

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
<code>company_id</code>	A unique ID for the company.
<code>date_joined</code>	The date that the company became a unicorn.
<code>year_founded</code>	The year that the company was founded.

funding

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

industries

Column	Description
<code>company_id</code>	A unique ID for the company.
<code>industry</code>	The industry that the company operates in.

companies

Column	Description
<code>company_id</code>	A unique ID for the company.
<code>company</code>	The name of the company.

Column	Description
city	The city where the company is headquartered.
country	The country where the company is headquartered.
continent	The continent where the company is headquartered.

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 `industry1`, `industry2`, and `industry3` are the three top-performing industries.

 Projects Data DataFrame as `df`

```
WITH top_industries AS
(
    SELECT i.industry,
           COUNT(i.*)
    FROM industries AS i
    INNER JOIN dates AS d
        ON i.company_id = d.company_id
    WHERE EXTRACT(year FROM d.date_joined) in ('2019', '2020', '2021')
    GROUP BY industry
    ORDER BY count DESC
    LIMIT 3
),

yearly_rankings AS
(
    SELECT COUNT(i.*) AS num_unicorns,
           i.industry,
           EXTRACT(year FROM d.date_joined) AS year,
```

```

        AVG(f.valuation) AS average_valuation
FROM industries AS i
INNER JOIN dates AS d
    ON i.company_id = d.company_id
INNER JOIN funding AS f
    ON d.company_id = f.company_id
GROUP BY industry, year
)

SELECT industry,
    year,
    num_unicorns,
    ROUND(AVG(average_valuation / 1000000000), 2) AS average_valuation_billions
FROM yearly_rankings
WHERE year in ('2019', '2020', '2021')
    AND industry in (SELECT industry
                     FROM top_industries)
GROUP BY industry, num_unicorns, year
ORDER BY year DESC, num_unicorns DESC

```

	▼ industry	▼ year	▼ num_unicorns
0	Fintech	2021	
1	Internet software & services	2021	
2	E-commerce & direct-to-consumer	2021	
3	Internet software & services	2020	
4	E-commerce & direct-to-consumer	2020	
5	Fintech	2020	
6	Fintech	2019	
7	Internet software & services	2019	
8	E-commerce & direct-to-consumer	2019	