

• Database Task

- I used MySQL Workbench 8.0 CE to connect to MySQL Server and import the excel sheet easily.

○ Import dataset

- After importing the excel file the imported data shown as below

The screenshot shows the MySQL Workbench interface. The 'Schemas' pane on the left shows the 'coffe_shop' database selected, with the 'drinkmenu' table highlighted. The 'Query' pane in the center shows a SQL query: `SELECT * FROM coffe_shop.drinkmenu;`. The 'Result Grid' pane displays the data from the 'drinkmenu' table. The 'Output' pane at the bottom shows the execution of the query, indicating that 218 rows were returned.

Beverage_category	Beverage	Beverage_prep	Calories	Total Fat (g)	Trans Fat (g)	Saturated Fat (g)	Sodium (mg)	Total Carbohydrates (g)
Coffee	Brewed Coffee	Short	3	0.1	0	0	0	5
Coffee	Brewed Coffee	Tall	4	0.1	0	0	0	10
Coffee	Brewed Coffee	Grande	5	0.1	0	0	0	10
Coffee	Brewed Coffee	Venti	5	0.1	0	0	0	10
Classic Espresso Drinks	Caffè Latte	Short Nonfat Milk	70	0.1	0.1	0	5	75
Classic Espresso Drinks	Caffè Latte	2% Milk	100	3.5	2	0.1	15	85
Classic Espresso Drinks	Caffè Latte	Soymilk	70	2.5	0.4	0	0	65
Classic Espresso Drinks	Caffè Latte	Tall Nonfat Milk	100	0.2	0.2	0	5	120
Classic Espresso Drinks	Caffè Latte	2% Milk	150	6	3	0.2	25	135
Classic Espresso Drinks	Caffè Latte	Soymilk	110	4.5	0.5	0	0	105
Classic Espresso Drinks	Caffè Latte	Grande Nonfat Milk	130	0.3	0.2	0	5	150
Classic Espresso Drinks	Caffè Latte	2% Milk	190	7	3.5	0.2	30	170
Classic Espresso Drinks	Caffè Latte	Soymilk	150	4	0.4	0	0	120

○ Which drink has the highest calories from the dataset?

- First, get the maximum calorie in “Calories” column using aggregate function.
- But the return will be the maximum value, to know this value belong to any Beverage go to next step.
- Then, compare each Beverage in the original table with the max to find the maximum.

Limit to 1000 rows

```

1 • SELECT Beverage_category, Beverage, Beverage_prep, Calories FROM coffe_shop.drinkmenu
2 where (select max(Calories) from coffe_shop.drinkmenu) = Calories;

```

Result Grid

Beverage_category	Beverage	Beverage_prep	Calories
Signature Espresso Drinks	White Chocolate Mocha (Without Whipped Cream)	2% Milk	510

- The maximum calorie is 510 and belong to “Signature Espresso Drinks White Chocolate Mocha (Without Whipped Cream) 2% Milk”.

- **What is the average calorie amount for each drink category?**

- To apply this query, I will use aggregate function “avg” grouped by “Beverage_category”

Limit to 1000 rows

```

1 • SELECT Beverage_category, avg(Calories) FROM coffe_shop.drinkmenu
2 group by Beverage_category;

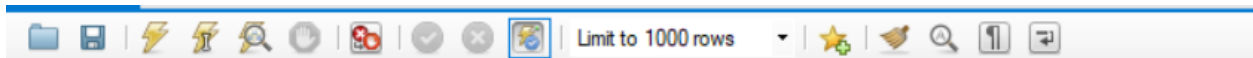
```

Result Grid

Beverage_category	avg(Calories)
Coffee	4.2500
Classic Espresso Drinks	140.1724
Signature Espresso Drinks	250.0000
Tazo® Tea Drinks	206.6667
Shaken Iced Beverages	112.5000
Smoothies	282.5000
Frappuccino® Blended Coffee	276.9444
Frappuccino® Light Blended Coffee	162.5000
Frappuccino® Blended Crème	225.8333

- **Which drinks have below average calorie amount?**

- I used WITH-Clause to use the previous query as temp table to use it in this query.
- Check each calorie in the original table if lower than its corresponding category average calorie or not.
- If yes, show it but if no don't show.



```
1 • with big_Avg as
2 (SELECT Beverage_category, avg(Calories) as Avg_Cal
3 FROM coffe_shop.drinkmenu
4 group by Beverage_category)
5 select d.beverage_category, d.beverage, d.beverage_prep, d.calories
6 from coffe_shop.drinkmenu as d, big_Avg as v
7 where d.Beverage_category = v.beverage_category and d.Calories < v.Avg_Cal;
```

beverage_category	beverage	beverage_prep	calories
Coffee	Brewed Coffee	Tall	4
Coffee	Brewed Coffee	Short	3
Classic Espresso Drinks	Skinny Latte (Any Flavour)	Grande Nonfat Milk	120
Classic Espresso Drinks	Skinny Latte (Any Flavour)	Tall Nonfat Milk	100
Classic Espresso Drinks	Skinny Latte (Any Flavour)	Short Nonfat Milk	60
Classic Espresso Drinks	Espresso	Doppio	10
Classic Espresso Drinks	Espresso	Solo	5
Classic Espresso Drinks	Cappuccino	Soymilk	120
Classic Espresso Drinks	Cappuccino	Venti Nonfat Milk	110
Classic Espresso Drinks	Cappuccino	Soymilk	100
Classic Espresso Drinks	Cappuccino	2% Milk	120
Classic Espresso Drinks	Cappuccino	Grande Nonfat Milk	80
Classic Espresso Drinks	Cappuccino	Soymilk	70
Classic Espresso Drinks	Cappuccino	2% Milk	90
Classic Espresso Drinks	Cappuccino	Tall Nonfat Milk	60
Classic Espresso Drinks	Cappuccino	Soymilk	50
Classic Espresso Drinks	Cappuccino	2% Milk	80
Classic Espresso Drinks	Cappuccino	Short Nonfat Milk	50
Classic Espresso Drinks	Caff�� Americano	Venti	25
Classic Espresso Drinks	Caff�� Americano	Grande	15
Classic Espresso Drinks	Caff�� Americano	Tall	10
Classic Espresso Drinks	Caff�� Americano	Short	5
Classic Espresso Drinks	Vanilla Latte (Or Other Fla...	Soymilk	110

beverage_category	beverage	beverage_prep	calories
Classic Espresso Drinks	Vanilla Latte (Or Other Fla...	2% Milk	130
Classic Espresso Drinks	Vanilla Latte (Or Other Fla...	Short Nonfat Milk	100
Classic Espresso Drinks	Caff�� Mocha (Without ...	Soymilk	110
Classic Espresso Drinks	Caff�� Mocha (Without ...	2% Milk	130
Classic Espresso Drinks	Caff�� Mocha (Without ...	Short Nonfat Milk	110
Classic Espresso Drinks	Caff�� Latte	Grande Nonfat Milk	130
Classic Espresso Drinks	Caff�� Latte	Soymilk	110
Classic Espresso Drinks	Caff�� Latte	Tall Nonfat Milk	100
Classic Espresso Drinks	Caff�� Latte	Soymilk	70
Classic Espresso Drinks	Caff�� Latte	2% Milk	100
Classic Espresso Drinks	Caff�� Latte	Short Nonfat Milk	70
Signature Espresso Dr...	Caramel Apple Spice (Wit...	Tall	210
Signature Espresso Dr...	Caramel Apple Spice (Wit...	Short	140
Signature Espresso Dr...	Hot Chocolate (Without ...	Grande Nonfat Milk	240
Signature Espresso Dr...	Hot Chocolate (Without ...	Soymilk	200
Signature Espresso Dr...	Hot Chocolate (Without ...	2% Milk	230
Signature Espresso Dr...	Hot Chocolate (Without ...	Tall Nonfat Milk	190
Signature Espresso Dr...	Hot Chocolate (Without ...	Soymilk	130
Signature Espresso Dr...	Hot Chocolate (Without ...	2% Milk	150
Signature Espresso Dr...	Hot Chocolate (Without ...	Short Nonfat Milk	130
Signature Espresso Dr...	White Chocolate Mocha (...	Soymilk	180
Signature Espresso Dr...	White Chocolate Mocha (...	2% Milk	200
Signature Espresso Dr...	White Chocolate Mocha (...	Short Nonfat Milk	180

beverage_category	beverage	beverage_prep	calories
Signature Espresso Dr...	Caramel Macchiato	Venti Nonfat Milk	240
Signature Espresso Dr...	Caramel Macchiato	Soymilk	200
Signature Espresso Dr...	Caramel Macchiato	2% Milk	240
Signature Espresso Dr...	Caramel Macchiato	Grande Nonfat Milk	190
Signature Espresso Dr...	Caramel Macchiato	Soymilk	150
Signature Espresso Dr...	Caramel Macchiato	2% Milk	180
Signature Espresso Dr...	Caramel Macchiato	Tall Nonfat Milk	140
Signature Espresso Dr...	Caramel Macchiato	Soymilk	100
Signature Espresso Dr...	Caramel Macchiato	2% Milk	120
Signature Espresso Dr...	Caramel Macchiato	Short Nonfat Milk	100
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	Venti Nonfat Milk	190
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	Soymilk	170
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	2% Milk	190
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	Grande Nonfat Milk	150
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	Soymilk	130
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	2% Milk	140
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	Tall Nonfat Milk	120
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	Soymilk	80
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	2% Milk	90
Tazo�� Tea Drinks	Tazo�� Full-Leaf Red Te...	Short Nonfat Milk	80
Tazo�� Tea Drinks	Tazo�� Green Tea Latte	Soymilk	140
Tazo�� Tea Drinks	Tazo�� Green Tea Latte	2% Milk	170
Tazo�� Tea Drinks	Tazo�� Green Tea Latte	Short Nonfat Milk	130

beverage_category	beverage	beverage_prep	calories
Tazo�� Tea Drinks	Tazo�� Chai Tea Latte	Soymilk	160
Tazo�� Tea Drinks	Tazo�� Chai Tea Latte	2% Milk	190
Tazo�� Tea Drinks	Tazo�� Chai Tea Latte	Tall Nonfat Milk	160
Tazo�� Tea Drinks	Tazo�� Chai Tea Latte	Soymilk	110
Tazo�� Tea Drinks	Tazo�� Chai Tea Latte	2% Milk	120
Tazo�� Tea Drinks	Tazo�� Chai Tea Latte	Short Nonfat Milk	100
Shaken Iced Beverages	Shaken Iced Tazo�� Tea...	Tall	60
Shaken Iced Beverages	Iced Brewed Coffee (With...	Soymilk	110
Shaken Iced Beverages	Iced Brewed Coffee (With...	Grande Nonfat Milk	110
Shaken Iced Beverages	Iced Brewed Coffee (With...	Soymilk	80
Shaken Iced Beverages	Iced Brewed Coffee (With...	Tall Nonfat Milk	80
Shaken Iced Beverages	Iced Brewed Coffee (With...	Grande	90
Shaken Iced Beverages	Iced Brewed Coffee (With...	Tall	60
Smoothies	Orange Mango Banana S...	Soymilk	270
Smoothies	Orange Mango Banana S...	2% Milk	270
Smoothies	Orange Mango Banana S...	Grande Nonfat Milk	260
Frappuccino�� Blend...	Java Chip (Without Whipp...	Soymilk	220
Frappuccino�� Blend...	Java Chip (Without Whipp...	Whole Milk	240
Frappuccino�� Blend...	Java Chip (Without Whipp...	Tall Nonfat Milk	220
Frappuccino�� Blend...	Caramel (Without Whippe...	Soymilk	260
Frappuccino�� Blend...	Caramel (Without Whippe...	Soymilk	180
Frappuccino�� Blend...	Caramel (Without Whippe...	Whole Milk	200
Frappuccino�� Blend...	Caramel (Without Whippe...	Tall Nonfat Milk	180

beverage_category	beverage	beverage_prep	calories
Frappuccino® Blend...	Mocha (Without Whipped ...	Grande Nonfat Milk	260
Frappuccino® Blend...	Mocha (Without Whipped ...	Soymilk	180
Frappuccino® Blend...	Mocha (Without Whipped ...	Whole Milk	200
Frappuccino® Blend...	Mocha (Without Whipped ...	Tall Nonfat Milk	180
Frappuccino® Blend...	Coffee	Soymilk	220
Frappuccino® Blend...	Coffee	Whole Milk	240
Frappuccino® Blend...	Coffee	Grande Nonfat Milk	220
Frappuccino® Blend...	Coffee	Soymilk	160
Frappuccino® Blend...	Coffee	Whole Milk	180
Frappuccino® Blend...	Coffee	Tall Nonfat Milk	160
Frappuccino® Light ...	Java Chip	Tall Nonfat Milk	150
Frappuccino® Light ...	Caramel	Grande Nonfat Milk	150
Frappuccino® Light ...	Caramel	Tall Nonfat Milk	100
Frappuccino® Light ...	Mocha	Grande Nonfat Milk	150
Frappuccino® Light ...	Mocha	Tall Nonfat Milk	110
Frappuccino® Light ...	Coffee	Venti Nonfat Milk	160
Frappuccino® Light ...	Coffee	Grande Nonfat Milk	120
Frappuccino® Light ...	Coffee	Tall Nonfat Milk	90
Frappuccino® Blend...	Vanilla Bean (Without Whi...	Soymilk	180
Frappuccino® Blend...	Vanilla Bean (Without Whi...	Whole Milk	200
Frappuccino® Blend...	Vanilla Bean (Without Whi...	Tall Nonfat Milk	170
Frappuccino® Blend...	Strawberries & Crème (...)	Soymilk	170
Frappuccino® Blend...	Strawberries & Crème (...)	Whole Milk	190
Frappuccino® Blend...	Strawberries & Crème (...)	Tall Nonfat Milk	170