

# 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

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

Expected result:

start	End
2	3
7	7
9	9

3. Find gaps in orders numbers, i.e. missing number in the sequence

Expected result:

start	End
4	4
7	9
12	122

# Python Task

1. Scrape the data from Zillow (for New York) - <https://www.zillow.com/new-york-ny/>
2. Go through all the listings there
3. Collect all the data points from the listing:
  - a. Link
  - b. How many days on Zillow: 55 days on Zillow
  - c. Price: 399.000
  - d. How many bedrooms: 1, 2, 3..Studio, etc.
  - e. How many bathrooms
  - f. Square meters/feet
  - g. Type of the ad: House for Sale
  - h. Address: 210 E 63rd St APT 7D, New York, NY 10065
  - i. Company/Broker
4. Show stats on the collected data:
  - a. How many properties
  - b. Average price (in total) and per sq.ft.
  - c. Number of properties per type of the ad
  - d. Number of properties per company/broker