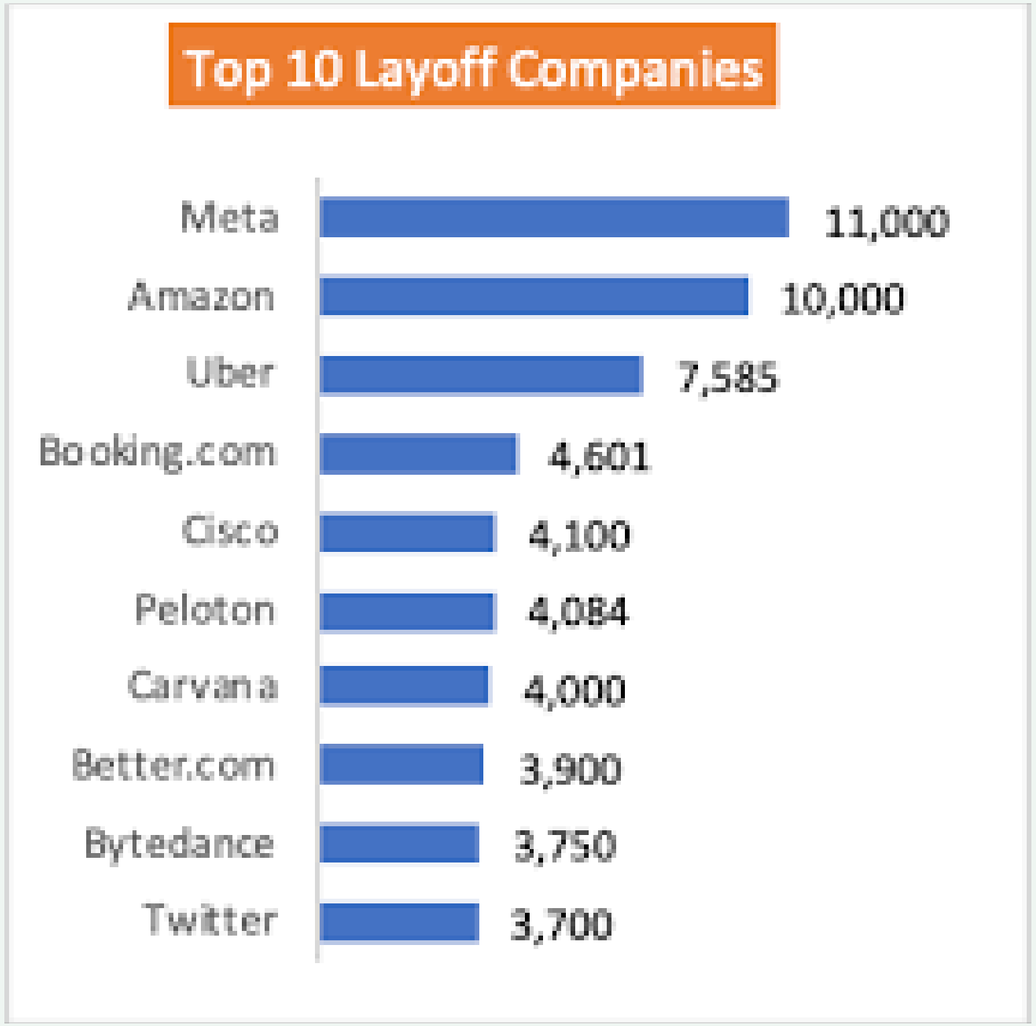
THE

WORLD LAYOFF

PROJECT



PROJECT OVERVIEW

Data Cleaning: Ensured data integrity through duplicate removal, standardization, and handling of null values.

Exploratory Analysis: Examined minimum and maximum layoff percentages, identified companies with complete layoffs, and analyzed financial insights linking funds raised to layoffs.

Insights: Uncovered industry-specific trends, annual layoff patterns, and month-over-month changes, offering actionable insights for workforce management and financial strategy.

INITIAL DATASET: PRE-CLEANING SNAPSHOT

sult Grid | Filter Rows: | Export: | Wrap Cell Conte

company	location	industry	total_laid_off	percentag
Tricida	SF Bay Area	Healthcare	NULL	0.57
Veev	SF Bay Area	Real Estate	100	0.3
Forto	Berlin	Logistics	60	0.08
Chipax	Santiago	Finance	NULL	NULL
Juniper	Atlanta	Marketing	NULL	NULL
Offerpad	Phoenix	Real Estate	NULL	0.07
GoTo Group	Jakarta	Transportation	1300	0.12
Juul	SF Bay Area		400	0.3
Blend	SF Bay Area	Finance	100	0.06
InfluxData	SF Bay Area	Data	65	0.27
Coinbase	SF Bay Area	Crypto	60	NULL
SoundHound	SF Bay Area	Other	45	0.1
Wistia	Boston	Marketing	40	NULL

esult Grid | Filter Rows: | Export: | Wrap Cell Content:

company	location	industry	total_laid_off	percentage_laid_off	date	stage	country	funds_raised_millions	row_nu
Casper	New York City	Retail	NULL	NULL	9/14/2021	Post-IPO	United States	339	2
Cazoo	London	Transportation	750	0.15	6/7/2022	Post-IPO	United Kingdom	2000	2
Hibob	Tel Aviv	HR	70	0.3	3/30/2020	Series A	Israel	45	2
Wildlife Studios	Sao Paulo	Consumer	300	0.2	11/28/2022	Unknown	Brazil	260	2
Yahoo	SF Bay Area	Consumer	1600	0.2	2/9/2023	Acquired	United States	6	2

CLEANED DATASET: POST-CLEANING SNAPSHOT

company	location	industry	total_laid_off	percentage_laid_off	date	stage	country	fund
Included Health	SF Bay Area	Healthcare	NULL	0.06	2022-07-25	Series E	United States	272
&Open	Dublin	Marketing	9	0.09	2022-11-17	Series A	Ireland	35
#Paid	Toronto	Marketing	19	0.17	2023-01-27	Series B	Canada	21
100 Thieves	Los Angeles	Consumer	12	NULL	2022-07-13	Series C	United States	120
10X Genomics	SF Bay Area	Healthcare	100	0.08	2022-08-04	Post-IPO	United States	242
1stdibs	New York City	Retail	70	0.17	2020-04-02	Series D	United States	253
2TM	Sao Paulo	Crypto	90	0.12	2022-06-01	Unknown	Brazil	250
2TM	Sao Paulo	Crypto	100	0.15	2022-09-01	Unknown	Brazil	250
2U	Washington D.C.	Education	NULL	0.2	2022-07-28	Post-IPO	United States	426
54gene	Washington D.C.	Healthcare	95	0.3	2022-08-29	Series B	United States	44
5B Solar	Sydney	Energy	NULL	0.25	2022-06-03	Series A	Australia	12
6sense	SF Bay Area	Sales	150	0.1	2022-10-12	Series E	United States	426
80 Acres Farms	Cincinnati	Food	NULL	0.1	2023-01-18	Unknown	United States	275
8x8	SF Bay Area	Support	155	0.07	2023-01-18	Post-IPO	United States	253
8x8	SF Bay Area	Support	200	0.09	2022-10-04	Post-IPO	United States	253
98point6	Seattle	Healthcare	NULL	0.1	2022-07-21	Series E	United States	247
99	Sao Paulo	Transport...	75	0.02	2022-09-20	Acquired	Brazil	244

1. LOOKING AT PERCENTAGE TO SEE HOW BIG THESE LAYOFFS WERE

World Layoffs Data Cleaning | Exploratory Data Analysis of Wo... | layoffs_staging2 | layoffs_staging2 | SQL File 5

Don't Limit

```sql
-- 1. Looking at Percentage to see how big these layoffs were

SELECT MIN(percentage_laid_off) AS minimum_percentage_laidOff, MAX(percentage_laid_off) AS maximum_percentage_laidOff
FROM layoffs_staging2
WHERE percentage_laid_off IS NOT NULL;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

minimum_percentage_laidOff	maximum_percentage_laidOff
0	1

2. WHICH COMPANIES HAD 1 PERCENTAGE LAID OFF; WHICH IS BASICALLY 100 PERCENT OF THE COMPANY LAID OFF

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Don't Limit

```
11
12      -- 2. Which companies had 1 which is basically 100 percent of the company laid off
13
14      SELECT *
15      FROM layoffs_staging2
16      WHERE percentage_laid_off = 1
17      ORDER BY total_laid_off desc;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

company	location	industry	total_laid_off	percentage	date	stage	country	funds_raised_millions
Katerra	SF Bay Area	Construction	2434	1	2021-06-01	Unknown	United States	1600
Butler Hospitality	New York City	Food	1000	1	2022-07-08	Series B	United States	50
Deliv	SF Bay Area	Retail	669	1000	2020-05-13	Series C	United States	80
Jump	New York City	Transportation	500	1	2020-05-07	Acquired	United States	11
SEND	Sydney	Food	300	1	2022-05-04	Seed	Australia	3
HOOQ	Singapore	Consumer	250	1	2020-03-27	Unknown	Singapore	95
Stoqo	Jakarta	Food	250	1	2020-04-25	Series A	Indonesia	NULL
Stay Alfred	Spokane	Travel	221	1	2020-05-20	Series B	United States	62
Britishvolt	London	Transportation	206	1	2023-01-17	Unknown	United Kingdom	2400
Planetly	Berlin	Other	200	1	2022-11-04	Acquired	Germany	5
Crejo.Fun	Bengaluru	Education	170	1	2022-06-30	Seed	India	3
Bridge Connector	Nashville	Healthcare	154	1	2020-11-17	Series B	United States	45
Simple Feast	Copenhagen	Food	150	1	2022-09-07	Unknown	Denmark	173
Reali	SF Bay Area	Real Estate	140	1	2022-08-24	Series B	United States	117
Bluprint	Denver	Education	137	1	2020-05-26	Acquired	United States	108

layoffs_staging2 60

3. ORDER BY FUNDS_RAISED_MILLIONS

```
19    -- 3. if we order by funDs_raised_millions we can see how big some of these companies were
20    -- BritishVolt: Despite being in the promising EV sector, faced significant layoffs.
21    -- Quibi: Raised approximately $2 billion but ultimately ceased operations, leading to layoffs.
22
23    SELECT *
24    FROM layoffs_staging2
25    WHERE  percentage_laid_off = 1
26    ORDER BY funds_raised_millions DESC;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

company	location	industry	total_laid_off	percentage	date	stage	country	funds_raised_millions
Britishvolt	London	Transportation	206	1	2023-01-17	Unknown	United Kingdom	2400
Quibi	Los Angeles	Media	NULL	1	2020-10-21	Private Equity	United States	1800
Deliveroo Australia	Melbourne	Food	120	1	2022-11-15	Post-IPO	Australia	1700
Katerra	SF Bay Area	Construction	2434	1	2021-06-01	Unknown	United States	1600
BlockFi	New York City	Crypto	NULL	1	2022-11-28	Series E	United States	1000
Aura Financial	SF Bay Area	Finance	NULL	1	2021-01-11	Unknown	United States	584
Openpay	Melbourne	Finance	83	1	2023-02-07	Post-IPO	Australia	299
Pollen	London	Marketing	NULL	1	2022-08-10	Series C	United Kingdom	238
Simple Feast	Copenhagen	Food	150	1	2022-09-07	Unknown	Denmark	173
Arch Oncology	Brisbane	Healthcare	NULL	1	2023-01-13	Series C	United States	155
Motif Investing	SF Bay Area	Finance	NULL	1	2020-04-18	Series E	United States	126
CommonBond	New York City	Finance	NULL	1	2022-09-09	Series D	United States	125
Fast	SF Bay Area	Finance	NULL	1	2022-04-05	Series B	United States	124
Reali	SF Bay Area	Real Estate	140	1	2022-08-24	Series B	United States	117
The Wing	New York City	Real Estate	NULL	1	2022-08-31	Series C	United States	117

4. TOP 10 COMPANIES WITH THE MOST TOTAL LAYOFFS

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Don't Limit

```
27
28      -- 4. Top 10 Companies with the most Total Layoffs
29
30      SELECT company, SUM(total_laid_off)
31      FROM layoffs_staging2
32      GROUP BY company
33      ORDER BY 2 desc
34      LIMIT 10;
35
```

Result Grid | Filter Rows:

company	SUM(total_laid_off)
Amazon	18150
Google	12000
Meta	11000
Salesforce	10090
Microsoft	10000
Philips	10000
Ericsson	8500
Uber	7585
Dell	6650
Booking.com	4601

5. ANNUAL LAYOFFS BY YEAR

World Layoffs Data Cleaning | Exploratory Data Analysis of Wo...

Don't Limit

```
39      -- 5. Annual Layoffs by Year
40
41  •   SELECT YEAR(`date`), SUM(total_laid_off)
42      FROM layoffs_staging2
43      GROUP BY YEAR(`date`)
44      ORDER BY 1 desc;
45
```

Result Grid | Filter Rows:

YEAR(`date`)	SUM(total_laid_off)
2023	125677
2022	160661
2021	15823
2020	80998
NULL	500

6. EARLIER WE LOOKED AT COMPANIES WITH THE MOST LAYOFFS. NOW LET'S LOOK AT THAT PER YEAR.

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Don't Limit

```sql
-- 6. Earlier we looked at Companies with the most Layoffs. Now let's look at that per year.

WITH Company_year AS (
SELECT company, YEAR(`date`) AS years, SUM(total_laid_off) AS total_laid_off
FROM layoffs_staging2
GROUP BY company, years
),
Company_rank AS (
SELECT company, years, total_laid_off, DENSE_RANK() OVER (PARTITION BY years order BY total_laid_off DESC) AS ranking
FROM Company_year
)
SELECT company, years, total_laid_off, ranking
FROM Company_rank
WHERE years IS NOT NULL AND ranking <= 3;
```

Result Grid | Filter Rows: | Export:

company	years	total_laid_off	ranking
Uber	2020	7525	1
Booking.com	2020	4375	2
Groupon	2020	2800	3
Bytedance	2021	3600	1
Katerra	2021	2434	2
Zillow	2021	2000	3
Meta	2022	11000	1
Amazon	2022	10150	2
Cisco	2022	4100	3
Google	2023	12000	1
Microsoft	2023	10000	2
Ericsson	2023	8500	3

7. ROLLING TOTAL OF LAYOFFS PER MONTH

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Don't Limit

```
61
62      -- 7. Rolling Total of Layoffs Per Month
63
64  ●   WITH Monthly_total AS (
65      SELECT substring(`date`, 1, 7) AS months, SUM(total_laid_off) AS total_off
66      FROM layoffs_staging2
67      WHERE `date` is not null
68      GROUP BY months
69      ORDER BY months DESC)
70      SELECT months, total_off, SUM(total_off) OVER (ORDER BY months) AS rolling_total
71      FROM Monthly_total;
```

months	total_off	rolling_total
2020-03	9628	9628
2020-04	26710	36338
2020-05	25804	62142
2020-06	7627	69769
2020-07	7112	76881
2020-08	1969	78850
2020-09	609	79459
2020-10	450	79909
2020-11	237	80146
2020-12	852	80998
2021-01	6813	87811
2021-02	868	88679
2021-03	47	88726
2021-04	261	88987
2021-05	2434	91421

Result 68

8. PERCENTAGE CHANGE IN LAYOFFS BETWEEN TWO CONSECUTIVE MONTHS:

World Layoffs Data Cleaning | Exploratory Data Analysis of Wo... | layoffs_staging2 | layoffs_staging2 | SQL File 5

Don't Limit

```sql
-- 8. Percentage Change in Layoffs Between Two Consecutive Months:

WITH Monthly_total AS (
SELECT substring(`date`, 1, 7) AS months, SUM(total_laid_off) AS total_off
FROM layoffs_staging2
WHERE `date` is not null
GROUP BY months
ORDER BY months DESC),
Lagged_Summary AS(
SELECT months, total_off, LAG(total_off) OVER (ORDER BY months) AS previous_month_layoff
FROM Monthly_total
)
select months, total_off, previous_month_layoff, total_off - previous_month_layoff AS layoff_difference,
ROUND ( CASE WHEN previous_month_layoff = 0 THEN null
    ELSE (total_off - previous_month_layoff)/ previous_month_layoff * 100
END, 2) AS percentage_change
FROM lagged_Summary
WHERE previous_month_layoff IS NOT NULL;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

months	total_off	previous_month_layoff	layoff_difference	percentage_change
2020-04	26710	9628	17082	177.42
2020-05	25804	26710	-906	-3.39
2020-06	7627	25804	-18177	-70.44
2020-07	7112	7627	-515	-6.75
2020-08	1969	7112	-5143	-72.31
2020-09	609	1969	-1360	-69.07
2020-10	450	609	-159	-26.11
2020-11	237	450	-213	-47.33
2020-12	852	237	615	259.49
2021-01	6813	852	5961	699.65
2021-02	868	6813	-5945	-87.26
2021-03	47	868	-821	-94.59
2021-04	261	47	214	455.32
2021-06	2434	261	2173	832.57
2021-07	80	2434	-2354	-96.71
2021-08	1867	80	1787	2233.75
2021-09	161	1867	-1706	-91.38

9. COMPANIES WITH SIGNIFICANT FUNDS RAISED BUT STILL HAD LAYOFFS

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Don't Limit

```
91
92    -- 9. Companies with Significant Funds Raised but Still Had Layoffs
93
94    SELECT
95        company,
96        location,
97        industry,
98        total_laid_off,
99        funds_raised_millions
100   FROM
101       layoffs_staging2
102   WHERE
103       funds_raised_millions > (SELECT
104               AVG(funds_raised_millions)
105           FROM
106               layoffs_staging2
107           WHERE
108               funds_raised_millions IS NOT NULL)
109           AND total_laid_off > 100;
110
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

company	location	industry	total_laid_off	funds_raised_millions
Affirm	SF Bay Area	Finance	500	1500
Airbnb	SF Bay Area	Travel	1900	5400
Airtable	SF Bay Area	Product	254	1400
AppLovin	SF Bay Area	Marketing	300	1600
Argo AI	Pittsburgh	Transportation	150	3600
Argo AI	Pittsburgh	Transportation	173	3600
Argo AI	SF Bay Area	Transportation	259	3600
Better.com	New York City	Real Estate	900	905
Better.com	New York City	Real Estate	3000	905
BlockFi	New York City	Crypto	250	1000
Bolt	SF Bay Area	Finance	240	1300
Brex	SF Bay Area	Financ	136	1500
Britishvolt	London	Transportation	206	2400
Byju's	Bengaluru	Education	1500	5500
Byju's	Bengaluru	Education	2500	5500
Bytedance	Mumbai	Consumer	1800	7400
Bytedance	Shanghai	Consumer	150	9400
Bytedance	Shanghai	Consumer	1800	9400
Cars24	Gurugram	Transportation	600	1300
Carvana	Phoenix	Transportation	2500	1600

Finance

10. CALCULATE AVERAGE FUNDS RAISED, TOTAL LAYOFFS, AND RANK DIFFERENCE BY INDUSTRY

World Layoffs Data Cleaning | Exploratory Data Analysis of Wo... | layoffs_staging2 | layoffs_staging2 | SQL File 5

Don't Limit

```sql
-- 10. Calculate Average Funds Raised, Total Layoffs, and Rank Difference by Industry

-- The rank_difference helps in understanding how industries fare
-- in terms of their financial health (funding) versus their workforce dynamics (layoffs).
-- A negative rank_difference generally indicates industries with lower layoffs relative to their funding,
-- suggesting stability or efficient management.
-- Conversely, a positive rank_difference may indicate industries with higher layoffs despite good funding,
-- highlighting potential challenges or inefficiencies in workforce management.

WITH IndustrySummary AS(
SELECT industry, AVG( funds_raised_millions ) AS average_funds, SUM( total_laid_off ) AS total_layoffs
FROM layoffs_staging2
WHERE funds_raised_millions IS NOT NULL AND total_laid_off IS NOT NULL
GROUP BY industry
),
IndustryRank AS(
SELECT industry, average_funds, total_layoffs,
RANK() OVER(ORDER BY average_funds DESC) AS rank_fund,
RANK() OVER(ORDER BY total_layoffs DESC) AS rank_layoff
FROM IndustrySummary
)
SELECT industry, average_funds, total_layoffs, rank_fund, rank_layoff, CAST(rank_fund AS SIGNED) - CAST(rank_layoff AS SIGNED) AS rank_dif
FROM IndustryRank
ORDER BY rank_fund;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

industry	average_funds	total_layoffs	rank_fund	rank_layoff	rank_difference
Media	9401.6415	4572	1	17	-16
Transportation	2439.8544	32900	2	4	-2
Consumer	1793.2152	44037	3	1	2
Real Estate	1274.0845	16675	4	7	-3
Hardware	1034.8000	925	5	25	-20
Food	1000.5543	22555	6	6	0
Travel	823.5500	10381	7	11	-4
Aerospace	775.5000	661	8	28	-20
Fitness	502.8000	8698	9	13	-4
Construction	489.0000	3863	10	19	-9
Retail	471.7154	42342	11	2	9
Finance	456.8737	24395	12	5	7
Other	415.6087	34740	13	3	10
Logistics	407.7931	3996	14	18	-4
Education	380.6349	13125	15	10	5

THANK YOU SO MUCH FOR YOUR TIME !