Recession Data analysis using the Layoffs Data 2022 Dataset

Introduction:

This document analyzes the layoffs in various organizations using a dataset obtained from Kaggle (https://www.kaggle.com/datasets/theakhilb/layoffs-data-2022?resource=download). The analysis includes data preprocessing, aggregation, visualization, and identifying companies that have benefitted from layoffs.

Data Preprocessing:

a. Import numpy and pandas libraries.

b. Load the dataset (layoffs_data.csv) into a DataFrame.

1. c. Remove unnecessary columns, fill in missing values, and convert the 'Date' column to a datetime object.

Data Aggregation:

2. a. Aggregate the laid off count by industry, location, and country.

Data Visualization:

3. a. Create pie charts to show the number of people laid off in each industry, location, and country.

Top Five Countries Analysis:

a. Focus on the top five countries with the most layoffs.

b. Calculate the total number of employees in each organization.

4. c. Group the data by industry to find the total employee count and laid off count for every industry.

Industry-wise Layoff Percentage:

a. Calculate the layoff percentage for each industry in the USA, India, Netherlands, United Kingdom, and Brazil.

5. b. Visualize the results in bar graphs.

Headquarters Location Analysis:

a. Analyze the data based on the location headquarters for companies belonging to the worstly affected countries.

b. Calculate the employee and layoff count (headquarter location-wise) for each country.

6. c. Create line graphs depicting the headquarter location-wise layoff percentage.

Identifying Companies Benefitting from Layoffs:

a. Create a 'Benefit' column in the dataset.

b. Calculate the average benefit for each company.

c. Sort the companies by average benefit in descending order.

d. Plot a bar graph of the top five most profitable companies.

7. e. Create a heatmap to visualize the benefit of Netflix across different days and headquarter locations.

Conclusion:
The analysis provides insights into the impact of layoffs across different industries and countries, as well as the effect of headquarters' location on layoffs. Furthermore, it identifies companies that have benefitted from layoffs, with Netflix being the most notable example. It is important to note that correlation does not imply causation, and other factors may contribute to the observed differences in layoff percentages.