EDA on Layoffs In Company

Presented By: Janani Jennifer

Agenda

- Introduction
- System Design
- Implementation
- Conclusion

Introduction

Layoffs happen when a company decides to let go of some of its employees

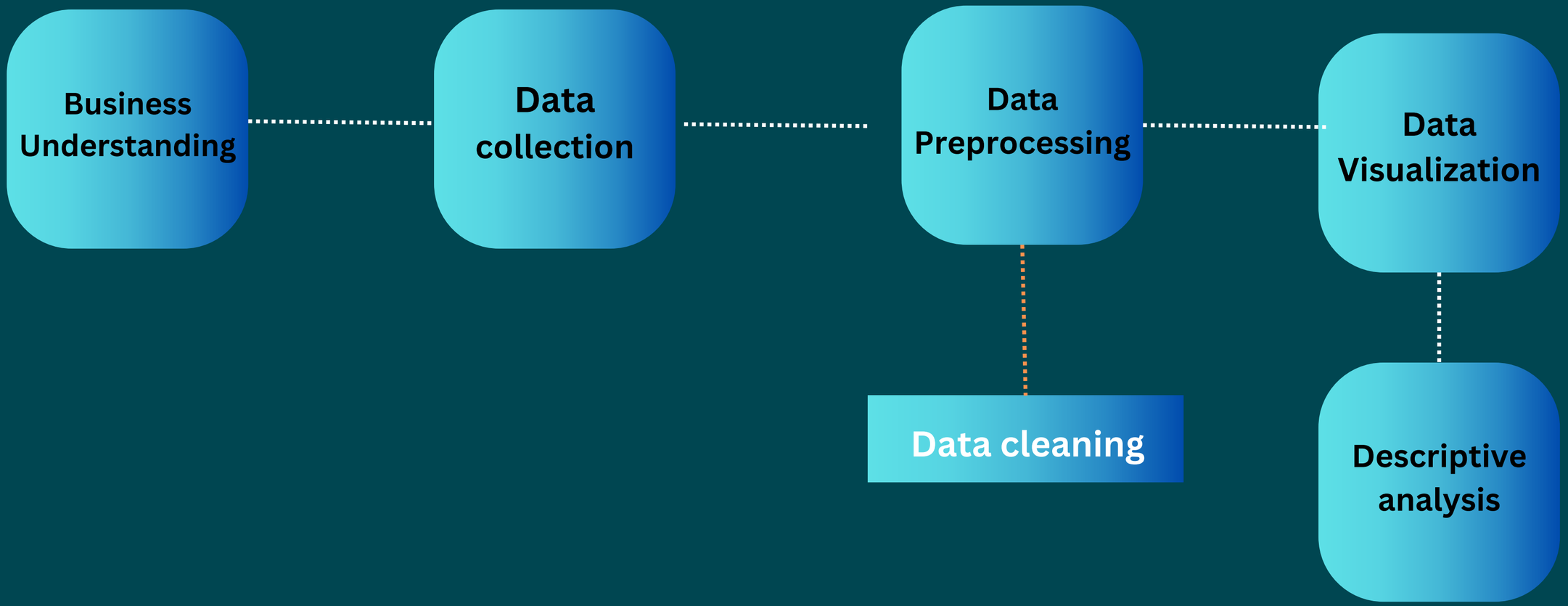
EDA on Layoffs In Company

The EDA consists of 12 columns. Here we have 12 features using this we start data analysis of LAYOFFS in company

This data set consists of information: .

- Company
- Location_HQ
- Industry
- Percentage
- Date
- Source
- Funds_Raised
- Stage
- Date_Added
- Country
- Laid_Off_Count
- List_of_Employees_Laid_Of

SYSTEM DESIGN



IMPLEMENTATION

Required Libraries to be imported :

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

Data Preprocessing

Loading Data:

```
df=pd.read_csv("G:\datascience\layoffs_data.csv
")
```

Shape Of Dataframe

df.shape

o\p
(2738, 14)

Data cleaning

Checking for missing values

#code

df.isnull().sum()

Company	**0**
Location_HQ	**0**
Industry	**0**
Percentage	**919**
Date	**0**
Source	**0**
Funds_Raised	**272**
Stage	**0**
Date_Added	**0**
Country	**0**
Laid_Off_Count	**867**
List_of_Employees_Laid_Off	**1**

After replacing the null value with the mean value of that column

01

```
df['Percentage'].mean()
```

0.26528174821330025

02

Company	0
Location_HQ	0
Industry	0
Percentage	0
Date	0
Source	0
Funds_Raised	272
Stage	0
Date_Added	0
Country	0
Laid_Off_Count	867
List_of_Employees_Laid_Off	1

df['Funds_Raised'].mean
()

805.9941182076236

After replacing the null value with the mean value of that column

Company	0
Location_HQ	0
Industry	0
Percentage	0
Date	0
Source	0
Funds_Raised	0
Stage	0
Date_Added	0
Country	0
Laid_Off_Count	867
List_of_Employees_Laid_Off	1

```
df['Laid_Off_Count'].mean
()
```

252.40566541956173

After replacing the null value with the mean value of that column

Company	0
Location_HQ	0
Industry	0
Percentage	0
Date	0
Source	0
Funds_Raised	0
Stage	0
Date_Added	0
Country	0
Laid_Off_Count	0
List_of_Employees_Laid_Off	1

As there is only one missing value we can fill it by ‘Unknown’

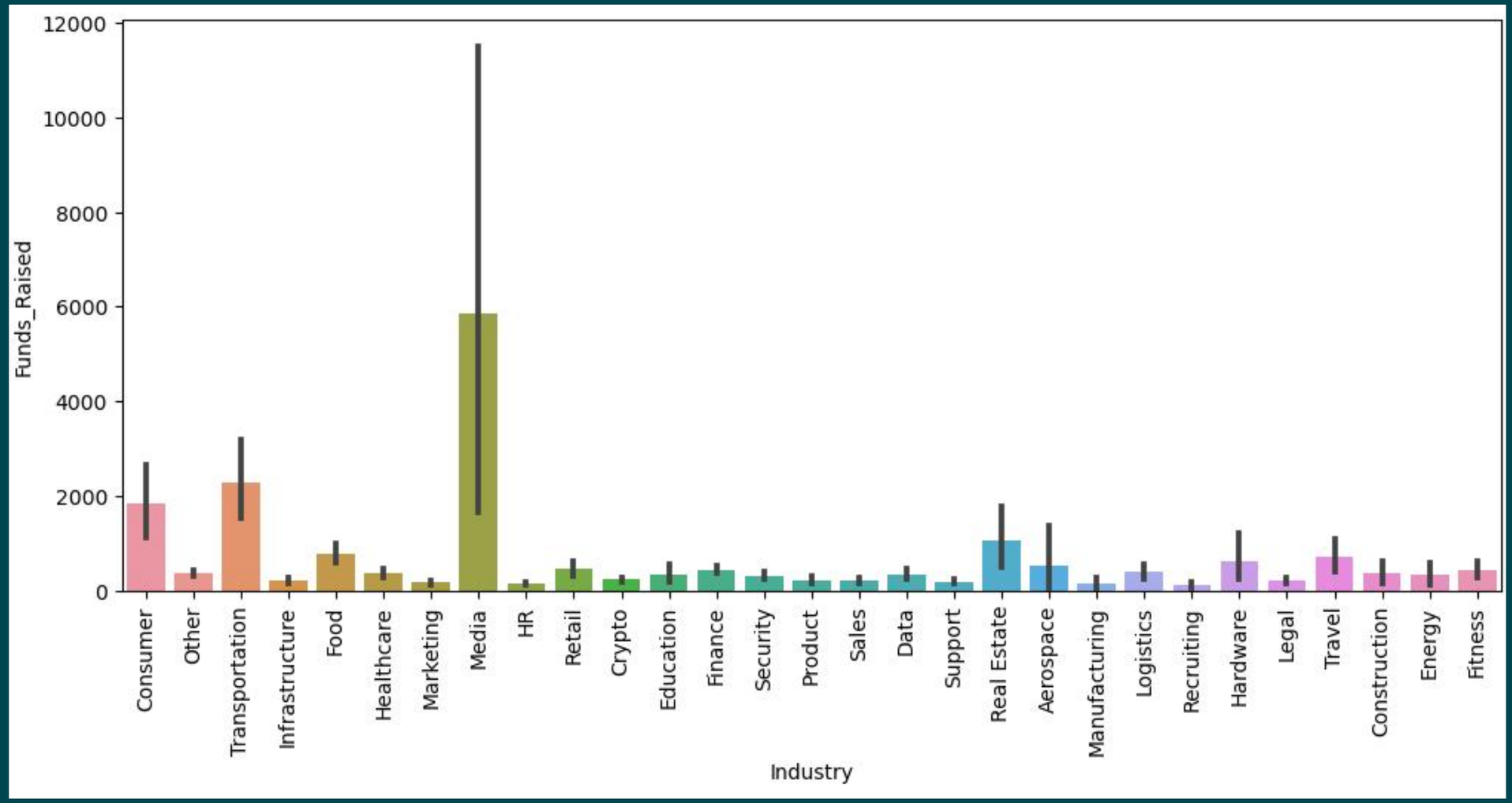
```
df['List_of_Employees_Laid_Off']=df['List_of_Employees_Laid_Off'].fillna('unknown')
```

Company	0
Location_HQ	0
Industry	0
Percentage	0
Date	0
Source	0
Funds_Raised	0
Stage	0
Date_Added	0
Country	0
Laid_Off_Count	0
List_of_Employees_Laid_Off	0

End of Data Preprocessing

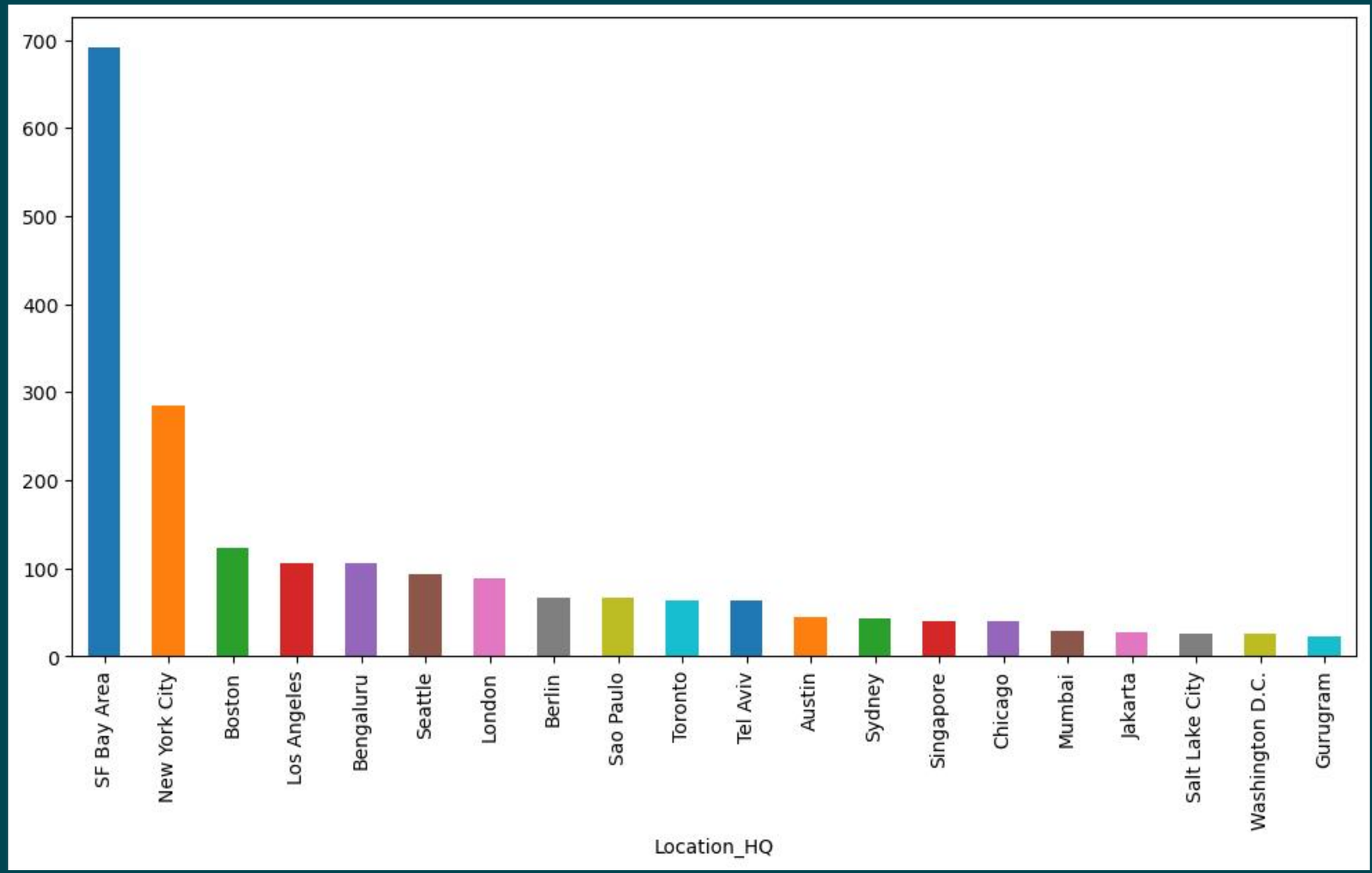
EXPLORATORY DATA ANALYSIS

Q1.
Industries That have raised the highest Funds

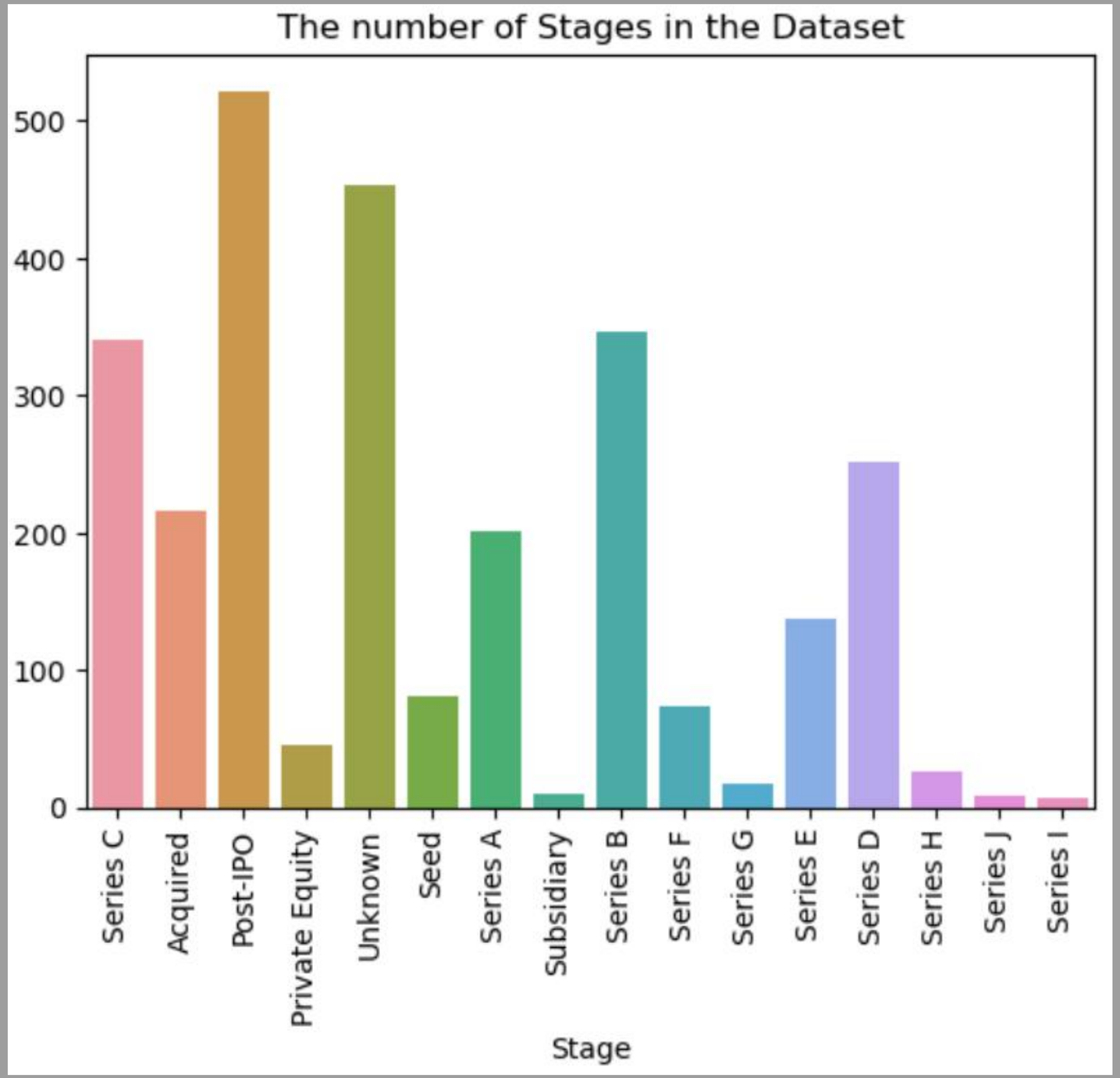


Media Industry has raised the highest funds

Q2.
In which country there are most head quarters



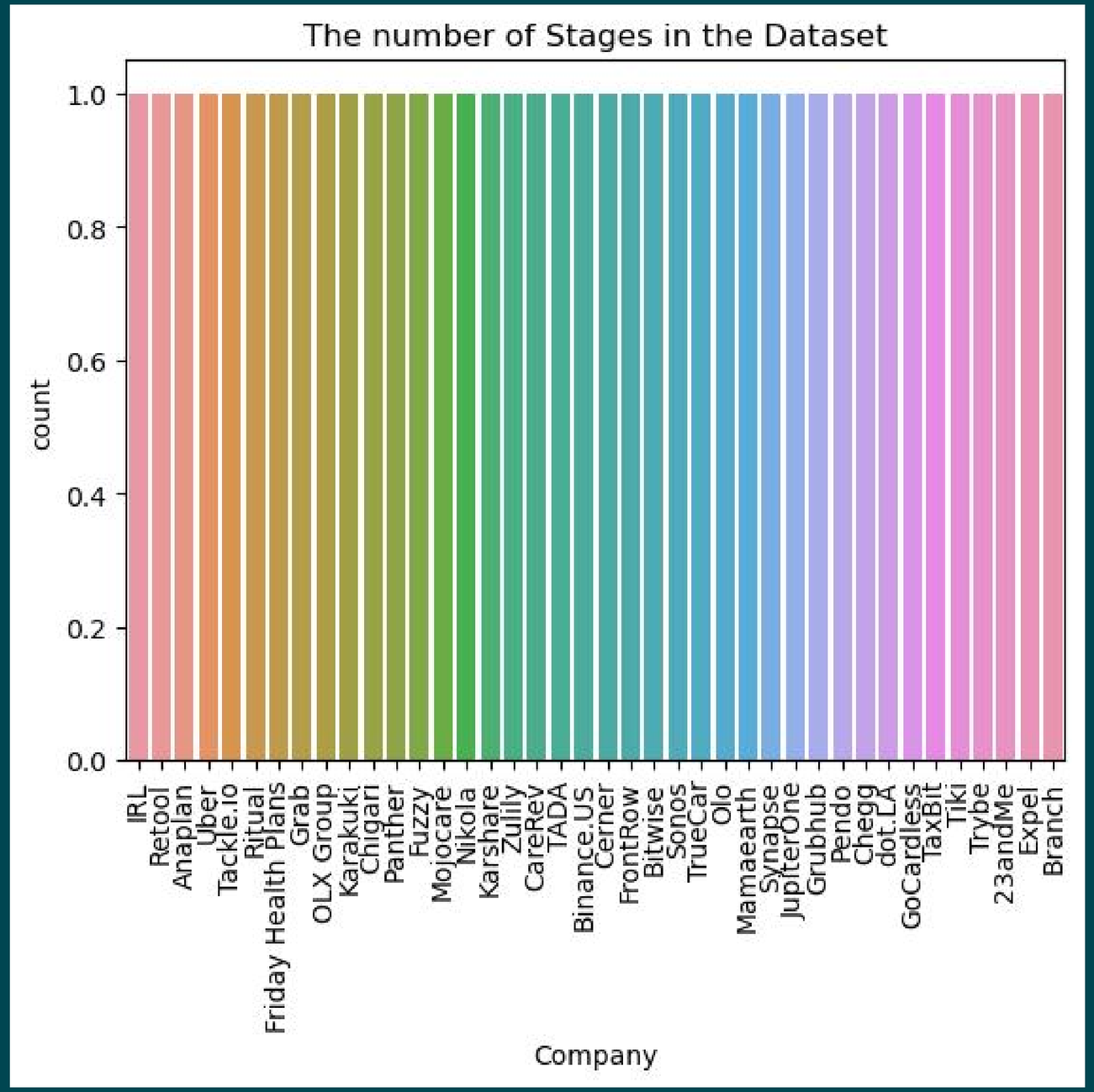
San Francisco
Bay Area has
the highest
Head Quarters



Q3.
what are the Types of stages in the dataset?

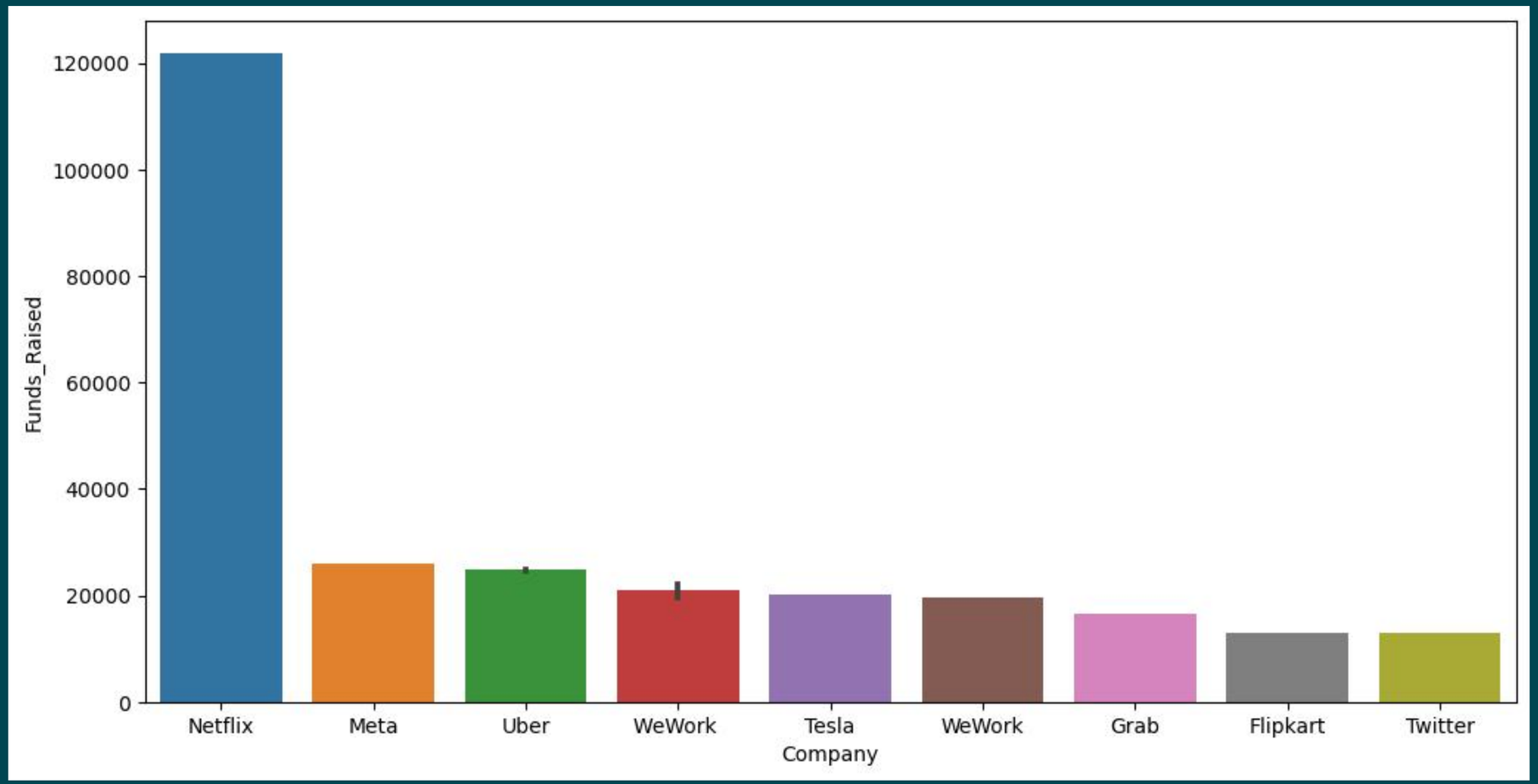
Post -IPO is highest stage in the dataset

IPO stands for Initial Public Offering



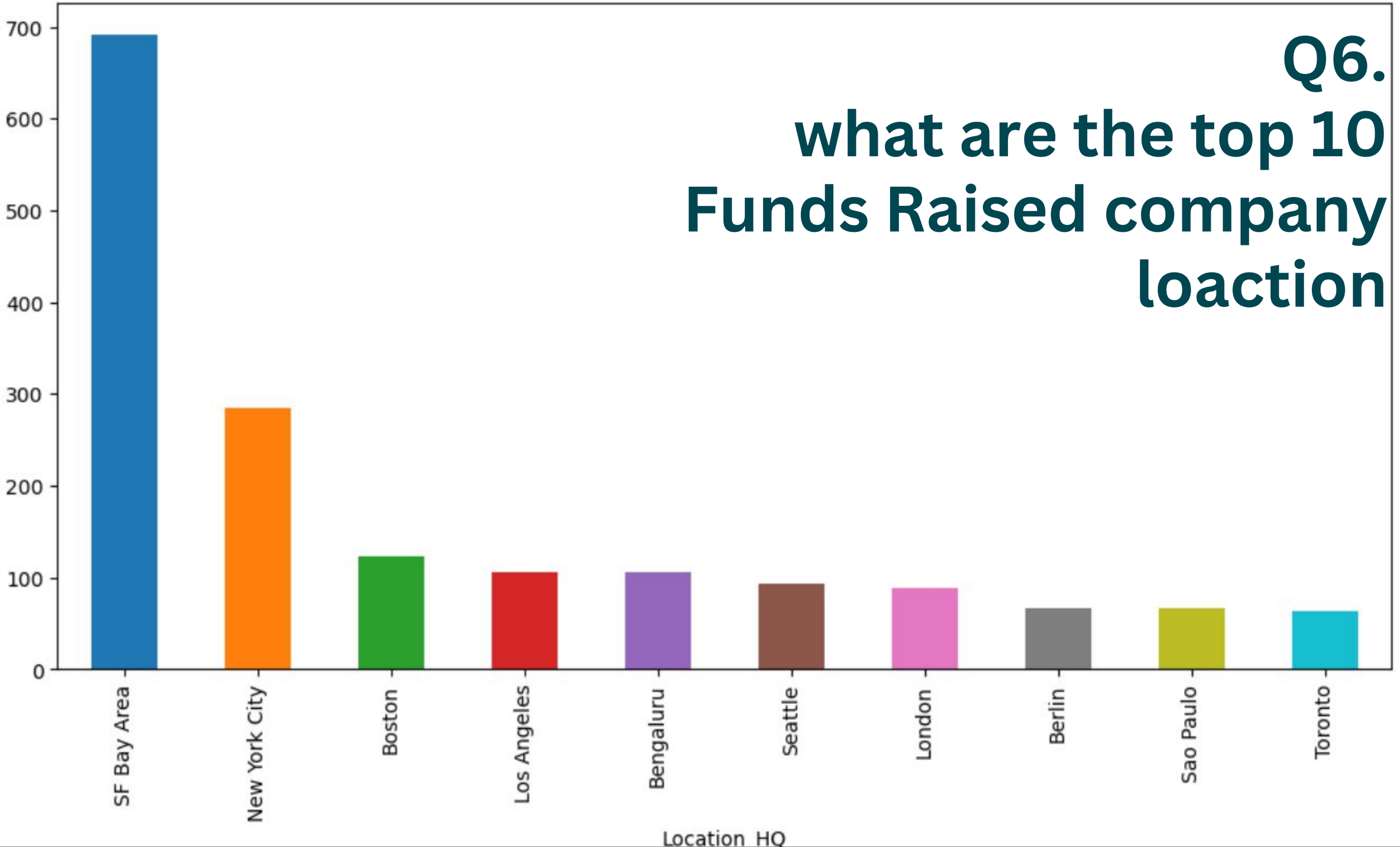
Q4.
what are the company stages in the dataset?

Q5.
which are the largest fund raised company?



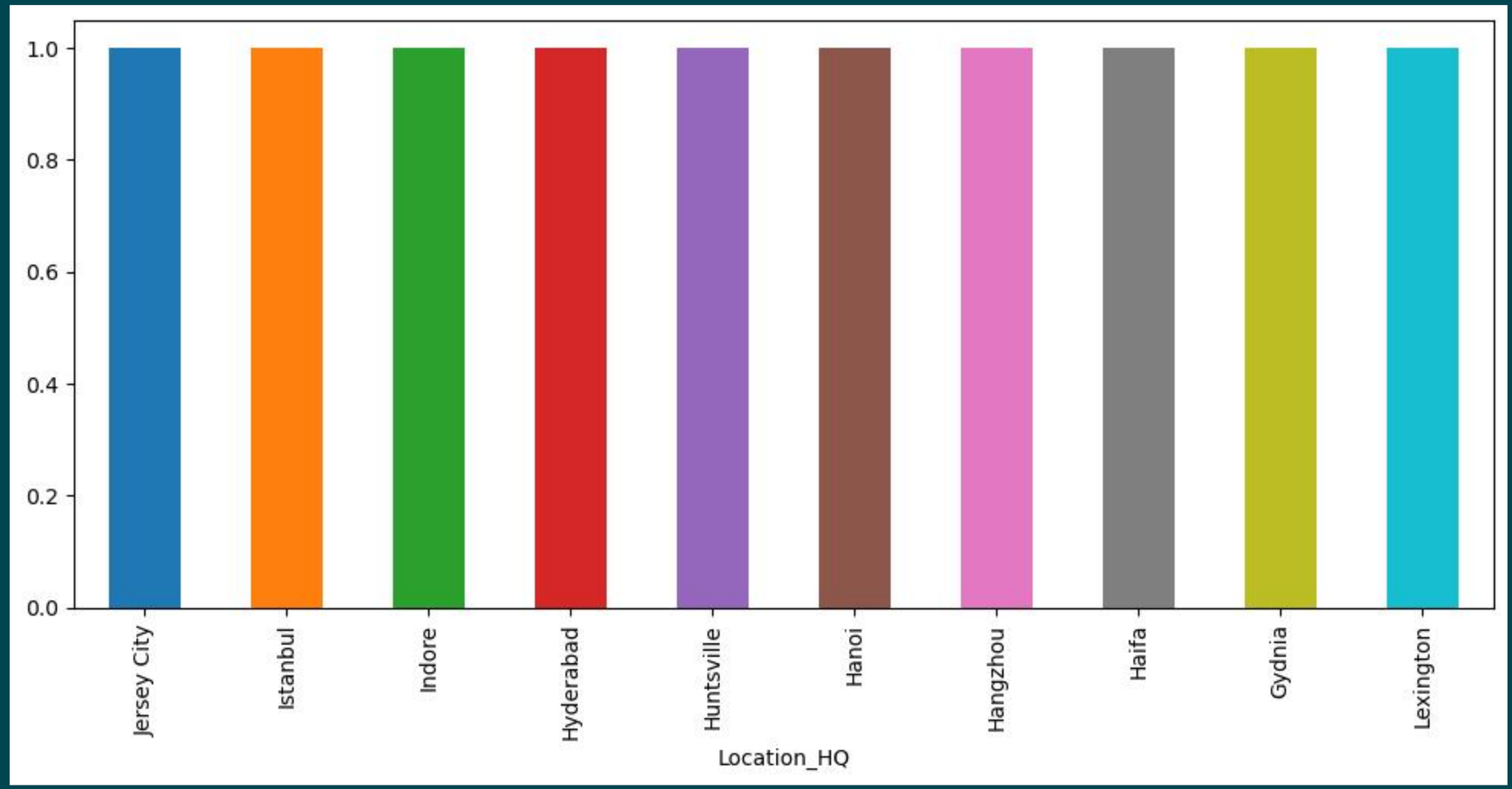
Netflix is the highest
fund raised
company

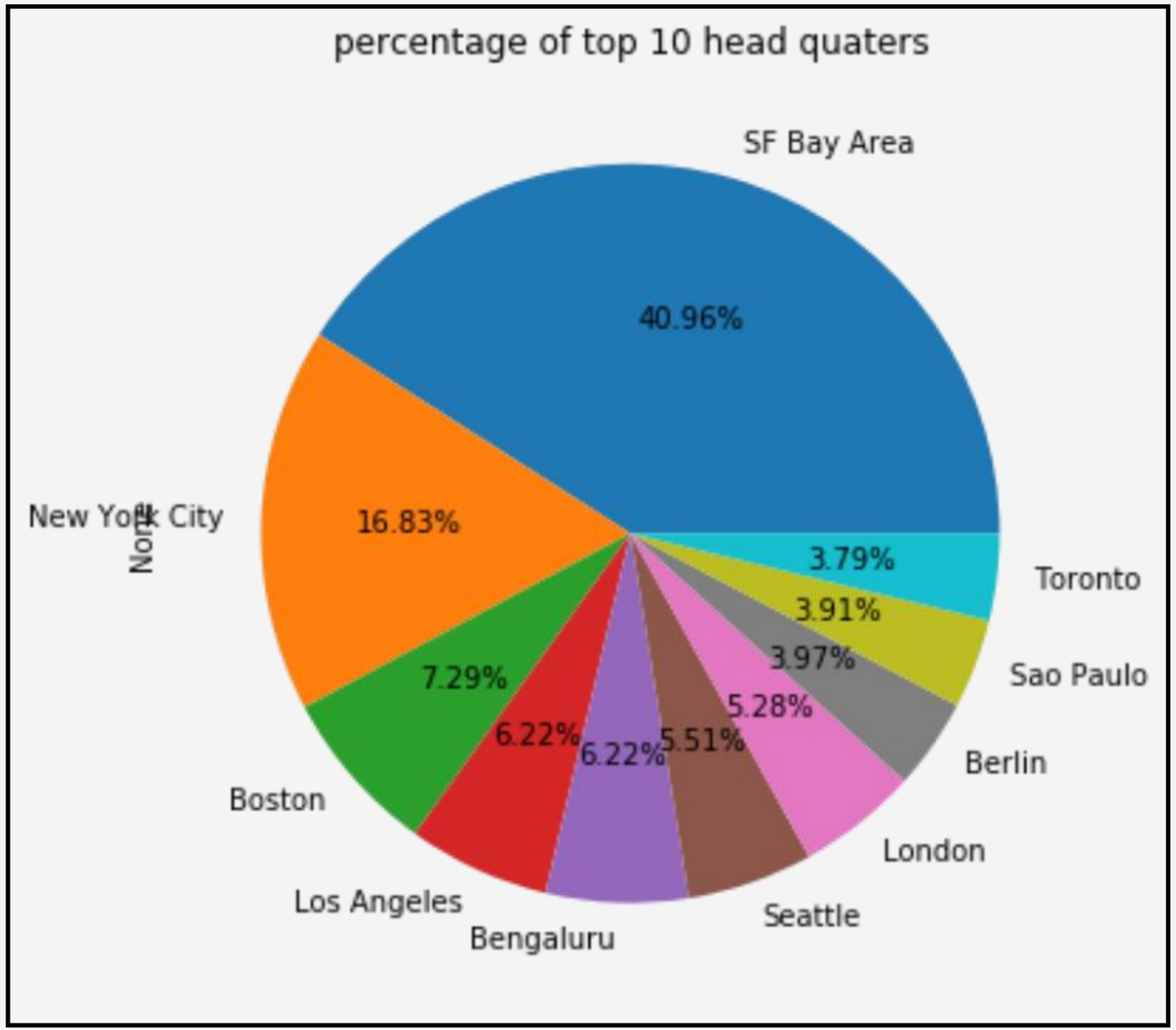
Q6.
what are the top 10 Funds Raised company loaction



San Francisco
Bay Area has
the highest
fund raised

Q7.
What are the least 10 head quarters located cities?





Q8.
What is the percentage of top 10 head quarters?

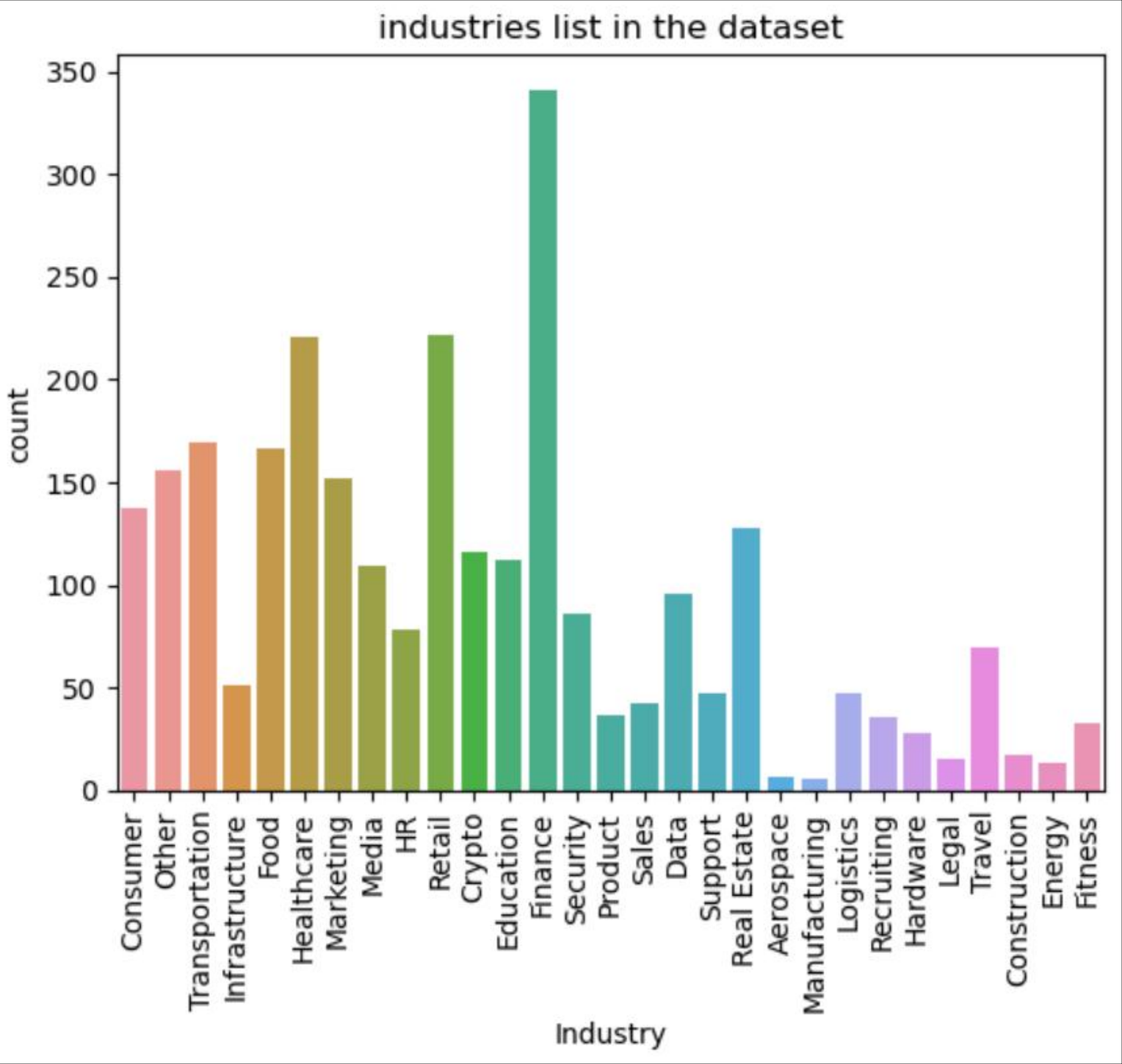
We can observe from the pie chart that

The highest percentage of the Head Quarter is San Francisco Bay Area

The lowest percentage of the Head Quarter is Toronto

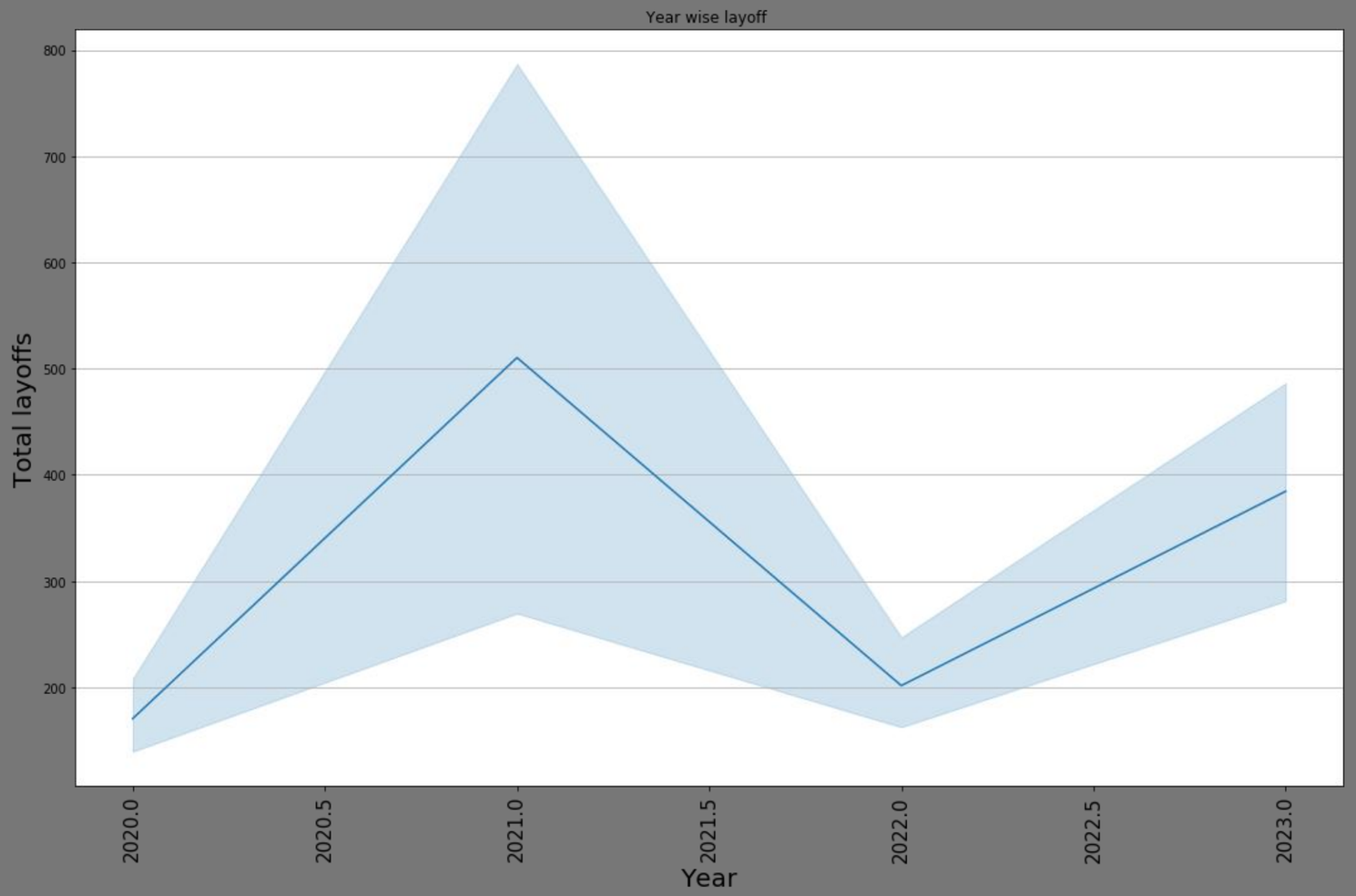
Q9.

Some of the industries present in dataset.



Finance industry is the highest industry

Manufacturing is the lowest industry

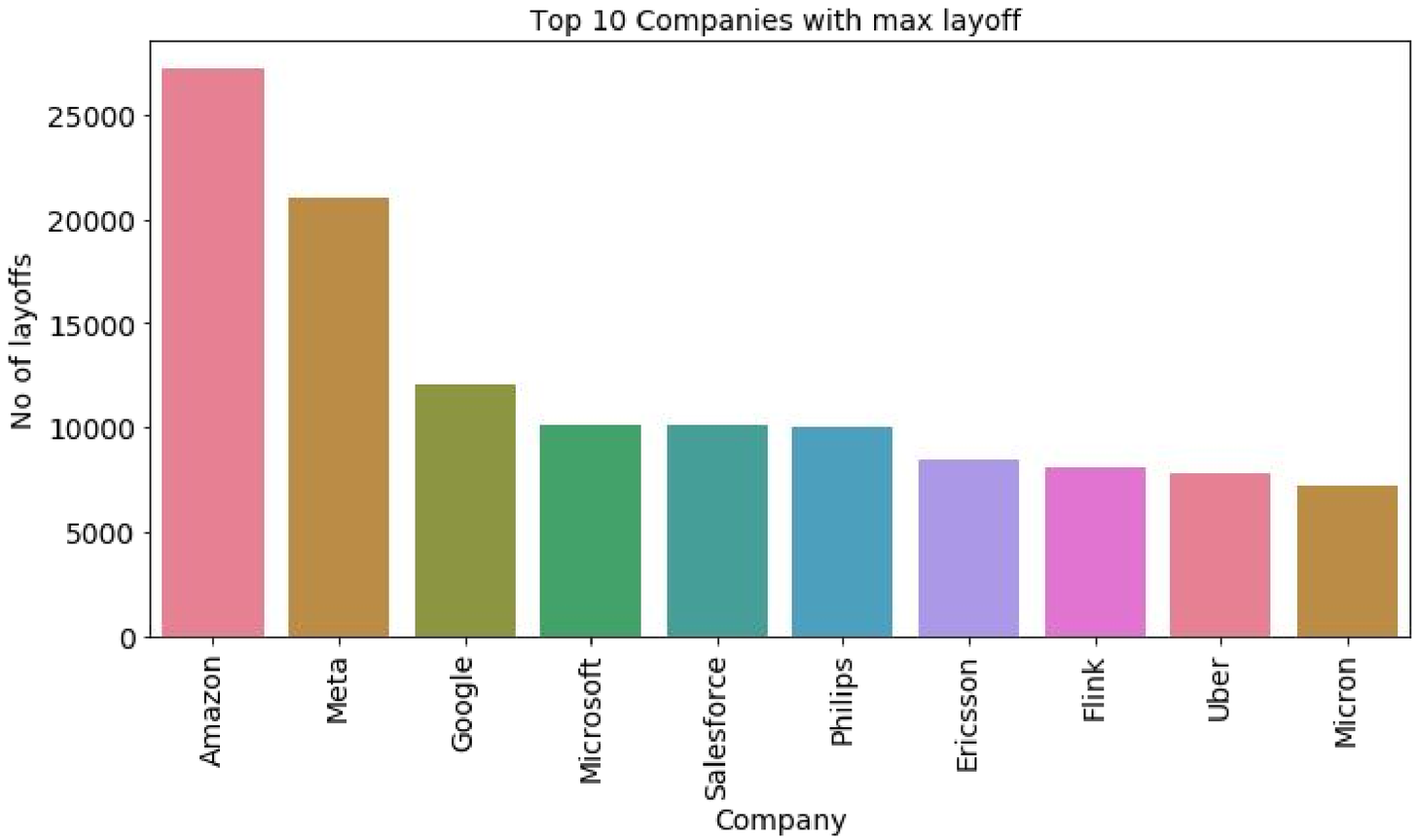


10.
Let us check the year wise Layoffs

THE HIGHEST LAYOFFS WERE IN THE YEAR OF 2020

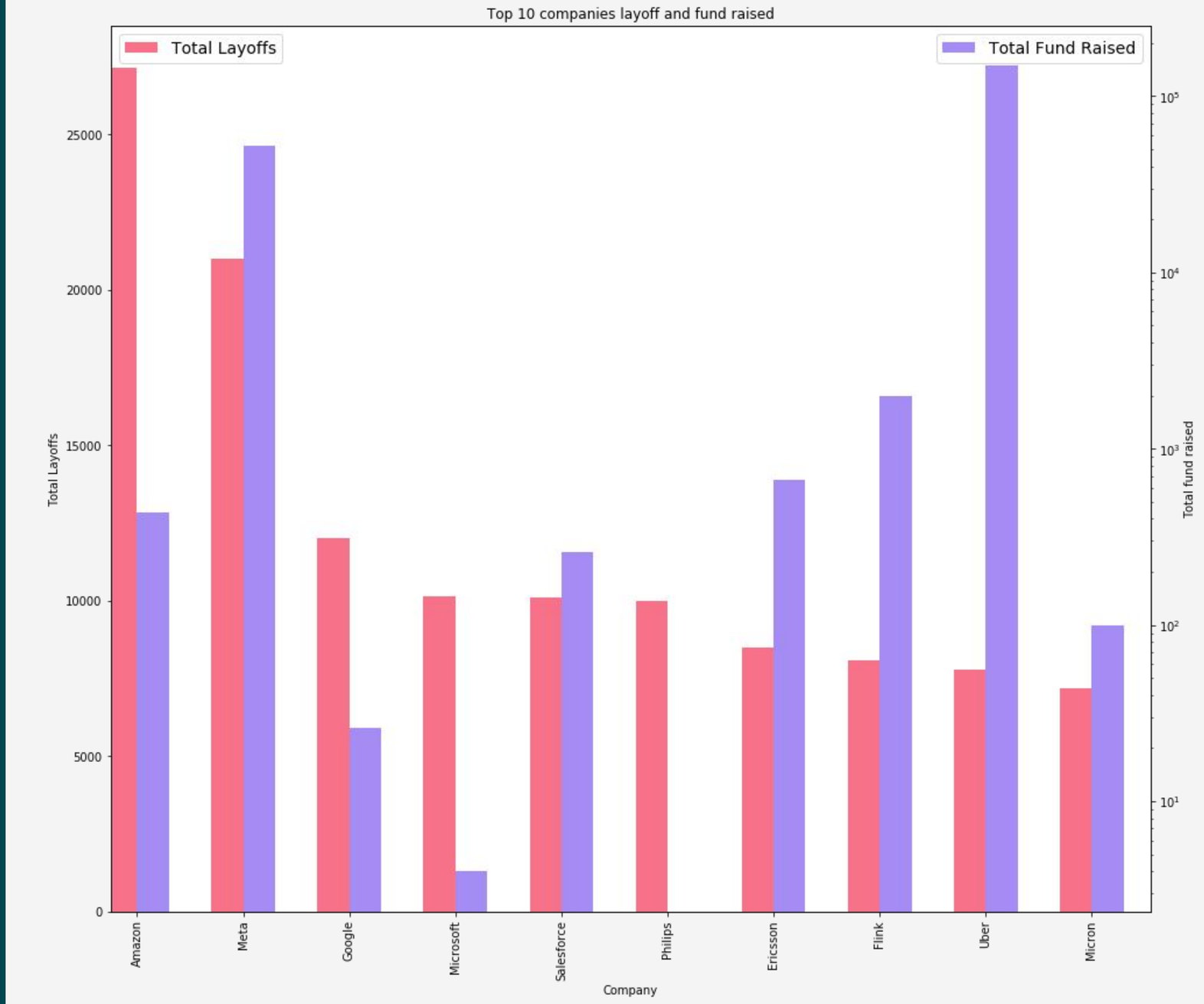
	Year	Laid_Off_Count
0	2020	80998.0
1	2021	15823.0
2	2022	164709.0
3	2023	210721.0

Q11.
Top 10 companies with maximum layoffs



Amazon has the highest Layoffs

Q12. Relationship B\W Funds received and Layoffs

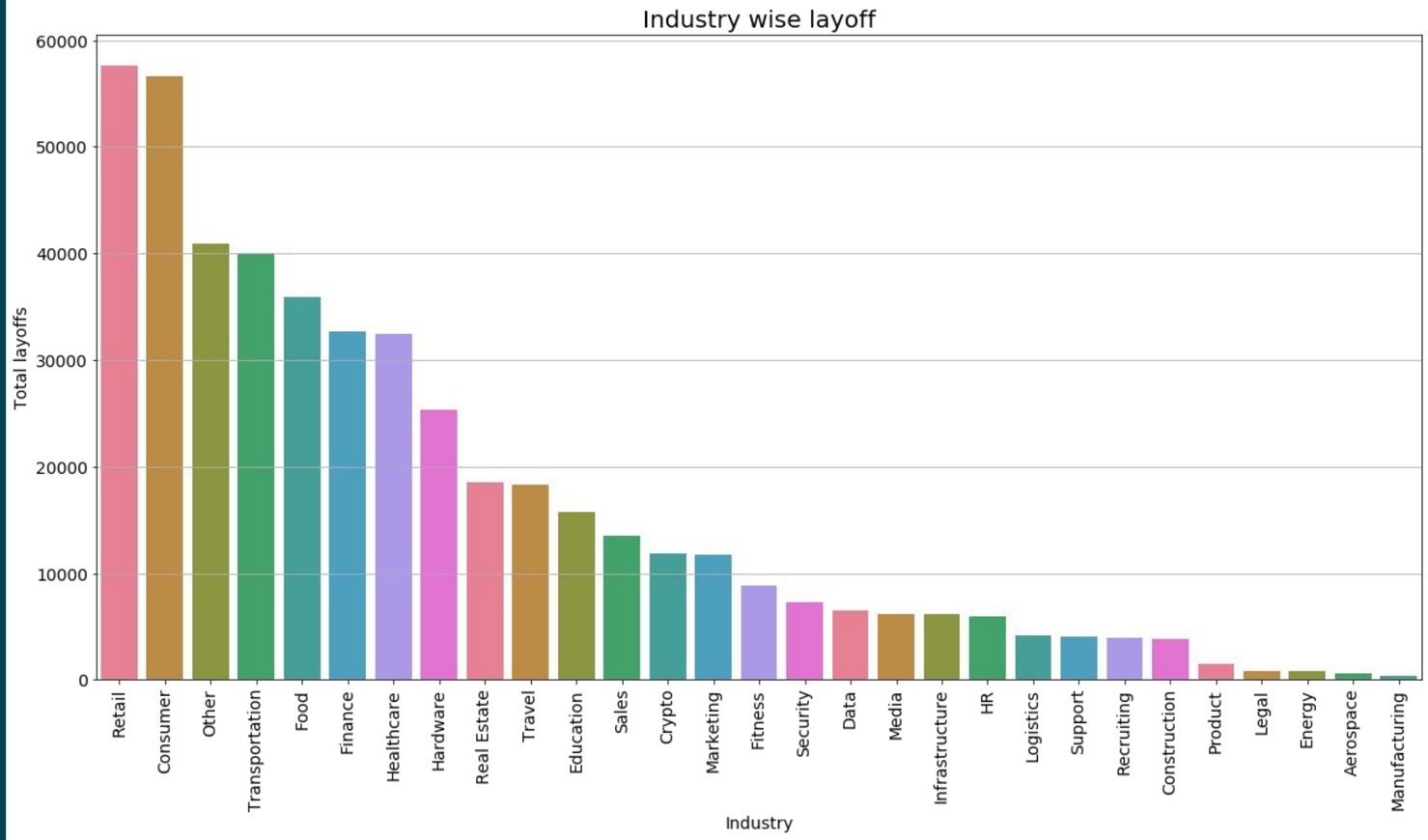


We can observe that:

As the Amazon has the highest Layoffs but its funds are not raised

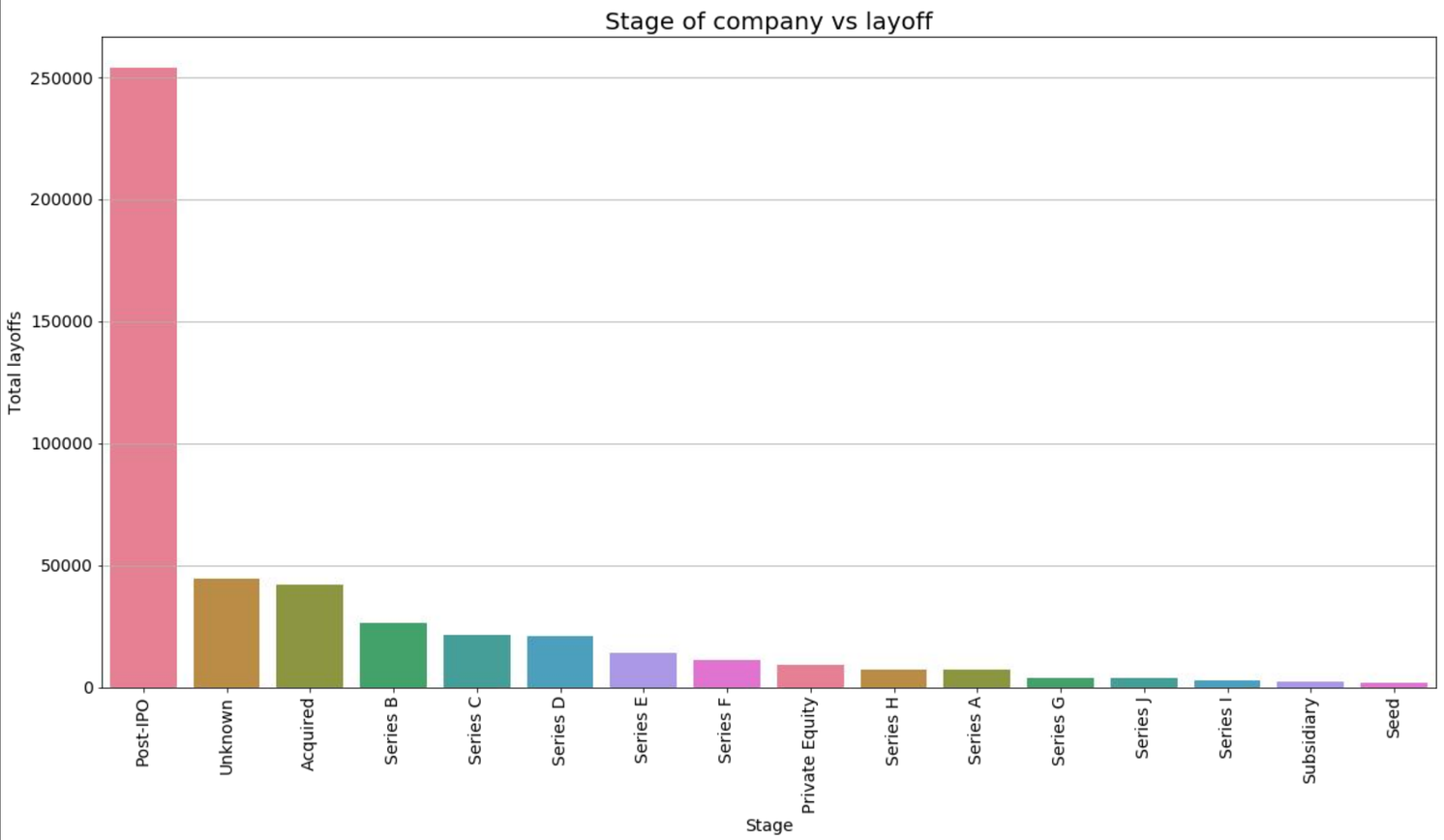
As the Uber company has the highest Funds raised but its Layoffs are not high

Q13. Industry wise Layoffs



We can observe that:

- **Highest Layoffs are in the retail industry**
- **Lowest Layoffs are in the Manufacturing Industry**



Q13.
In which stage of company had the most Layoffs

We can observe that:

- **Highest Layoffs are in the Post-IPO stage**
- **Lowest Layoffs are in the Seed Stage**

CONCLUSION

- Media Industry has raised the highest funds

- Post -IPO is highest stage in the dataset
- Netflix is the highest fund raised company
- San Francisco Bay Area has the highest fund raised
- The highest percentage of the Head Quarter is San Francisco Bay Area The lowest percentage of the Head Quarter is Toronto
- Finance industry is the highest industry
- Manufacturing is the lowest industry
- The highest Layoffs were in the year of 2020
- As the Amazon has the highest Layoffs but its funds are not raised
- As the Uber company has the highest Funds raised but its Layoffs are not high

Thank You