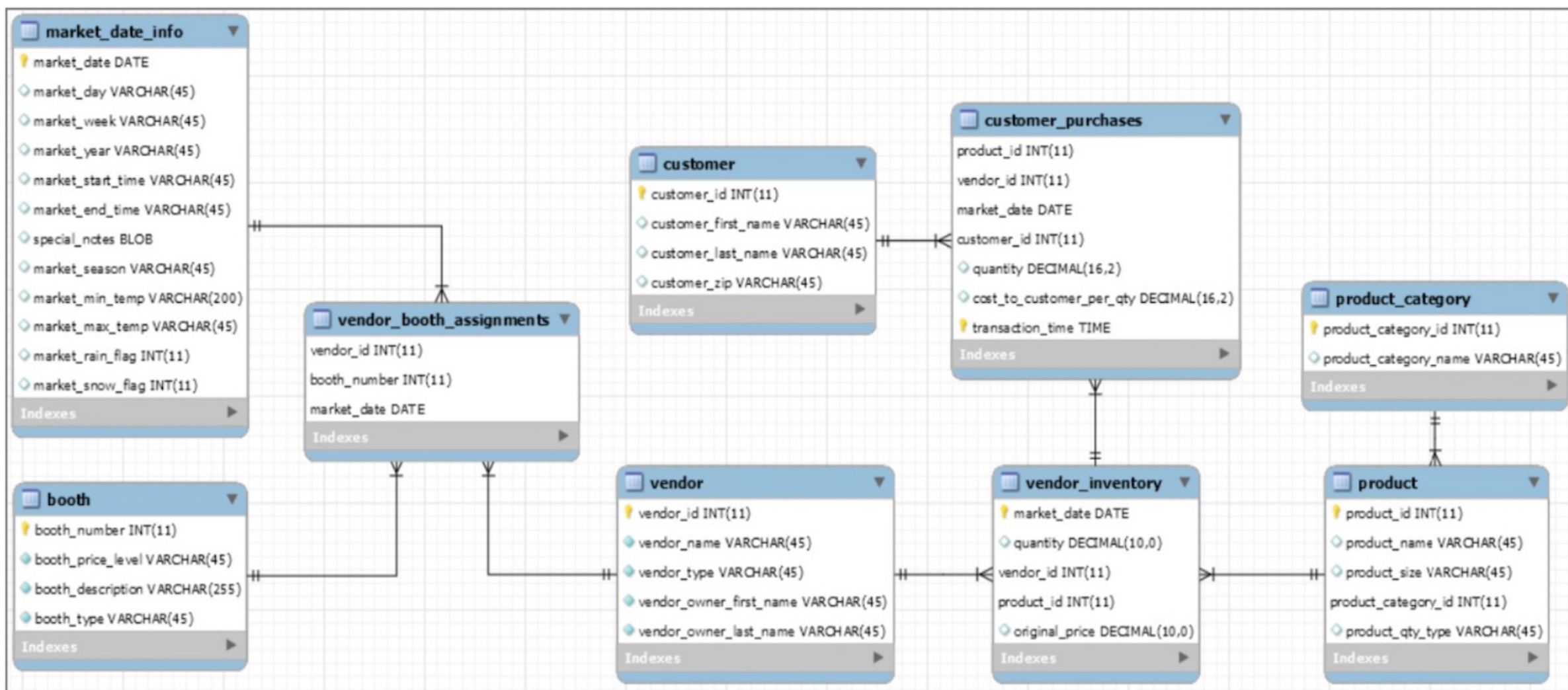


SQL-01 Extracting data using SQL

Lecture 2



Quiz

- Cus_id in a Customer table is Primary_key, Candidate_key and also a Super_key?
 - True - correct
 - False
- All Super keys are Candidate keys?
 - True
 - False - correct
- Mobile brand is left table, mobile phone model details is right table. What is the kind of relation between the two?
 - Many to Many
 - One to One
 - One to Many - correct
 - Many to One
- Which of the 2 statements are right? 1. Primary key cannot be a duplicate 2. Primary key can have NULL values?
 - 1 - correct
 - 2
 - 1 and 2 are right
 - Neither are right
- SQL does not support Databases where the data is stored as key-value pairs?
 - True - correct
 - False

Get all the products available in the market.

```
SELECT * FROM `farmers_market.product`
```

Select five product IDs and their associated product names from the product table.

```
SELECT product_id, product_name  
FROM `farmers_market.product`  
LIMIT 5
```

If I ask you to skip the first 2 records and display the 10 rows afterwards?

```
SELECT product_id, product_name  
FROM `farmers_market.product`  
LIMIT 10  
OFFSET 2
```

Sort this entire data in ascending order of by a particular column, in this case 'product_id'

```
SELECT product_id, product_name  
FROM `farmers_market.product`  
ORDER BY product_id
```

Show only the first 10 of the sorted data

```
SELECT product_id, product_name  
FROM `farmers_market.product`  
ORDER BY product_id  
LIMIT 10
```

Question: Explore vendor_booth_assignments.
List down 10 rows of farmer's market vendor booth assignments, displaying the market date, vendor ID, and booth number from the vendor_booth_assignments table.

```
SELECT
    market_date,
    vendor_id,
    booth_number
FROM
farmers_market.vendor_booth_assignments
LIMIT 10
```

Sort the data by date.

```
SELECT
    market_date,
    vendor_id,
    booth_number
FROM
farmers_market.vendor_booth_assignments
ORDER BY market_date
Limit 10
```

For each market_date in the vendor_booth_inventory, sort the data by vendor_id in descending order.

```
SELECT market_date,  
       vendor_id,  
       booth_number  
FROM  
farmers_market.vendor_booth_assignments  
ORDER BY  
market_date,  
vendor_id DESC
```


Question: In the customer purchases, we have quantity and cost per qty separate,

Query the total amount that the customer has paid along with date, customer id, vendor_id, qty, cost per qty and the total amt.?

```
SELECT
    market_date,
    customer_id,
    vendor_id,
    quantity,
    cost_to_customer_per_qty,
    quantity * cost_to_customer_per_qty
FROM farmers_market.customer_purchases
```

With Alias

```
SELECT
    market_date,
    customer_id,
    vendor_id,
    quantity,
    cost_to_customer_per_qty,
    (quantity * cost_to_customer_per_qty) as price
FROM farmers_market.customer_purchases
```

Round off all the values in the result set to 2 decimal places?

```
SELECT
    market_date,
    customer_id,
    vendor_id,
    ROUND(quantity * cost_to_customer_per_qty, 2) AS price
FROM farmers_market.customer_purchases
```

Other function like ceil, floor

```
SELECT
    market_date,
    customer_id,
    vendor_id,
    ROUND(quantity * cost_to_customer_per_qty, 2) AS price
    ceil(quantity * cost_to_customer_per_qty) AS price_ceil
    floor(quantity * cost_to_customer_per_qty) AS price_floor
FROM farmers_market.customer_purchases
```

Merge each customer's name into a single column that contains the first name, then a space, and then the last name.

```
SELECT  
customer_id,  
CONCAT(customer_first_name, " ", customer_last_name) AS full_name  
FROM farmers_market.customer
```

In a customer's full_name, we want the first_name to be in upper case followed by the last_name as it is.

```
SELECT  
customer_id,  
CONCAT(UPPER(customer_first_name), " ", customer_last_name) AS full_name  
FROM farmers_market.customer
```

Display only the first character of someone's last_name?

```
SELECT  
customer_id,  
SUBSTR(customer_last_name, 1, 1) as last_name_1_char  
FROM farmers_market.customer
```

Capitalize the full_name of a customer. First character of the first_name & last_name should be in uppercase. All other characters should be in lowercase.

Using upper, lower, substr, concat

```
SELECT
  customer_id,
  customer_first_name,
  customer_last_name,
  CONCAT(UPPER(SUBSTR(customer_first_name, 1, 1)),
        LOWER(SUBSTR(customer_first_name, 2)), " ",
        UPPER(SUBSTR(customer_last_name, 1, 1)),
        LOWER(SUBSTR(customer_last_name, 2))) AS capitalised_full_name
FROM `farmers_market.customer`
```

Simpler function using **INITCAP** in BigQuery

```
SELECT
  customer_id,
  customer_first_name,
  customer_last_name,
  CONCAT(INITCAP(customer_first_name), " ", INITCAP(customer_last_name)) AS capitalised_full_name
FROM `farmers_market.customer`
LIMIT 5
```