

Analyzing Global Layoffs Using SQL

Data Cleaning

- Remove Duplicate
- Standardize Data
- Null values
- Remove unnecessary columns or rows

Data After Cleaning





```
select * from layoffs_Staging2;
```

	company	location	industry	total_laid_off	percentage_laid_off	date	stage	country	funds_raised_millions
▶	Atlassian	Sydney	Other	500	0.05	2023-03-06	Post-IPO	Australia	210
	The RealReal	SF Bay Area	Retail	230	0.07	2023-02-16	Post-IPO	United States	356
	Smartsheet	Seattle	Other	85	0.03	2023-02-16	Post-IPO	United States	152
	Wix	Tel Aviv	Marketing	370	0.06	2023-02-15	Post-IPO	Israel	58
	ServiceTitan	Los Angeles	Sales	221	0.08	2023-02-15	Series G	United States	1100
	Neon	Sao Paulo	Finance	210	0.09	2023-02-15	Series D	Brazil	720

Exploratory Data Analysis

Find the maximum number of layoffs and the highest layoff percentage

```
select max(total_laid_off),  
max(percentage_laid_off)  
from layoffs_Staging2;
```

Result Grid			Filter Rows: <input type="text"/>	Export: 	Wrap Cell Content: 
	max(total_laid_off)	max(percentage_laid_off)			
▶	12000	1			

Retrieve layoffs where 100% of employees were laid off, sorted by total layoffs (descending)

```
select total_laid_off,  
       percentage_laid_off from layoffs_Staging2  
where percentage_laid_off = 1  
order by 1 desc;
```

	total_laid_off	percentage_laid_off
▶	2434	1
	1000	1
	669	1
	500	1
	300	1
	250	1
	250	1

layoffs_Staging26 x

Total layoffs per company, sorted by highest layoffs

```
select company, sum(total_laid_off)  
from layoffs_Staging2  
group by 1  
order by 2 desc;
```

	company	sum(total_laid_off)
▶	Amazon	18150
	Google	12000
	Meta	11000
	Salesforce	10090
	Microsoft	10000
	Philips	10000
	Ericsson	8500

Result 7 x

Find the earliest and latest layoff dates in the dataset

```
select min(`date`), max(`date`)  
from layoffs_Staging2;
```

	min(`date`)	max(`date`)
▶	2020-03-11	2023-03-06

Total layoffs per industry, sorted by highest layoffs

```
select industry, sum(total_laid_off)
from layoffs_Staging2
group by 1
order by 2 desc;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
industry	sum(total_laid_off)		
Consumer	45182		
Retail	43613		
Other	36289		
Transportation	33748		
Finance	28344		
Healthcare	25953		
Education	22955		

Result 10 x

Total layoffs per country, sorted by highest layoffs

```
select country, sum(total_laid_off)
from layoffs_Staging2
group by 1
order by 2 desc;
```

country	sum(total_laid_off)
United States	256559
India	35993
Netherlands	17220
Sweden	11264
Brazil	10391
Germany	8701
United Kingdom	6308

Result 11 x

Total layoffs per year, sorted by year (descending)

```
select year(`date`), sum(total_laid_off)
from layoffs_Staging2
group by 1
order by 1 desc;
```

year(`date`)	sum(total_laid_off)
2023	125677
2022	160661
2021	15823
2020	80998
2019	500

Result 12 x

Total layoffs per startup stage per year, sorted by year (descending)

```
select stage, year(`date`), sum(total_laid_off)
from layoffs_Staging2
group by 1, 2
order by 2 desc;
```

Result Grid	Filter Rows:	Export:	Wrap Cell Content:
stage	year(`date`)	sum(total_laid_off)	
Post-IPO	2023	98692	
Series G	2023	291	
Series D	2023	1801	
Series C	2023	2711	
Series F	2023	1096	
Series A	2023	413	
Series B	2023	2102	

Result 13 x

Rolling total layoffs progression by month




```
with rolling_total as
(select substring(`date`, 1, 7) as `month`, sum(total_laid_off) as total_rid_off
from layoffs_Staging2
where substring(`date`, 1, 7) is not null
group by 1
order by 1)
select `month`, total_rid_off,
sum(total_rid_off) over(
    order by `month`
) as cumulative_sum_by_months
from rolling_total;
```


Result Grid	Filter Rows:	Export:	Wrap Cell Content:
month	total_rid_off	cumulative_sum_by_months	
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	500	79350	

Result 14 x

Top 5 companies with the highest layoffs per year

```
with company_year (company, `year`, total_rid_off)
as (
select company, year(`date`) as `year`, sum(total_laid_off) as total_rid_off
from layoffs_Staging2
group by 1,2)
, company_year_rank as(
select *, dense_rank() over(
    partition by `year` order by total_rid_off desc
    ) as ranking
from company_year
where `year` is not null)
select * from company_year_rank
where ranking <=5;
```

Result Grid  Filter Rows: <input type="text"/> Export:  Wrap Cell Content: 				
	company	year	total_rid_off	ranking
▶	Uber	2020	7525	1
	Booking.com	2020	4375	2
	Groupon	2020	2800	3
	Swiggy	2020	2250	4
	Airbnb	2020	1900	5
	Bytedance	2021	3600	1
	Katerra	2021	2434	2
	Zillow	2021	2000	3
	Instacart	2021	1877	4
	WhiteHat Jr	2021	1800	5
	Meta	2022	11000	1
	*	2022	10150	2

Result 15 

Top 5 industries with the highest layoffs per month in each year

```
with industry_year (industry, `year_month`, total_rid_off)
as (
select industry, substring(`date`, 1, 7) as `year_month`, sum(total_laid_off) as total_rid_off
from layoffs_Staging2
group by 1,2)
, industry_year_rank as(
select *, dense_rank() over(
    partition by `year_month` order by total_rid_off desc
    ) as ranking
from industry_year
where `year_month` is not null)
select * from industry_year_rank
where ranking <=5;
```

	industry	year_month	total_rid_off	ranking
▶	Travel	2020-03	1603	1
	Real Estate	2020-03	1375	2
	Transportation	2020-03	916	3
	Consumer	2020-03	840	4
	Fitness	2020-03	801	5
	Retail	2020-04	4241	1
	Food	2020-04	3812	2
	Consumer	2020-04	3269	3
	Finance	2020-04	2809	4
	Travel	2020-04	2405	5
	Transportation	2020-05	10340	1

Result 16 ×