

# In-Class Assignment: RDBMS to Graph DB

Below are some of the questions that need your analysis to drive product strategy

1. List employees who sold Tofu with the count of orders.

```
1 // 1. List employees who sold Tofu with count of orders.
2 MATCH (p:Product{productName:"Tofu"})-[:CONTAINS]-(o1:Order)-[:SOLD]-(e1:Employee)
3 RETURN e1.employeeID as employee, count(distinct o1) as count
4 ORDER BY count DESC
```

	employee	count
1	"6"	5
2	"1"	4
3	"5"	3
4	"4"	3
5	"8"	3
6	"3"	3
7	"9"	1

2. What are the products sold along with Tofu?

```
1 MATCH(p1:Product{productName:"Tofu"})-[:CONTAINS]-(o1:Order)-[:SOLD]-(e1:Employee)-[:SOLD]-(o2:Order)-[:CONTAINS]-(p2:Product)
2 RETURN p2.productName, COUNT(DISTINCT o2) AS COUNT ORDER BY COUNT DESC
```

	p2.productName	COUNT
1	"Gorgonzola Telino"	45
2	"Camembert Pierrot"	43
3	"Raclette Courdavault"	42
4	"Rhönbräu Klosterbier"	41
5	"Gnocchi di nonna Alice"	41
6	"Tarte au sucre"	40
7	"Guaraná Fantástica"	38
8	"Chang"	38
9	"Flotemysost"	37
10	"Jack's New England Clam Chowder"	36

3. How many products do you have in your dataset?

```
1 //3. How many products do you have in your dataset?
2
3 MATCH(p:Product)
4 RETURN COUNT(DISTINCT(p.productId)) AS COUNT
```

	COUNT
1	77

4. What are the top 5 products by sales?

```
1 //4. What are the top 5 products by sales?
2
3 MATCH(o:Order)-[r1:CONTAINS]->(p:Product)
4 RETURN p.productName, COUNT(DISTINCT o) AS N_order
5 ORDER BY N_order DESC
6 LIMIT 5
```

	p.productName	N_order
1	"Raclette Courdavault"	54
2	"Guaraná Fantástica"	51
3	"Gorgonzola Telino"	51
4	"Camembert Pierrot"	51
5	"Gnocchi di nonna Alice"	50

5. Which category has the highest sales (orders)? List the products in this category

```
1 MATCH (o:Order)-[r:CONTAINS]->(p:Product)-[r1:PART_OF]->(c:Category)
2 RETURN COUNT(c.categoryName) AS Category, c.categoryName, c.description AS Products
3 ORDER BY Category DESC
4 LIMIT 1
```

	Category	c.categoryName	Products
1	404	"Beverages"	"Soft drinks, coffees, teas, beers, and ales"