

Visualization_of_Tech_Layoffs_in_2022

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```
# attach the tidyverse package
```

```
library(tidyverse)
```

```
## -- Attaching packages ----- tidyverse 1.3.2 --
```

```
## v ggplot2 3.4.0      v purrr  1.0.0
```

```
## v tibble  3.1.8      v dplyr  1.0.10
```

```
## v tidyr   1.2.1      v stringr 1.5.0
```

```
## v readr   2.1.3      v forcats 0.5.2
```

```
## -- Conflicts ----- tidyverse_conflicts() --
```

```
## x dplyr::filter() masks stats::filter()
```

```
## x dplyr::lag()     masks stats::lag()
```

```
# import the dataset
```

```
tech_layoffs <- read.csv("Tech_Layoffs_of_2022.csv")
```

```
head(tech_layoffs)
```

```
##   X   Company Founded Layoff   Month Year
```

```
## 1 0 Microsoft   1975   1000 October 2022
```

```
## 2 1  Twitter   2006   3700 November 2022
```

```
## 3 2    Meta    2004  11000 November 2022
```

```
## 4 3  Netflix   1997    300   June 2022
```

```
## 5 4    Udaan   2016    350 November 2022
```

```
## 6 5 Unacademy  2015    350 November 2022
```

```
# drop unnecessary columns
```

```
tech_layoffs <- subset (tech_layoffs, select = -X)
```

```
head(tech_layoffs)
```

```
##   Company Founded Layoff   Month Year
```

```
## 1 Microsoft   1975   1000 October 2022
```

```
## 2  Twitter   2006   3700 November 2022
```

```
## 3    Meta    2004  11000 November 2022
```

```
## 4  Netflix   1997    300   June 2022
```

```
## 5    Udaan   2016    350 November 2022
```

```
## 6 Unacademy  2015    350 November 2022
```

```
# find the total number of layoffs for each company
```

```
total_layoffs <- tech_layoffs %>% group_by(Company) %>% summarise(total_number_of_layoffs= sum(Layoff))
```

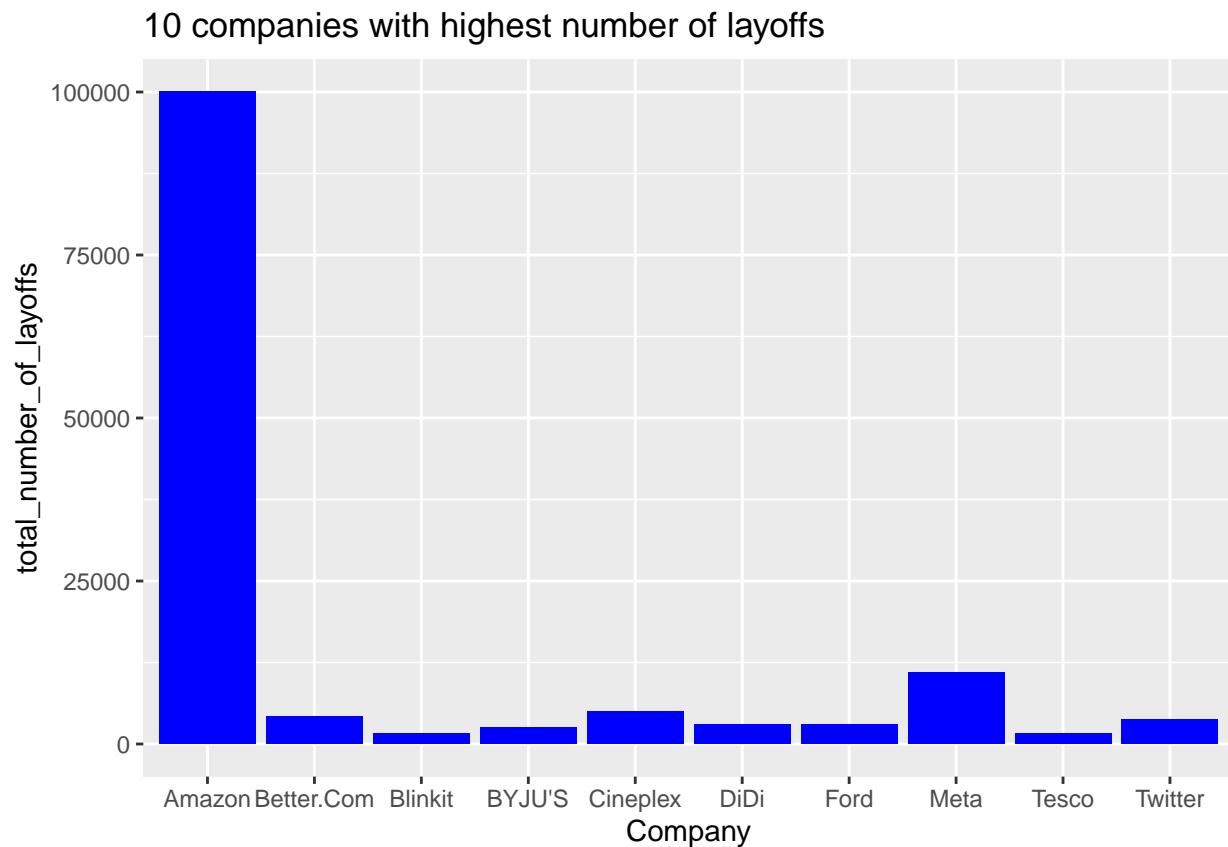
```
view(total_layoffs)
```

```
# 10 companies with highest number of layoffs
```

```
top_10 <- head(arrange(total_layoffs, desc(total_number_of_layoffs)), n = 10)
```

```
view(top_10)
```

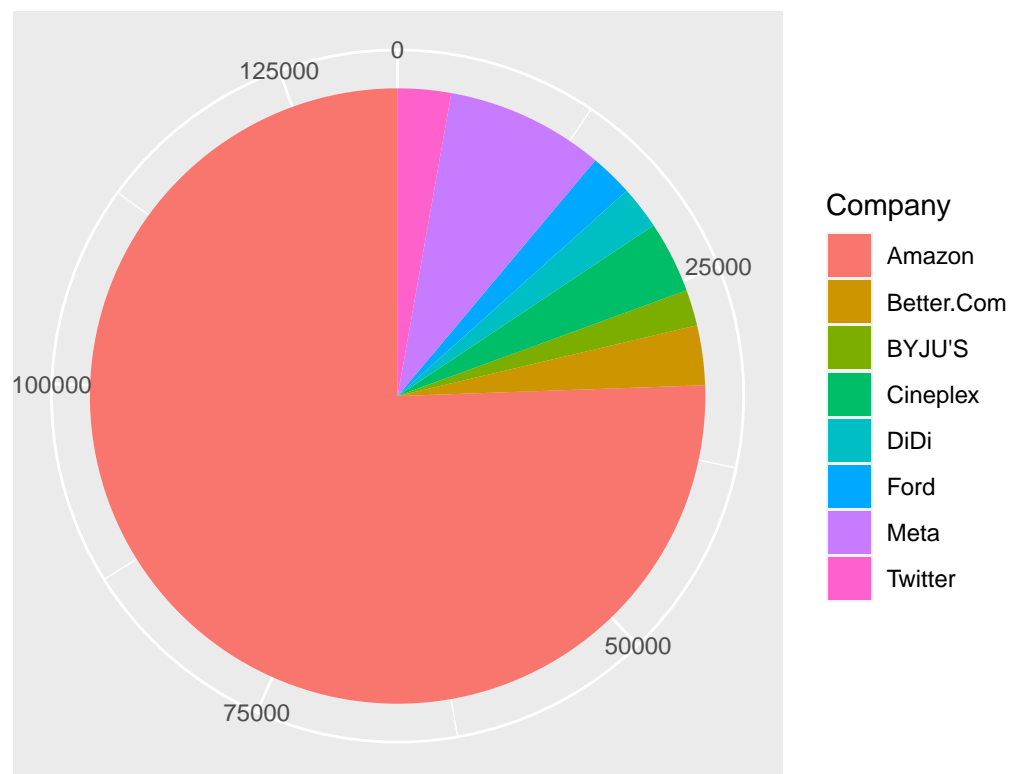
```
ggplot(top_10)+ geom_col(mapping = aes(x=Company, y=total_number_of_layoffs), fill = "blue") + labs(tit.
```



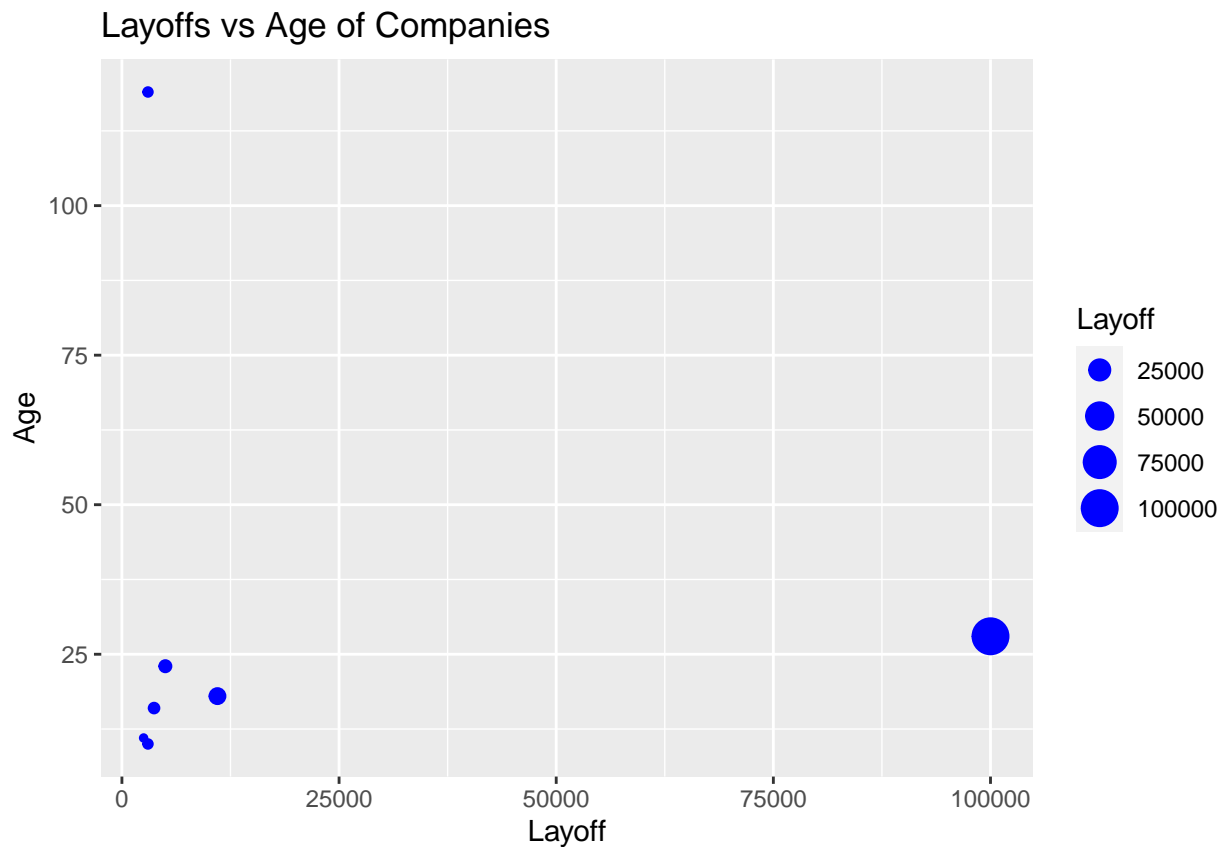
[1] "Top 10 companies with high number of layoffs include not only startups but also tech giants"

```
# Companies with a high number of layoffs (>2000)
high_layoffs <- filter(total_layoffs, total_number_of_layoffs > 2000)
view(high_layoffs)
ggplot(high_layoffs, aes(x = "", y= total_number_of_layoffs, fill = Company)) +
  geom_col() +
  coord_polar(theta = "y")+
  theme(axis.title.x=element_blank(),
        axis.ticks.x=element_blank(),
        axis.title.y=element_blank(),
        axis.ticks.y=element_blank()) +
  labs(title = "Companies with more than 2000 layoffs")
```

Companies with more than 2000 layoffs



```
# Find the age of companies with a high number of layoffs
layoffs_by_company_age <- mutate(tech_layoffs, Age=Year-Founded)
layoffs_by_company_age <- filter(layoffs_by_company_age, Layoff > 2000)
view(layoffs_by_company_age)
ggplot(layoffs_by_company_age)+
  geom_point(mapping = aes(x=Layoff, y=Age, size=Layoff), color="blue")+
  labs(title = "Layoffs vs Age of Companies")
```



```
## [1] "Most of the companies having high number of layoffs are over 15 years old"
```

```
# 3 months with highest number of layoffs
```

```
layoffs_by_month <- tech_layoffs %>% group_by(Month) %>% summarise(total_number_of_layoffs= sum(Layoff))
head(arrange(layoffs_by_month,desc(total_number_of_layoffs)), n = 3)
```

```
## # A tibble: 3 x 2
```

```
##   Month      total_number_of_layoffs
```

```
##   <chr>                <int>
```

```
## 1 July                 101350
```

```
## 2 November             15400
```

```
## 3 January              7600
```

```
## [1] "With Amazon alone laying off 100000 employees, July is the month with highest number of layoffs"
```