Project: Analyzing Unicorn Companies

In this project, I analyzed a database of unicorn companies (private companies valued at over $1 billion) to uncover trends in high-growth industries. The goal was to help an investment firm identify which industries are producing the highest valuations and the rate at which new unicorns are emerging. By focusing on data from 2019, 2020 and 2021, I provided insights into which sectors are driving innovation and attracting the most investment.

Using SQL, I identified the top-performing industries, calculated yearly growth metrics and analyzed the average valuations of new unicorns. The findings give a competitive edge to stakeholders by highlighting emerging opportunities in high-value sectors. This project is a great example of how technical analysis can translate into actionable business insights.

Below is a description of the tables within the `unicorns` database:

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.

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.

```
In [ ]:   -- Identify the three best-performing industries based on the total number of unicorns (
          WITH top_industries AS (
              SELECT
                  i.industry,
                  COUNT(DISTINCT d.company_id) AS num_unicorns
              FROM
                  industries i
              JOIN
                  dates d ON i.company_id = d.company_id
              WHERE
                  EXTRACT(YEAR FROM d.date_joined) IN (2019, 2020, 2021)
              GROUP BY
                  i.industry
              ORDER BY
                  num_unicorns DESC
              LIMIT 3  -- Select the top 3 industries
          ),

          -- Collect statistics for these industries for each year
          industry_stats AS (
              SELECT
                  i.industry,
                  EXTRACT(YEAR FROM d.date_joined) AS year,
                  COUNT(DISTINCT d.company_id) AS num_unicorns,
                  ROUND(AVG(f.valuation / 1e9), 2) AS average_valuation_billions
              FROM
                  industries i
              JOIN
                  dates d ON i.company_id = d.company_id
              JOIN
                  funding f ON i.company_id = f.company_id
              WHERE
                  i.industry IN (SELECT industry FROM top_industries)
                  AND EXTRACT(YEAR FROM d.date_joined) IN (2019, 2020, 2021)
              GROUP BY
                  i.industry, EXTRACT(YEAR FROM d.date_joined)
          )

          -- Final output sorted by year and number of unicorns
          SELECT
              industry,
              year,
              num_unicorns,
              average_valuation_billions
          FROM
              industry_stats
          ORDER BY
              year DESC,
              num_unicorns DESC;
```

	industry	year	num_unicorns	average_valuation_billions
0	Fintech	2021	138	2.75
1	Internet software & services	2021	119	2.15
2	E-commerce & direct-to-consumer	2021	47	2.47
3	Internet software & services	2020	20	4.35
4	E-commerce & direct-to-consumer	2020	16	4.00
5	Fintech	2020	15	4.33
6	Fintech	2019	20	6.80
7	Internet software & services	2019	13	4.23
8	E-commerce & direct-to-consumer	2019	12	2.58

Results and Analysis

The final output shows the top three industries across 2019, 2020, and 2021 which are: Fintech, Internet Software & Services, and E-commerce & Direct-to-Consumer. For each industry and year, we can see the total number unicorns created and their average valuations in billions.

Results:

2021: Fintech led with 138 unicorns ($2.75B avg), followed by Internet Software & Services with 119 unicorns ($2.15B avg), and E-commerce & Direct-to-Consumer with 47 unicorns ($2.47B avg).

2020: Internet Software & Services topped with 20 unicorns ($4.35B avg), followed by E-commerce ($16 unicorns, $4B avg) and Fintech (15 unicorns, $4.33B avg).

2019: Fintech dominated with 20 unicorns ($6.8B avg), with Internet Software & Services (13 unicorns, $4.23B avg) and E-commerce (12 unicorns, $2.58B avg) following.

These results highlight how Fintech consistently leads in unicorn creation, while Internet Software & Services shows strong valuations. This analysis provides insights into high-growth industries and can help stakeholders focus their investments strategically.