each chef makes  
70 from works  
71 inner join chefs on works.chefID = chefs.chefID  
72 inner join restaurants on works.restID = restaurants.restID -- join chefs to restaurants through works table  
73 inner join serves on serves.restID = restaurants.restID -- join restaurants table with serves table  
74 inner join foods on foods.foodID = serves.foodID -- join serves to foods table  
75 group by chefs.name  
76 order by AvgPrice desc;  
77
```

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

	name	RestName	AvgPrice
▶	Emily Davis	Indian Spice, Thai Delight	12.7500
	Jane Smith	La Trattoria, Sushi Haven	12.7500
	Michael Wilson	Indian Spice, Thai Delight	12.7500
	Robert Brown	Bistro Paris, Sushi Haven	12.7500
	Alice Johnson	Bistro Paris, Taco Town	11.5000
	John Doe	La Trattoria, Taco Town	11.5000

Result 16 x Read Only