



Did you know that the average return from investing in stocks is 10% per year 💆 (not accounting for inflation)? But who wants to be average?!

You have been asked to support an investment firm by analyzing trends in high-growth companies. They are interested in understanding which industries are producing the highest valuations and the rate at which new high-value companies are emerging. Providing them with this information gives them a competitive insight as to industry trends and how they should structure their portfolio looking forward.

You have been given access to their unicorns database, which contains the following tables:

## dates

Column	Description
company_id	A unique ID for the company.
date_joined	The date that the company became a unicorn.
year_founded	The year that the company was founded.

## funding

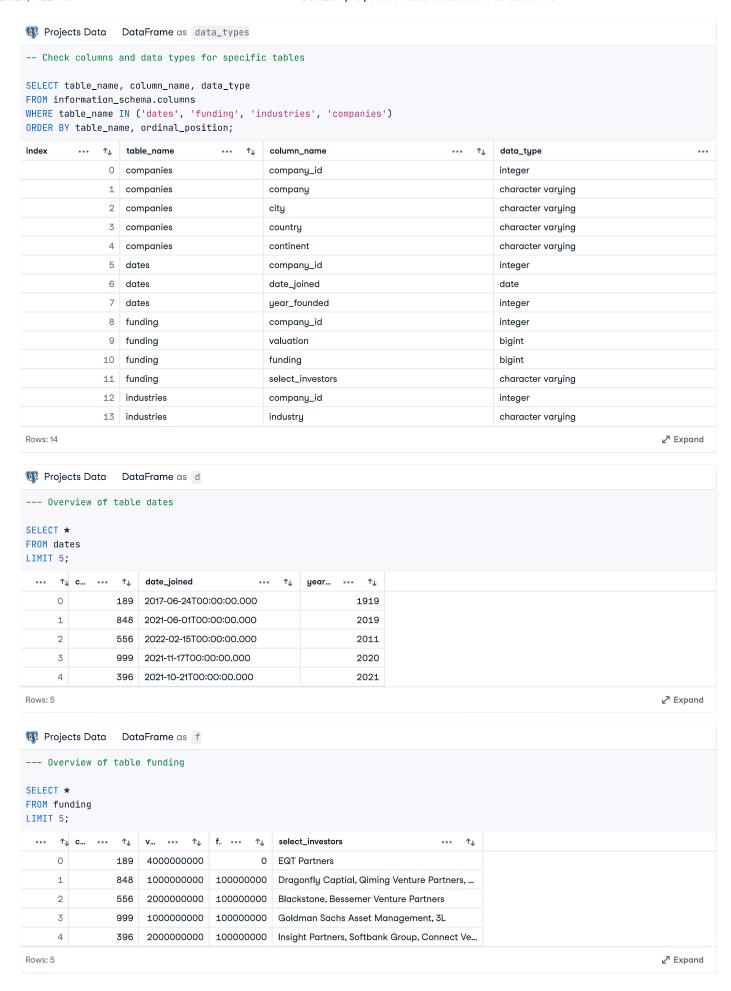
Column	Description
company_id	A unique ID for the company.
valuation	Company value in US dollars.
funding	The amount of funding raised in US dollars.
select_investors	A list of key investors in the company.

## industries

Column	Description
company_id	A unique ID for the company.
industry	The industry that the company operates in.

## companies

Column	Description
company_id	A unique ID for the company.
company	The name of the company.
city	The city where the company is headquartered.
country	The country where the company is headquartered.
continent	The continent where the company is headquartered.

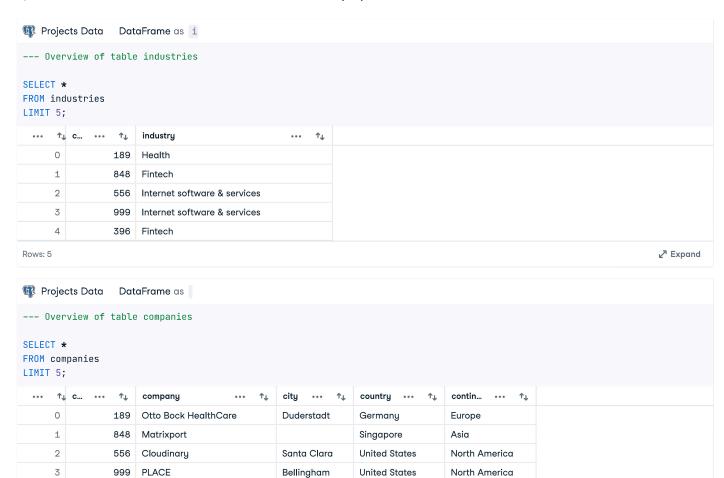


4

Rows: 5

396

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The output					
Your query should return a table in the following format:					
industry	year	num_unicorns	average_valuation_billions		
industry1	2021				
industry2	2020				
industry3	2019				
industry1	2021				
industry2	2020				
industry3	2019				
industry1	2021				
industry2	2020				
industry3	2019				
Where inc	lustry	1, industry2,	and industry3 are the thre		

**United States** 

North America

New York

∠ Expand

```
Projects Data DataFrame as
SELECT
        i.industry,
        COUNT(*) AS number_of_companies
FROM industries AS i
INNER JOIN dates AS d
   USING(company_id)
WHERE EXTRACT(YEAR FROM d.date_joined) IN (2019, 2020, 2021)
GROUP BY i.industry
ORDER BY number_of_companies DESC
LIMIT 3;
 ••• 1 industry
                                         ... ↑↓
                                                  number_of_com... ↑↓
      0 Fintech
                                                                      173
     1 Internet software & services
                                                                      152
      2 E-commerce & direct-to-consumer
                                                                       75
Rows: 3

∠ Expand

Projects Data DataFrame as
SELECT
        i.industry,
        EXTRACT(YEAR FROM d.date_joined) AS year,
        COUNT(i.company_id) AS num_unicorns,
        ROUND(AVG(f.valuation), 2) AS avg_valuation
FROM industries AS i
INNER JOIN dates AS d
    USING(company_id)
INNER JOIN funding AS f
    USING(company_id)
WHERE EXTRACT(YEAR FROM d.date_joined) IN (2019, 2020, 2021)
GROUP BY i.industry, year
ORDER BY year ASC
 ••• 🐧 industry
                                                                       \uparrow_{\perp}
                                                                            avg_v... ••• ↑↓
                                         ••• 1 num...
      0 Artificial intelligence
                                                     2019
                                                                       14
                                                                                4500000000
      1 Auto & transportation
                                                     2019
                                                                        6
                                                                             4166666666.67
      2 Consumer & retail
                                                     2019
                                                                        3
                                                                             3666666666.67
         Cybersecurity
                                                     2019
                                                                        4
                                                                                2250000000
                                                     2019
                                                                               11500000000
      4 Data management & analytics
                                                                        4
                                                     2019
      5 E-commerce & direct-to-consumer
                                                                       12
                                                                             2583333333.33
      6
         Edtech
                                                     2019
                                                                        1
                                                                                1000000000
      7
         Fintech
                                                     2019
                                                                       20
                                                                                6800000000
         Health
                                                     2019
                                                                        3
                                                                             3333333333.33
      9
         Internet software & services
                                                     2019
                                                                       13
                                                                             4230769230.77
         Mobile & telecommunications
     10
                                                     2019
                                                                        4
                                                                                2000000000
     11
                                                     2019
                                                                        9
                                                                             2888888888.89
     12
         Supply chain, logistics, & delivery
                                                     2019
                                                                        8
                                                                                3000000000
     13
         Travel
                                                     2019
                                                                        3
                                                                                4000000000
         Artificial intelligence
                                                     2020
                                                                        3
                                                                                400000000
     14
```

https://www.datacamp.com/datalab/w/5fe169cf-2e99-443a-9a81-4bd205a877fd/print-notebook/notebook.ipynb

2020

5

3000000000

Auto & transportation

15

Rows: 43

Expand

```
Projects Data DataFrame as
--- CTE1 top_performing_industries
WITH top_performing_industries AS
    SELECT
        i.industry,
        COUNT(*) AS number_of_companies
    FROM industries AS i
    INNER JOIN dates AS d
       USING(company_id)
    WHERE EXTRACT(YEAR FROM d.date_joined) IN (2019, 2020, 2021)
    GROUP BY i.industry
    ORDER BY number_of_companies DESC
    LIMIT 3
),
--- CTE2 top_valuation
top_valuation AS
(
    SELECT
        i.industry,
        EXTRACT(YEAR FROM d.date_joined) AS year,
        COUNT(i.company_id) AS num_unicorns,
        {\tt ROUND(AVG(f.valuation),\ 2)\ AS\ avg\_valuation}
    FROM industries AS i
    INNER JOIN dates AS d
        USING(company_id)
    INNER JOIN funding AS f
       USING(company_id)
    WHERE EXTRACT(YEAR FROM d.date_joined) IN (2019, 2020, 2021)
    GROUP BY i.industry, year
    ORDER BY year ASC
)
--- Final Query
SELECT
    industry,
    year,
    num unicorns,
    ROUND(AVG(avg_valuation) / 10000000000, 2) AS average_valuation_billions
FROM top_valuation AS tv
INNER JOIN top_performing_industries AS tpi
    USING(industry)
WHERE year IN (2019, 2020, 2021)
 AND industry IN (SELECT industry FROM top_performing_industries)
GROUP BY industry, year, num_unicorns
ORDER BY year DESC, num_unicorns DESC;
                                                                           average_valuation_billions
  ••• 🐧 industry
                                                   ••• ↑↓ num... ••• ↑↓
                                                                                                    ••• ↑↓
      0 Fintech
                                                    2021
                                                                     138
                                                                                                        2.75
      1 Internet software & services
                                                    2021
                                                                     119
                                                                                                        2.15
      2 E-commerce & direct-to-consumer
                                                    2021
                                                                      47
                                                                                                        2.47
                                                    2020
                                                                      20
                                                                                                        4.35
      3 Internet software & services
      4 E-commerce & direct-to-consumer
                                                    2020
                                                                      16
                                                                                                          4
      5 Fintech
                                                    2020
                                                                      15
                                                                                                        4.33
      6 Fintech
                                                    2019
                                                                      20
                                                                                                         6.8
         Internet software & services
                                                    2019
                                                                      13
                                                                                                        4.23
                                                                                                        2.58
      8 E-commerce & direct-to-consumer
                                                    2019
                                                                      12
```

9/21/25, 4:22 PM DataLab | Al-powered data notebook for all skill levels Rows: 9 Expand