Hand with calculator

Did you know that the average return from investing in stocks is 10% per year! 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. |

```
In [ ]:   DROP TABLE IF EXISTS top_industries
          ;

          SELECT
                  industry,
              count(*) AS industry_count
          INTO top_industries
          FROM industries AS i
          LEFT JOIN dates AS d
                  ON i.company_id = d.company_id
          WHERE EXTRACT(YEAR FROM d.date_joined) BETWEEN 2019 AND 2021
          GROUP BY industry
          ORDER BY industry_count DESC
          LIMIT 3
          ;

          DROP TABLE IF EXISTS company_valuations
          ;

          SELECT
                  i.industry,
              EXTRACT(YEAR FROM d.date_joined) AS year,
              f.valuation,
              t.industry_count
          INTO company_valuations
          FROM funding AS f
          JOIN industries AS i
                  ON i.company_id = f.company_id
          JOIN dates AS d
                  ON i.company_id = d.company_id
          INNER JOIN top_industries AS t
                  ON i.industry = t.industry
          WHERE EXTRACT(YEAR FROM d.date_joined) BETWEEN 2019 AND 2021
          ;


          SELECT
                  industry,
              year,
              count(*) AS num_unicorns,
              ROUND(AVG(valuation) / 1E9, 2) AS average_valuation_billions
          FROM company_valuations
          GROUP BY industry, industry_count, year
          ORDER BY industry, year DESC
          ;
```

Out[ ]:

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

| | industry | year | num_unicorns | average_valuation_billions |
|---|---|---|---|---|
| **7** | Internet software & services | 2020 | 20 | 4.35 |
| **8** | Internet software & services | 2019 | 13 | 4.23 |