

# SQL Task

```
With orders (id, number, country, customer_id) As
(
    Values (1, 'O-01', 'DE', 1),
           (4, 'O-02', 'AT', 2),
           (5, 'O-03', 'DE', 2),
           (6, 'O-05', 'AT', 2),
           (8, 'O-06', 'DE', 3),
           (10, 'O-10', 'DE', 3),
           (11, 'O-11', 'AT', 3),
           (12, 'O-123', 'DE', 1)
)
, customers (id, country, name) As
(
    Values (1, 'DE', 'John Doe'),
           (2, 'AT', 'John Snow'),
           (3, 'DE', 'Johnny B. Goode')
)
Select *
From orders As o
Inner Join customers As c On c.id = o.customer_id;
```

1. Select Customer Name and orders in his/her home country + not in the home (15 points)

Expected result:

name	same	Different
John Snow	2	1
John Doe	2	0
Johnny B. Goode	2	1

2. Find the gaps in orders ids, i.e. missing id values in the sequence (15 points)

Expected result:

start	End
2	3
7	7
9	9

3. Find gaps in orders numbers, i.e. missing number in the sequence (10 points)

Expected result:

start	End
4	4
7	9
12	122

# Tableau Task

Using Superstore data, create an interactive reports.

Part 1 requires to create mini-dashboards/sheets, that will show the answers to questions. Part 2 is open questions you should answer in 2-3 sentences. The answer in part 2 can be based on some of the questions from part 1, but not necessary. Part 3 is a bonus one.

Part 1:

- What is the most profitable category?
- In which State share “furniture/office supplies” will be biggest
- What is the most “profitable” customers’ first name?
- How many days it take to ship all product with negative profit?
- In general, which modes, segments and cities are more profitable than other?

Part 2:

What is the advices you can give to Superstore company strategy for 2019? Should they close some branches or ways of shipping? Should they put some restriction on products/orders?

Part 3 (Data Administration Skills):

Take open source data on EUR/USD exchange rates (for example, here: <https://www.currency-converter.org.uk/currency-rates/historical/table/EUR-USD.html>). Convert them to the table and blend this data to Superstore datasource. Calculate daily profit in Euros according to actual exchange rates.

Part 1: Criteria is 5 points for correctly calculated answer on each question. 5 points for visualisation part.

Part 2: Up to 10 points.

Part 3: 15 points for correctly calculated answer. 5 points for visualisation part.