Global Tech Layoffs Analysis (2022–2025)
Author: Mubasshir Ahmed
Tools Used: MySQL
Dataset Source: Kaggle – Tech Layoffs
GitHub Repository: MySQL-Mastery-Journey

📌Executive Summary

This project presents a complete SQL-based analysis of global tech layoffs from 2022 to 2025. The dataset, sourced from Kaggle, includes layoff events across sectors, countries, and companies. The goal was to extract actionable business insights using only SQL — emulating a real-world data analytics environment without third-party BI tools.

🕐Project Objectives

- Understand trends in layoff activity over time
- Analyze which companies and industries were most affected
- Evaluate the relationship between startup funding stages and layoffs
- Strengthen SQL skills for data transformation and insight extraction

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🧪Methodology

Data Ingestion & Preparation

- Imported and profiled the dataset using MySQL
- Created staging tables to preserve the raw schema

Data Cleaning – 6-Step Process

Step	Task
1️⃣	Created staging tables to isolate raw data
2️⃣	Removed 231 duplicate rows using `ROW_NUMBER()`
3️⃣	Normalized inconsistent industry names (e.g., `CryptoCurrency` → `Crypto`)
4️⃣	Cleaned country names and removed artifacts (e.g., `United States.` → `United States`)
5️⃣	Converted `date` from TEXT → DATE type
6️⃣	Removed 94 rows where both layoff columns were NULL

📊Key Findings (EDA)

1. Layoffs Over Time

- Over **212,000** layoffs recorded from 2022–2025
- Peak month: **January 2023**
- Layoffs tripled from early 2022 to early 2023

2. Top Companies by Layoffs

Company	Total Laid Off
Meta	11,000
Amazon	10,000
Google	9,000

3. Country-wise Analysis

- 🇺🇸**United States** accounted for ~70% of layoffs

4. Industry-wise Impact

Industry	% of Total Layoffs
FinTech	25%
Crypto	21%
E-commerce	17%

5. Funding vs Collapse

- 15+ companies raised $100M+, yet laid off 100% of employees
- Notable: **Quibi** raised $1.75B and shut down entirely

6. Startup Stage Vulnerability

- Startups in **Series C & D** funding rounds faced the most layoffs

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📊Dashboard Mockup

To visualize these insights in a more business-friendly format, a dashboard mockup was created. This layout reflects how stakeholders (e.g., HR heads, investors) might interact with the trends:

Dashboard Preview

Note: This static mockup serves as a foundation for future Power BI or Tableau dashboard development.

💼Business Value

- Cleaned and analyzed **1,937** records using advanced SQL
- Extracted **15+ insights** using `GROUP BY`, `CTEs`, `Window Functions`, and `DENSE_RANK()`
- Emulated real-world data analytics for reporting and stakeholder decision-making

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📚Key Learnings

- Mastered SQL across multiple domains: joins, subqueries, window functions, cleaning, and aggregation
- Developed a structured end-to-end data project using SQL only
- Learned to draw insights from unstructured business data

📁Project Deliverables

File	Description
`layoffs.csv`	Raw Kaggle dataset
`Global_Tech_Layoffs_Analysis.sql`	SQL script for cleaning + EDA
`Tech_Layoffs_Analysis.png`	Dashboard mockup preview
`README.md`	Project overview for GitHub
`Global_Tech_Layoffs_Project_Report.pdf`	Final report version

🕐What's Next?

- Convert results into an interactive dashboard using **Power BI** or **Tableau**
- Share a walkthrough and visual explanation via LinkedIn article
- Explore predictive analytics using Python or AutoML for trend forecasting

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📎Conclusion

This project simulates a full-cycle data analysis task in a professional context. It highlights how SQL alone can drive powerful insights from raw data, aiding decision-makers across industries. By understanding layoff trends, this analysis supports smarter planning in volatile economic times.

View full project on GitHub: MySQL-Mastery-Journey
🆒Let's connect: LinkedIn – Mubasshir Ahmed

Tags: `#SQL` `#DataAnalytics` `#LayoffsAnalysis` `#EDA` `#MySQL` `#PortfolioProject`