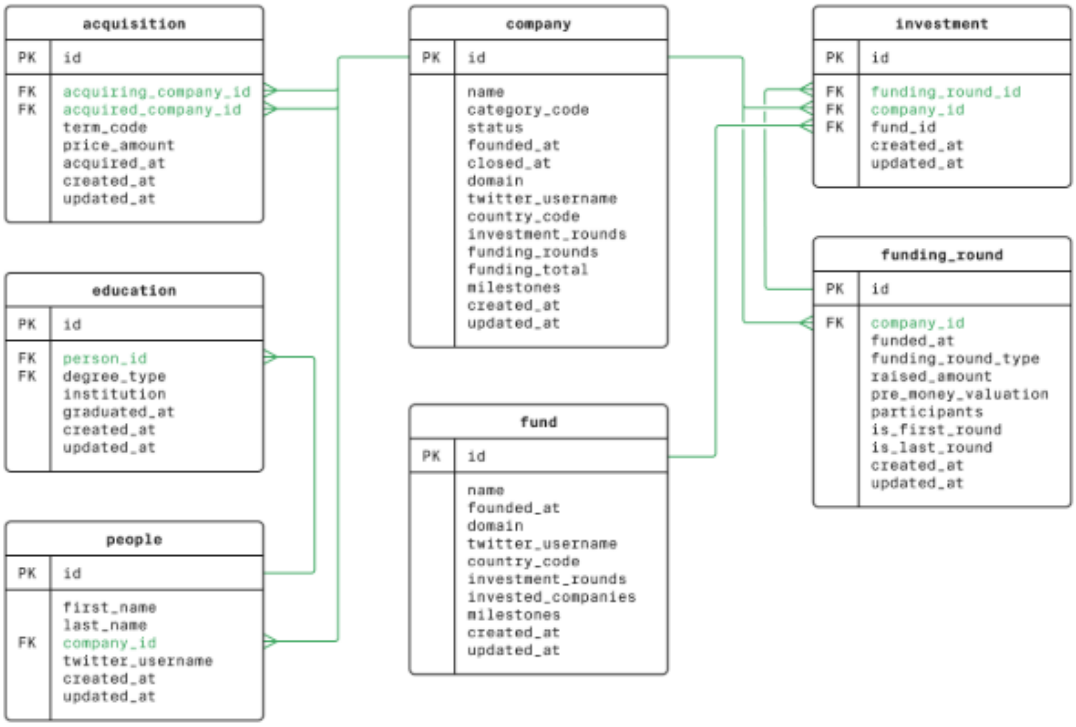
Startup & Investment SQL Analysis

Overall Objective:
Leverage SQL to analyze startup performance, funding activity, acquisitions, geographic trends, and influencer networks using a unified database schema. The goal is to uncover actionable insights that support investor decision-making, risk analysis, and marketing outreach.

Key Analyses Performed:

1. **Startup Landscape Analysis** – Measured baseline success rates by counting failed versus surviving companies.
2. **Sector Analysis for US Investors** – Identified funding trends in US-based news/media companies to benchmark investment potential.
3. **Cash Acquisition Trends** – Calculated total value of cash-based acquisitions during the 2011–2013 recovery period.
4. **Industry Influencer Identification** – Found individuals with strong social branding ("Silver" in Twitter handles) for marketing outreach.
5. **Finance Influencer Analysis** – Targeted finance-focused influencers ("money" in handles, last name starting with K) for FinTech campaigns.
6. **Geographic Investment Analysis** – Ranked countries by total venture funding raised to highlight top global markets.
7. **Funding Round Volatility** – Detected unusual market activity by analyzing gaps between smallest and largest funding rounds per date.
8. **Fund Activity Classification** – Categorized venture funds (high/middle/low activity) based on number of companies invested in.
9. **Investment Strategy by Fund Activity** – Compared average funding rounds per company across activity categories to reveal fund strategies.
10. **Employee Education & Startup Success** – Explored whether employee education levels correlated with startup failure after one funding round.

ER Diagram:



ER diagram of a database that stores information about venture funds and startup investments.

You'll be working with these key tables:

- `company` Information about startups (funding, status, category)
- `fund` Details about venture capital funds
- `funding_round` Data on investment rounds
- `investment` Records of specific investments
- `acquisition` Information about company acquisitions
- `people` Details about founders, employees, and investors
- `education` Educational backgrounds

Startup Landscape Analysis

Objective:
Provide an overview of the startup landscape by quantifying how many companies have failed (closed down), helping establish a baseline success rate within the ecosystem.

```sql
SELECT
    COUNT(status)
FROM
    company
WHERE
    status = 'closed'
```

Result

count
2584

Sector Analysis for US Investors

Objective:
Analyze funding trends for US-based news and media companies by listing the total funding raised, sorted from highest to lowest, to help investors benchmark potential investment amounts.

```sql
SELECT
    funding_total
FROM company
WHERE
    category_code = 'news'
    AND country_code = 'USA'
ORDER BY
    funding_total DESC;
```

Result

funding_total						
4.63e+07	2.55064e+07	1.25e+07	7e+06	4e+06	3e+06	
6.22553e+08	4.5e+07	2.25463e+07	1.2e+07	6.5e+06	4e+06	2.9e+06
2.5e+08	4.1e+07	2.25e+07	1.18492e+07	6.25e+06	3.7e+06	2.5e+06
1.605e+08	4e+07	2.09e+07	1.097e+07	5.70802e+06	3.5e+06	2.5e+06
1.28e+08	3.7e+07	2.07e+07	1e+07	5.5e+06	3.5e+06	2.2e+06
1.265e+08	2.94746e+07	2e+07	9.8e+06	5e+06	3.5e+06	2e+06
7e+07	2.9e+07	1.4325e+07	9.5e+06	4.75e+06	3.343e+06	2e+06
6.9e+07	2.745e+07	1.31e+07	8.42825e+06	4.575e+06	3.2e+06	1.75e+06
6.11322e+07	2.7e+07	1.3e+07	7.70431e+06	4.27657e+06	3e+06	1.75e+06
5.64649e+07	2.5762e+07	1.3e+07	7.38e+06	4e+06	3e+06	1.7e+06

Note: Chart continues several more rows

Analyzing Cash Acquisitions

Objective:
Measure post-recession acquisition trends by calculating the total value of cash-only company acquisitions between 2011 and 2013, providing insight into acquisition strategies during the economic recovery period.

```
SELECT
    SUM(price_amount) AS total_cash_acquired
FROM
    acquisition
WHERE
    acquired_at::DATE > '2010-12-31'
    AND acquired_at::DATE < '2014-01-01'
    AND term_code = 'cash'
```

Result

total_cash_acquired
1.37762e+11

Identifying Industry Influencers

Objective:
Identify potential industry influencers for marketing outreach by listing individuals whose Twitter handles begin with “Silver,” including their names and usernames, to support targeted partnership opportunities.

```sql
SELECT
    first_name,
    last_name,
    twitter_username
FROM
    people
WHERE
    twitter_username LIKE 'Silver%'
```

Result

first_name	last_name	twitter_username
Rebecca	Silver	SilverRebecca
Silver	Teede	SilverMatrixx
Mattias	Guilotte	Silverreven

Finding Finance Influencers

Objective:
Support targeted influencer outreach by identifying finance-related individuals whose Twitter handles contain “money” and whose last names begin with “K,” providing the marketing team with relevant contacts for the FinTech investment report.

```sql
SELECT *
FROM
    people
WHERE
    twitter_username LIKE '%money%'
    AND last_name LIKE 'K%'
```

Result

id	first_name	last_name	company_id	twitter_username	created_at	updated_at
63081	Gregory	Kim		gmoney75	2010-07-13 03:46:28	2011-12-12 22:01:34

Geographic Investment Analysis

Objective:
Analyze global funding patterns by calculating the total capital raised by companies in each country, highlighting the top-funded regions to guide international investment strategies.

```
SELECT
    country_code,
    SUM(funding_total)
FROM
    company
GROUP BY
    country_code
ORDER BY
    SUM(funding_total) DESC
```

Result

country_code	sum
USA	3.10588e+11
GBR	1.77056e+10
	1.08559e+10
CHN	1.06897e+10
CAN	9.86636e+09
IND	6.14141e+09
DEU	5.76577e+09
FRA	4.59514e+09
ISR	4.48009e+09
CHE	2.82925e+09

Note: Chart continues several more rows

Funding Round Volatility Analysis

Objective:
Assess funding round volatility by identifying dates with significant gaps between the smallest and largest funding amounts (excluding zero or identical values), helping the risk analysis team detect unusual market activity.

```
SELECT
    funded_at,
    MIN(raised_amount) AS min_raised,
    MAX(raised_amount) AS max_raised
FROM
    funding_round
GROUP BY
    funded_at
HAVING
    MIN(raised_amount) != 0
    AND MIN(raised_amount) != MAX(raised_amount)
```

Result

funded_at	min_raised	max_raised
2012-08-22	40000	7.5e+07
2010-07-25	3.27825e+06	9e+06
2002-03-01	2.84418e+06	8.95915e+06
2010-10-11	28000	2e+08
2007-01-18	5.5e+06	2.3e+07
2007-02-27	1.29e+06	3.6e+07
2006-01-05	8.9e+06	2.65e+07
2011-10-31	35000	2.5e+07
2012-10-27	500000	9.3e+06
2007-08-16	2.51989e+06	9e+06

Note: Chart continues several more rows

Fund Activity Classification

Objective:
Classify venture funds by activity level (high, middle, low) based on the number of companies they have invested in, enabling investors to identify potential co-investment partners aligned with their strategic preferences.

```sql
SELECT *,
    CASE
        WHEN invested_companies >= 100 THEN 'high_activity'
        WHEN invested_companies < 100 AND invested_companies >= 20 THEN 'middle_activity'
        WHEN invested_companies < 20 THEN 'low_activity'
    END AS activity_level
FROM
    fund
```

Result

id	name	founded_at	domain	twitter_username	country_code	investment_rounds	invested_companies	milestones	created_at	updated_at	activity_level
13131						0	0	0	2013-08-19 18:46:55	2013-08-19 19:55:07	low_activity
1	Greylock Partners	1965-01-01	greylock.com	greylockvc	USA	307	196	0	2007-05-25 20:18:23	2012-12-27 00:42:24	high_activity
10	Mission Ventures	1996-01-01	missionventures.com		USA	58	33	0	2007-06-05 05:24:58	2013-10-10 22:06:31	middle_activit
100	Kapor Enterprises, Inc.		kei.com		USA	2	1	0	2007-07-12 09:42:21	2008-11-21 05:41:53	low_activity
1000	Speed Ventures					0	0	1	2008-04-13 23:52:27	2008-12-10 09:37:18	low_activity
10000	3x5 Special Opportunity Partners					4	4	0	2012-10-26 03:16:38	2012-10-26 03:16:38	low_activity

Note: Chart continues several more rows

Investment Strategy by Fund Activity

Objective:
Evaluate investment strategies by measuring the average number of funding rounds per company across fund activity categories, revealing whether highly active funds engage more broadly or more deeply with their portfolio companies.

```sql
SELECT
    CASE
        WHEN invested_companies >= 100 THEN 'high_activity'
        WHEN invested_companies < 100 AND invested_companies >= 20 THEN 'middle_activity'
        WHEN invested_companies < 20 THEN 'low_activity'
    END AS activity_level,
    ROUND(AVG(investment_rounds)) AS average_investment_rounds

FROM
    fund
GROUP BY
    activity_level
ORDER BY
    AVG(investment_rounds)
```

Result

activity_level	average_investment_rounds
low_activity	2
middle_activity	51
high_activity	252

Employee Education Impact on Startup Success

Objective:
Analyze whether the educational background of employees impacts startup success by comparing the education levels of employees at startups that failed after only one funding round. This involves identifying the failed companies, linking their employees to education records, and calculating the average number of degrees per employee to uncover potential correlations between education and startup outcomes.

```sql
SELECT AVG(average_degree_per_employee_for_failed_startups.total_degree_type)
FROM (SELECT people.id,
           COUNT(education.degree_type) AS total_degree_type
      FROM people JOIN education ON people.id = education.person_id
      WHERE company_id IN (SELECT id
                           FROM company
                           WHERE id IN (SELECT company_id
                                        FROM funding_round
                                        WHERE is_first_round = 1 AND is_last_round = 1)
                                        AND status = 'closed')
GROUP BY people.id) AS average_degree_per_employee_for_failed_startups;

```

Result
avg
1.23113