The dataset describes the sale of Microsoft Azure products in 2022. The *Dim\_products* table presents Azure products, along with their categories and prices, while *fact\_contracts* describes contracts for selling products to customers.

The dataset contains two tables:

- fact contracts (customer id, product id, obtention day)
- dim\_products (**product id**, product\_category, product\_name, price)

## fact contracts:

customer\_id: the customer identifier product\_id: the product identifier

obtention\_day: the date of the product purchase

## dim\_products:

product\_id: the product identifier

product\_category: the category of the product

product\_name: the product name price: the product price in 2022

## **SQL Questions**

## Easy Most profitable category

 Select the most profitable product category for Microsoft (The category with the highest sales revenue)

#### Medium Month-on-month growth rate

• For each category, find the month-on-month growth rate of every month in 2022. The m-o-m growth rate is the growth of the revenue of sold products in the current month compared to the previous month.

# Medium Supercloud customer

 A Microsoft Azure Supercloud customer is a customer who buys at least 1 product from each product category. Find the number of supercloud customers.

## Hard Increasing purchase prices

 Select the ID of the customer who has made at least 4 purchases with strictly increasing prices.

## Hints

- 1) The category is: Containers
- 2) The M-o-M of Analytics in February is 8.45
- 3) We have 179 supercloud customers
- 4) the identifier is 1396