

Exploring Startup Trends with SQL

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1. Startup Landscape Analysis

Before conducting deeper analyses, the first priority is to develop a high-level understanding of the startup ecosystem represented in our database.

Leadership requires an initial snapshot of organizational outcomes, specifically how many startups have ceased operations compared to those still active or acquired. Establishing this baseline will help us determine the overall success rate within the dataset.

Current Task:

Identify and calculate the total number of companies that have closed down.

```
1  SELECT COUNT ( * )  
2  FROM company  
3  WHERE status = 'closed';
```

2. Sector Analysis for US Investors

A major US-based venture capital client is evaluating opportunities in the media and news sector. They have requested historical funding benchmarks to guide investment sizing decisions. To support this, we need to analyze the amount of capital that news-related companies in the United States have raised to date.

Retrieve the total funding amounts for US-based news companies from the company table and sort the results by the funding_total field in descending order to highlight the most well-funded organizations.

```
1  SELECT funding_total
2  FROM company
3  WHERE category_code = 'news' AND country_code =
   'USA'
4  ORDER BY funding_total DESC;
```

3. Analyzing Cash Acquisitions

Our quarterly acquisition trends report requires insight into transaction behavior during the post-recession recovery period from 2011 through 2013. Specifically, the team wants to understand the volume of cash-based acquisitions in contrast to stock or mixed deals.

I calculated the total value of acquisitions paid entirely in cash during the years 2011 to 2013 inclusive.

```
1  SELECT SUM(price_amount)
2  FROM acquisition
3  WHERE term_code = 'cash'
4  AND (acquired_at >= '2011-01-01' AND acquired_at
      <= '2013-12-31');
```

4. Identifying Industry Influencers

The marketing team is preparing a targeted outreach initiative focused on industry influencers with strong social media impact. They are particularly interested in individuals whose Twitter usernames begin with Silver, as this group has shown notable influence.

I retrieved the first names, last names, and Twitter usernames of individuals whose Twitter handles start with Silver.

```
1  SELECT
2      first_name,
3      last_name,
4      twitter_username
5  FROM people
6  WHERE twitter_username LIKE 'Silver%';
```

5. Finding Finance Influencers

The influencer search is now more specialized. The team wants to focus on finance-oriented influencers whose Twitter handles contain the word money and whose last names begin with K. This helps refine their list for an upcoming FinTech investment report.

I returned all available information for people whose Twitter usernames include money and whose last names start with K.

```
1  SELECT
2      *
3  FROM people
4  WHERE twitter_username LIKE '%money%'
5  AND last_name LIKE 'K%';
```

6. Geographic Investment Analysis

International investors need visibility into global venture capital distribution. Understanding which countries attract the most funding supports strategic decision-making about market entry and allocation.

For each country, calculate the total funding raised by companies registered there based on the country code. Sort the results in descending order by total funding raised.

```
1  SELECT
2      country_code,
3      SUM(funding_total)
4  FROM company
5  GROUP BY country_code
6  ORDER BY SUM(funding_total) DESC;
```

7. Funding Round Volatility Analysis

The risk analysis team is studying abnormal variation in funding activity. They want to identify dates where funding volatility was high, indicated by a large spread between the smallest and largest funding rounds. Dates where any company raised zero dollars should be excluded to avoid distortion.

I created a table that lists each date in the funding_round table along with the highest and lowest funding amounts for that date. Only include records where the lowest value is not zero and not equal to the highest value.

```
1  SELECT
2      funded_at,
3      MIN(raised_amount),
4      MAX(raised_amount)
5  FROM funding_round
6  GROUP BY funded_at
7  HAVING
8      MIN(raised_amount) <> MAX(raised_amount) AND
      MIN(raised_amount) <> 0;
```

8. Fund Activity Classification

Investor clients often evaluate venture funds based on their level of activity. Highly active funds may have broad networks, while less active ones may show deeper specialization. To support this assessment, we need to classify funds by investment activity levels.

I created a new field that groups funds into three categories:

- high_activity for funds with one hundred or more portfolio companies
- middle_activity for funds with between twenty and ninety-nine companies

- low_activity for funds with fewer than twenty companies

In addition, I returned all fields from the fund table along with this new classification.

```
1  SELECT *,
2      CASE
3          WHEN invested_companies >= 100 THEN
4              'high_activity'
5          WHEN invested_companies >= 20 THEN
6              'middle_activity'
7          ELSE 'low_activity'
8      END AS activity
9  FROM fund;
```

9. Investment Strategy by Fund Activity

To complement the fund activity framework, the research team wants to compare investment behavior across activity levels. Specifically, they want to evaluate whether more active funds tend to participate in more rounds per company.

For each activity category created previously, calculate the average number of funding rounds the fund has participated in. I rounded the result to the nearest whole number then returned the activity categories and their corresponding averages, sorted in ascending order by the average.

```

1  SELECT CASE
2      WHEN invested_companies >= 100 THEN
3          'high_activity'
4      WHEN invested_companies >= 20 THEN
5          'middle_activity'
6      ELSE 'low_activity'
7  END AS activity,
8  ROUND(AVG(investment_rounds)) AS
9  average_rounds
10 FROM fund
11 GROUP BY activity
12 ORDER BY average_rounds;

```

10. Employee Education Impact on Startup Success

Clients continue to debate whether the education levels of startup employees influence company outcomes. To contribute data to this discussion, we will analyze the educational backgrounds of employees from companies that closed after securing only one funding round.

I identified companies that shut down after a single funding round.

Then identified employees associated with those companies and joined the education table to determine their degree types.

In conclusion, I calculated the average number of degrees per employee within these failed companies.

```
1  SELECT AVG(t.total_degree_type)
2  FROM (SELECT p.id,
3           COUNT(e.degree_type) AS total_degree_type
4           FROM people AS p JOIN education AS e ON
5           p.id = e.person_id
6           WHERE company_id IN (SELECT id
7                                FROM company
8                                WHERE id IN (SELECT
9                                           company_id
10                                           FROM
11                                           funding_round
12                                           WHERE
13                                           is_first_round = 1 AND is_last_round = 1)
14                                           AND
15                                           status = 'closed'))
11      GROUP BY p.id) AS t;
```