

The dataset describes the Zillow housing data in the USA. **Fact\_agreements** table covers 1000 agreements of house purchases that will be made between 2023 and 2025, while **dim\_real\_estate\_companies** describes the companies that will buy the houses.

The dataset contains two tables:

- fact\_agreements (real\_estate\_company, purchaser\_id, city, price, sqft, purchase\_year)
- dim\_real\_estate\_companies (real\_estate\_company, loan)

**fact\_agreements :**

real\_estate\_company: the company that will buy the house

purchaser\_id: the identifier of the purchaser

city: the house's city

price: the house's price

sqft: the measurement of the surface of the house

purchase\_year: the year of purchase

**dim\_real\_estate\_companies :**

real\_estate\_company: the company in charge of buying houses

loan: The loan the company took out from the bank to build houses, which it has to repay

## SQL Questions

**Easy** Expensive cities

- A city is considered too expensive if its average price per sqft is higher than 1.25 times the overall average price per sqft of all cities. Describe each city by one of the statuses: 'Too expensive' or 'Not expensive'

**Medium** Year-on-year growth rate

- For each city, find the year-on-year growth rate of 2024 and 2025. The y-o-y growth rate is the growth of the average price per sqft of the current year compared to the previous year.

**Hard** Repayment year

- Based on the house's purchase year, find the year the loans are paid off for each real estate company.

## Hints

- 1) Too expensive cities are: NY, LA, CA
- 2) The 2024 YoY growth rate of CA is 2.449
- 3) The repayment year of Compass is 2023