

```
In [1]: #Import the modules
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns
import warnings
warnings.filterwarnings('ignore')
plt.style.use('ggplot')
color=plt.rcParams['axes.prop_cycle'].by_key()['color']
```

## Loading the dataset

```
In [2]: data=pd.read_csv('/kaggle/input/indian-startups-top-300/Startups1.csv')
data.head().style.background_gradient(cmap='seismic')
```

Out[2]:

Unnamed: 0	Company	City	Starting Year	Founders	Industries	Description	No. of Employees	Fun Am
0	Urban Company	Gurgaon	2014	Abhiraj Singh Bhal, Raghav Chandra, Varun Khaitan	Apps, Home Services, Marketplace, Service Industry	Urban is a marketplace for independent contractors.	1001-5000	44592
1	Classplus	Noida	2018	Bhaswat Agarwal, Bikash Dash, Mukul Rustagi, Nikhil Goel, Vatsal Rustagi	B2B, E-Learning, EdTech, Education, Mobile Apps, SaaS, Software	Classplus is a mobile-first SaaS platform that allows 3000+ tutors to totally automate their curriculum and operations.	101-250	8950
2	Paytm	Noida	2010	Akshay Khanna, Vijay Shekhar Sharma	E-Commerce, Finance, Financial Services, Internet, Mobile Apps, Mobile Payments	Paytm is a payment gateway that allows users and businesses to make payments.	501-1000	3244
3	Apna	Mumbai	2019	Nirmit Parikh	Employment, Human Resources, Recruiting, Staffing Agency	Apna is a professional networking and job-search platform that connects blue- and gray-collar professionals with like-minded people and places to work.	101-250	9345
4	Razorpay	Bengaluru	2014	Harshil Mathur, Shashank Kumar	Financial Services, FinTech, Payments, Software	Razorpay is a payment acceptance, processing, and disbursement platform for businesses.	1001-5000	36660

# Data Preprocessing

```
In [3]: data=data.drop(['Unnamed: 0'],axis=1)
```

```
In [4]: #shape of the data
data.shape
```

```
Out[4]: (300, 10)
```

```
In [5]: data.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 300 entries, 0 to 299
Data columns (total 10 columns):
 #   Column           Non-Null Count  Dtype  
 ---  -- 
 0   Company          300 non-null    object  
 1   City              300 non-null    object  
 2   Starting Year     300 non-null    int64  
 3   Founders          300 non-null    object  
 4   Industries        300 non-null    object  
 5   Description       300 non-null    object  
 6   No. of Employees  300 non-null    object  
 7   Funding Amount in $ 300 non-null    int64  
 8   Funding Round     300 non-null    int64  
 9   No. of Investors  300 non-null    int64  
dtypes: int64(4), object(6)
memory usage: 23.6+ KB
```

```
In [6]: data.describe().style.background_gradient(cmap='Reds')
```

```
Out[6]: Starting Year Funding Amount in $ Funding Round No. of Investors
```

count	300.000000	300.000000	300.000000	300.000000
mean	2013.393333	314865494.003333	5.986667	10.550000
std	5.139390	1628801803.397267	4.239465	7.530151
min	1984.000000	0.000000	0.000000	0.000000
25%	2012.000000	14287377.000000	3.000000	5.000000
50%	2015.000000	41087733.500000	5.000000	9.000000
75%	2016.000000	131943810.250000	7.000000	14.000000
max	2020.000000	24767620475.000000	25.000000	45.000000

```
In [7]: #Checking the null values in the data
data.isna().sum()/len(data)
```

```
Out[7]: Company      0.0  
City          0.0  
Starting Year  0.0  
Founders       0.0  
Industries     0.0  
Description    0.0  
No. of Employees 0.0  
Funding Amount in $ 0.0  
Funding Round   0.0  
No. of Investors 0.0  
dtype: float64
```

```
In [8]: #Correlation matrix  
sns.heatmap(data.corr(), annot=True, cmap='ocean_r')
```

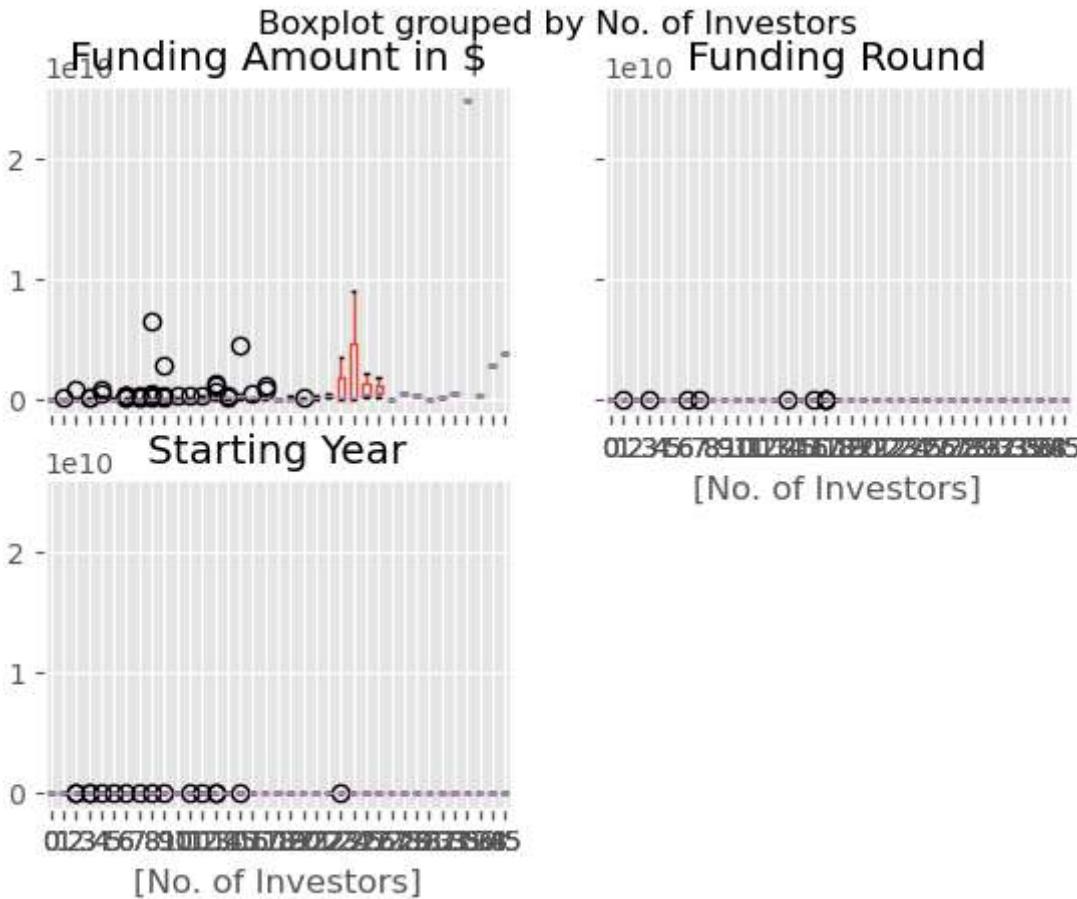
```
Out[8]: <AxesSubplot:>
```



## EXPLORE DATA ANALYSIS

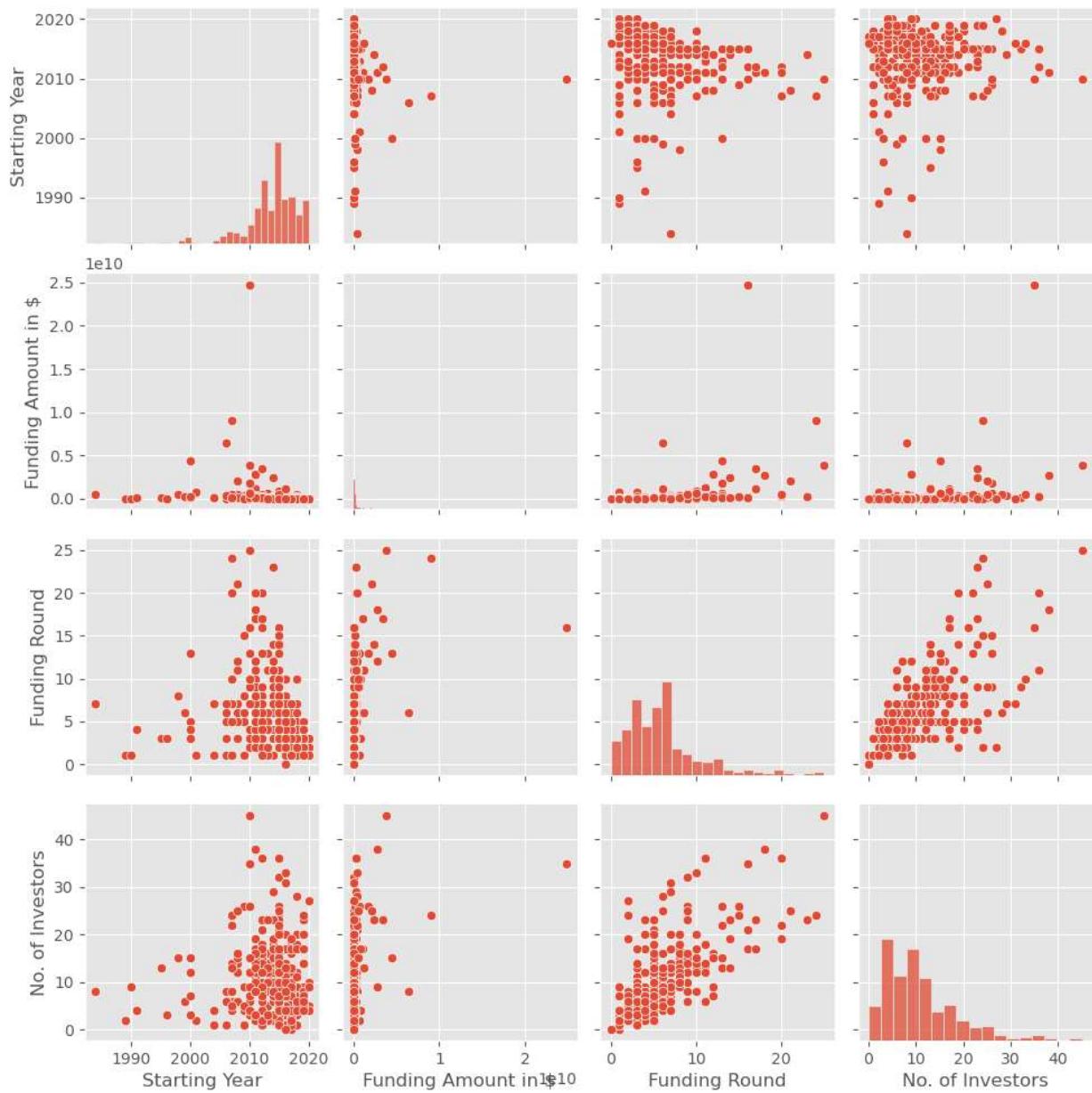
```
In [9]: plt.figure(figsize=(16,8))  
data.boxplot(by='No. of Investors')
```

```
Out[9]: array([[<AxesSubplot:title={'center':'Funding Amount in $'}, xlabel='[No. of Investor  
s]'],  
   <AxesSubplot:title={'center':'Funding Round'}, xlabel='[No. of Investors]'],  
   <AxesSubplot:title={'center':'Starting Year'}, xlabel='[No. of Investors]',  
   <AxesSubplot:>]], dtype=object)  
<Figure size 1600x800 with 0 Axes>
```



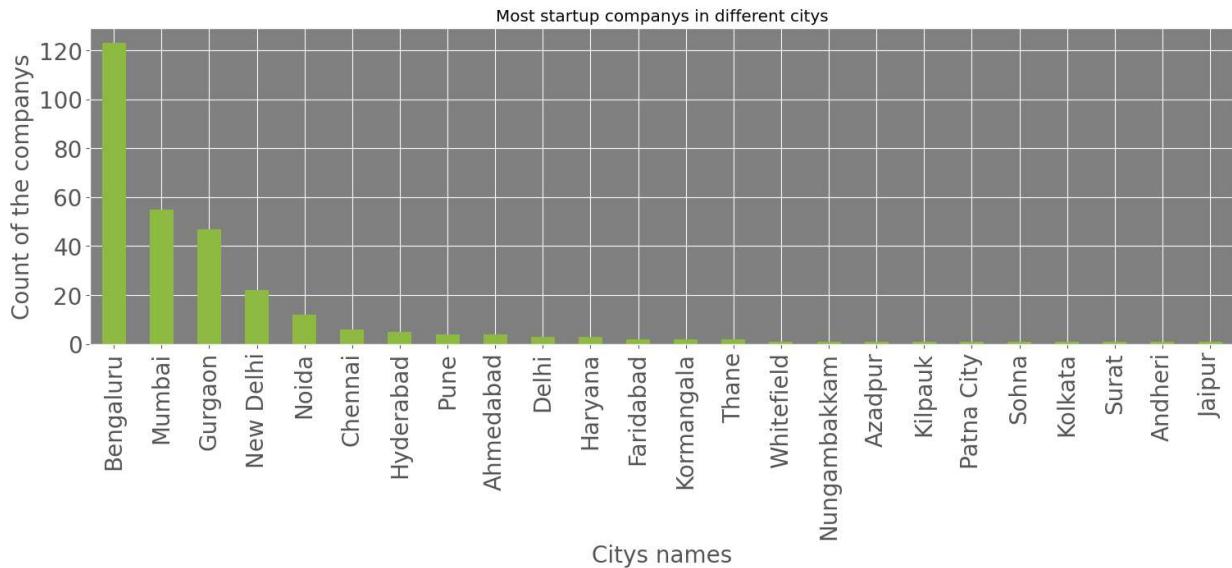
```
In [10]: sns.pairplot(data)
```

```
Out[10]: <seaborn.axisgrid.PairGrid at 0x7232c34ab590>
```



```
In [11]: #which city have more startup companys in the data
plt.rcParams['axes.facecolor']='gray'
ax=data['City'].value_counts()\
.sort_values(ascending=False) \
.plot(kind='bar',title='Most startup companys in different citys',figsize=(18,5),color='red')
ax.set_xlabel("Citys names",fontsize=20)
ax.set_ylabel("Count of the companys",fontsize=20)
```

Out[11]: Text(0, 0.5, 'Count of the companys')



## About the chart

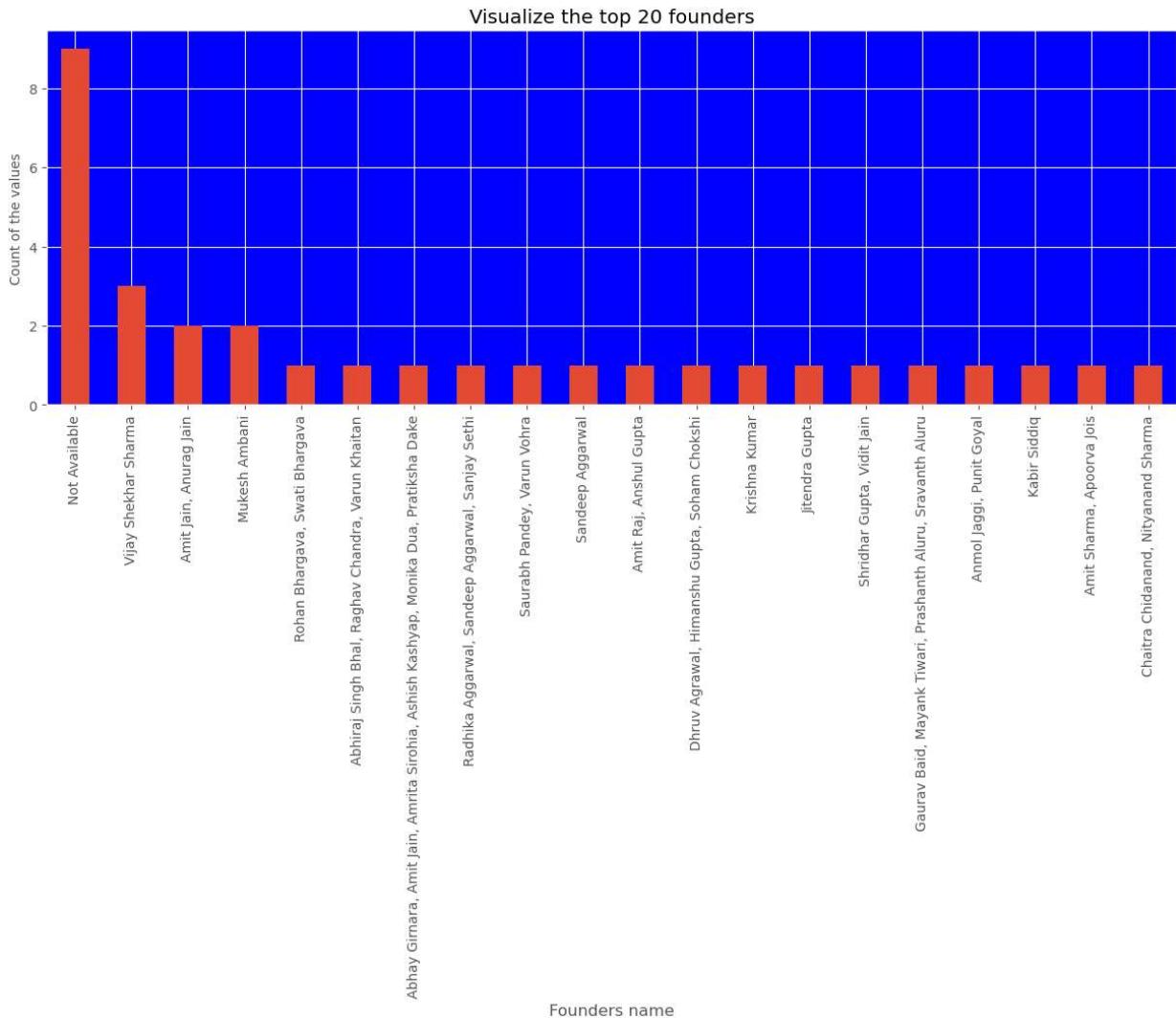
- From the above bar chart we get most startup companies located in Bengaluru, After that Mumbai, Gurgaon, New Delhi
- Jaipur have low startup companies in the data \*

```
In [12]: # write a query for identify the mukesh ambani companys
data.query('Founders == "Mukesh Ambani"')
```

Out[12]:

	Company	City	Starting Year	Founders	Industries	Description	No. of Employees	Funding Amount in \$
32	Reliance Jio	Mumbai	2010	Mukesh Ambani	Apps, Information Services, Internet, Telecomm...	Reliance Jio is a telecommunications firm that...	10001+	24767620475
37	Reliance Retail	Mumbai	2006	Mukesh Ambani	Consumer Goods, Grocery, Retail	Reliance Retail operates a chain of local stor...	10001+	6419310306

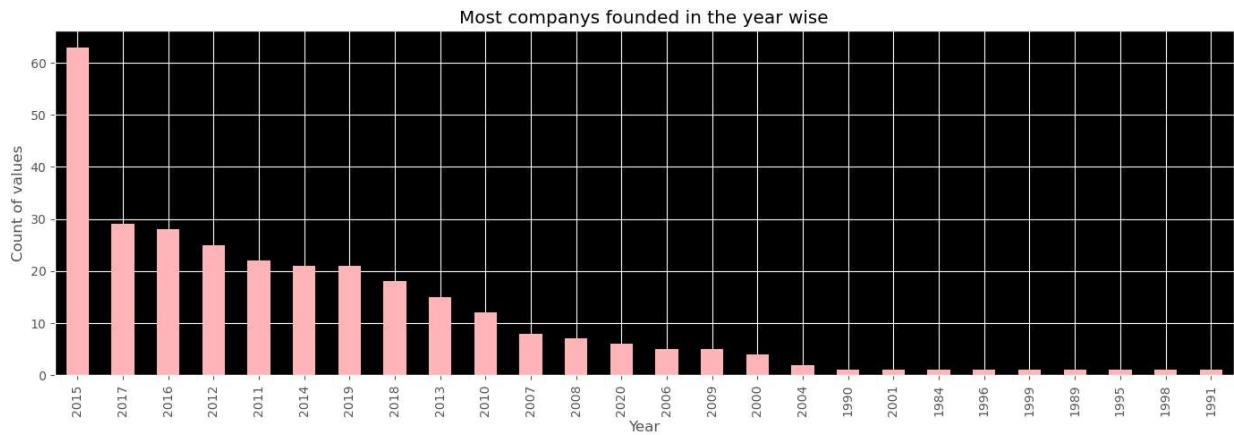
```
In [13]: #Visualize the top 20 founders name in data
plt.rcParams['axes.facecolor']='blue'
ax=data['Founders'].value_counts()[:20]\n.sort_values(ascending=False)\n.plot(kind='bar',title='Visualize the top 20 founders',figsize=(15,5))\nax.set_xlabel("Founders name")\nax.set_ylabel("Count of the values",fontsize=10)\nplt.show()
```



## About the Founder's Bar

- In the data we visualize the founder's name in the data most of the founder data not available
- After that Vijay Shanker sharma have founded Three company's
- Mukesh Ambani,Amit Jain, Anurag Jain

```
In [14]: # find the which year most companys started
plt.rcParams['axes.facecolor']='black'
ax=data['Starting Year'].value_counts()\
.plot(kind='bar',title='Most companys founded in the year wise',figsize=(17,5),color='orange')
ax.set_xlabel("Year")
ax.set_ylabel("Count of values")
plt.show()
```



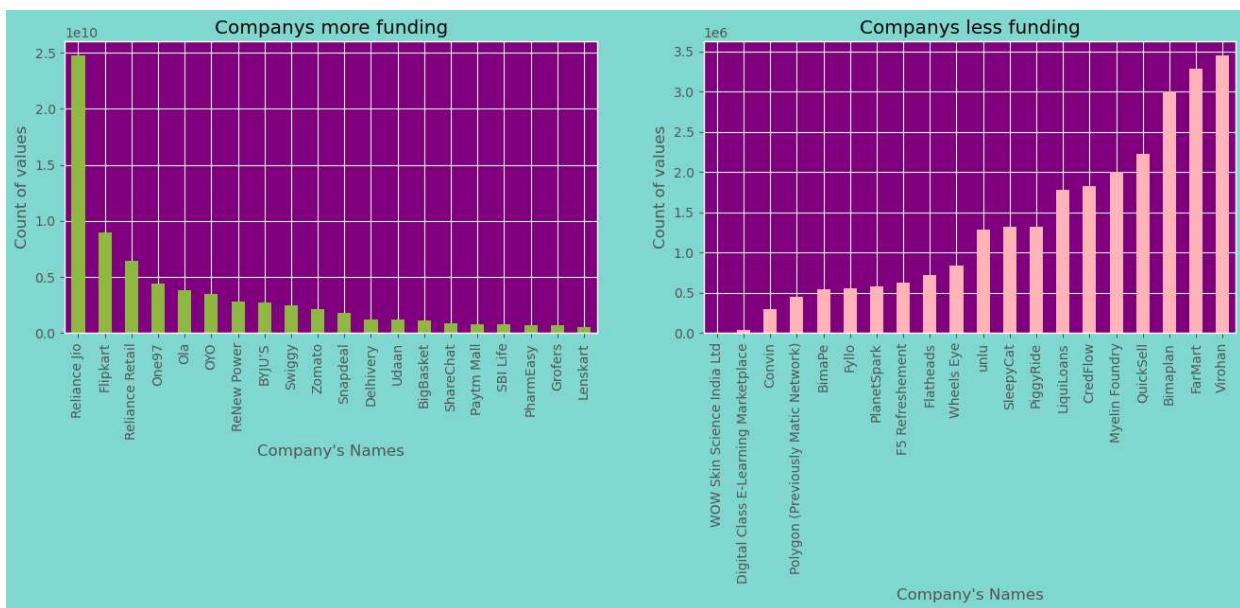
## About the barplot:

- From the above plot we have data from 1991-2020
- In the year 2015 most company's founded.
- 2017 more company founded compare to 2020
- In the year 1991 less company's founded compare to other year's

```
In [15]: data.groupby('Company')['Funding Amount in $'].sum().sort_values()
```

```
Out[15]: Company
WOW Skin Science India Ltd          0
Digital Class E-Learning Marketplace 42000
Convin                               300000
Polygon (Previously Matic Network)  450000
BimaPe                               545000
...
Ola                                  3808672049
One97                                4432652051
Reliance Retail                        6419310306
Flipkart                             9009184737
Reliance Jio                           24767620475
Name: Funding Amount in $, Length: 300, dtype: int64
```

```
In [16]: #Find the which company's have more funding in the data
plt.rcParams['axes.facecolor']='#800080'
plt.rcParams['figure.facecolor']='#81D8D0'
plt.subplots(1,2,figsize=(25,6))
plt.subplot(121)
fig=data.groupby('Company')['Funding Amount in $'].sum()\
.sort_values(ascending=False)[:20]\ 
.plot(kind='bar',title='Companys more funding',figsize=(16,4),color=color[5])
fig.set_xlabel("Company's Names")
fig.set_ylabel("Count of values")
plt.subplot(122)
fig=data.groupby('Company')['Funding Amount in $'].sum()\
.sort_values()[:20]\ 
.plot(kind='bar',title='Companys less funding',figsize=(16,4),color=color[6])
fig.set_xlabel("Company's Names")
fig.set_ylabel("Count of values")
plt.show()
```

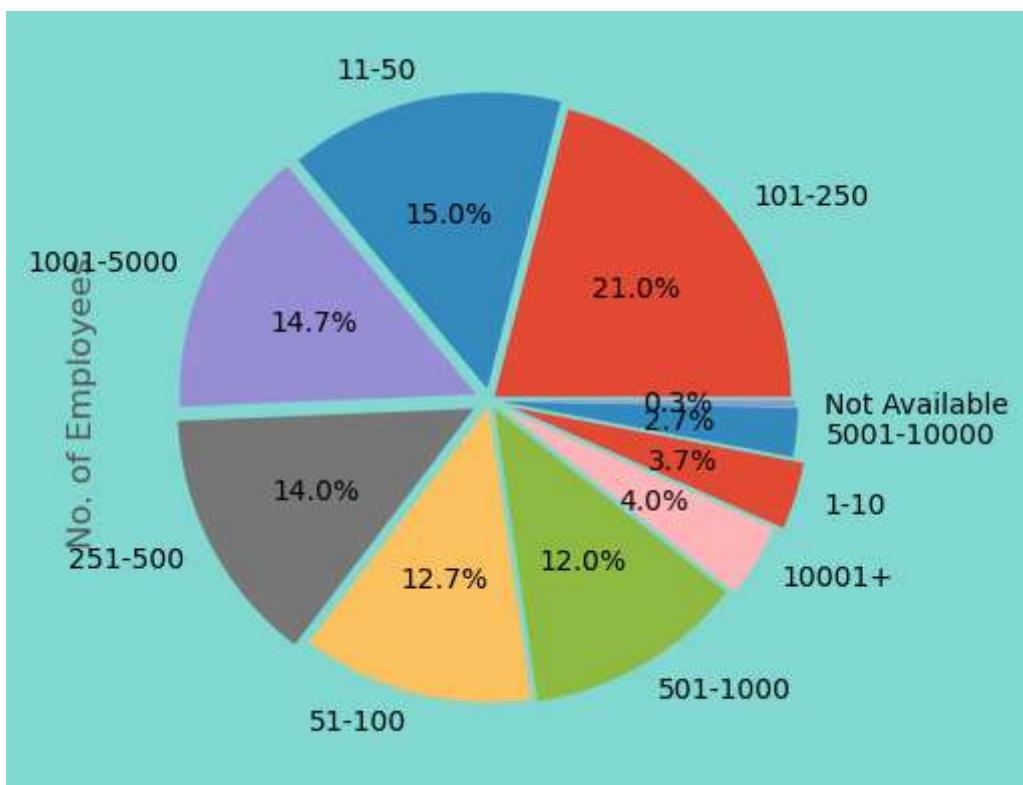


## About the plot:

- We Visualize the Top 20 Companys more funding received
- Reliance jio received more funding in the data, Then Flipkart received less than reliance jio.
- Wow skin science not received funding 2020, after that digital class E-learning received 42000

```
In [17]: #Let's find the how many companies medium and large companies in the dataset
data['No. of Employees'].value_counts()\n.plot(kind='pie',labels=data['No. of Employees'].value_counts().index,autopct='%1.1f%')
```

Out[17]: <AxesSubplot:ylabel='No. of Employees'>



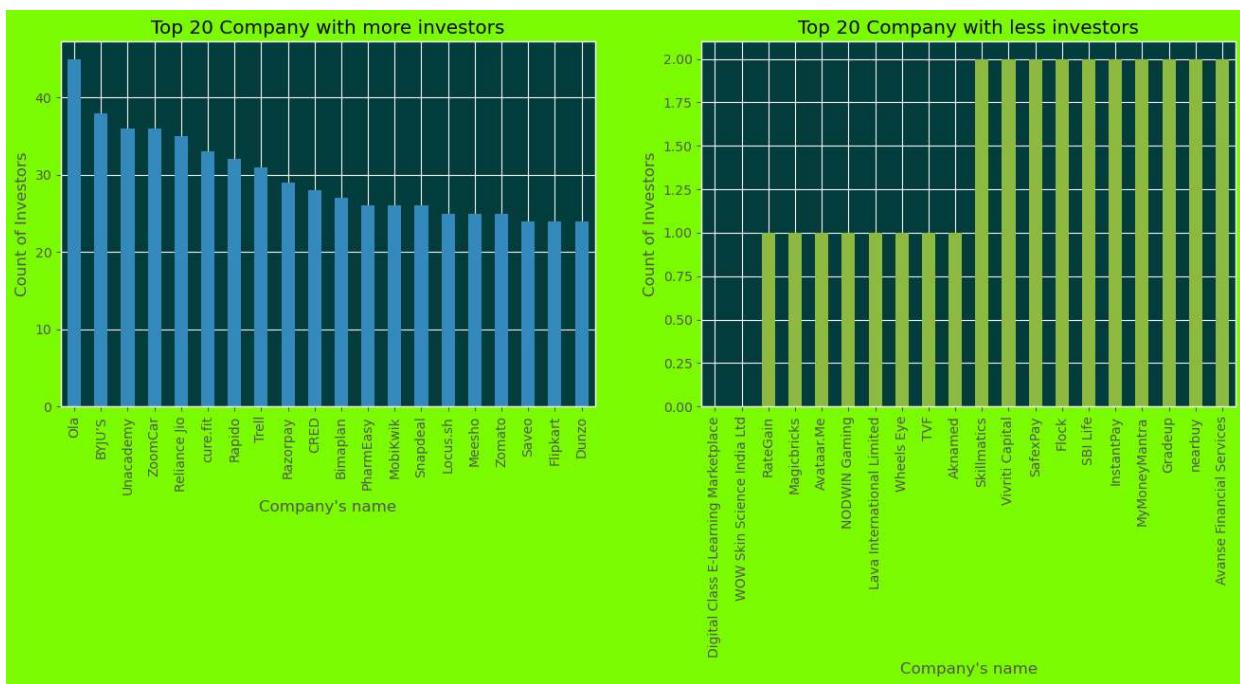
## About Pie Chart :

- From the above chart most company's have employee range 101-250.
- Just 2.7 % company's have employee range 5000-10000
- 15.0% company's have employees range 11-50

```
In [18]: data.groupby('Company')['No. of Investors'].sum().sort_values()
```

```
Out[18]: Company
Digital Class E-Learning Marketplace      0
WOW Skin Science India Ltd                0
RateGain                                    1
Magicbricks                                 1
Avataar.Me                                1
...
Reliance Jio                               35
ZoomCar                                     36
Unacademy                                  36
BYJU'S                                      38
Ola                                         45
Name: No. of Investors, Length: 300, dtype: int64
```

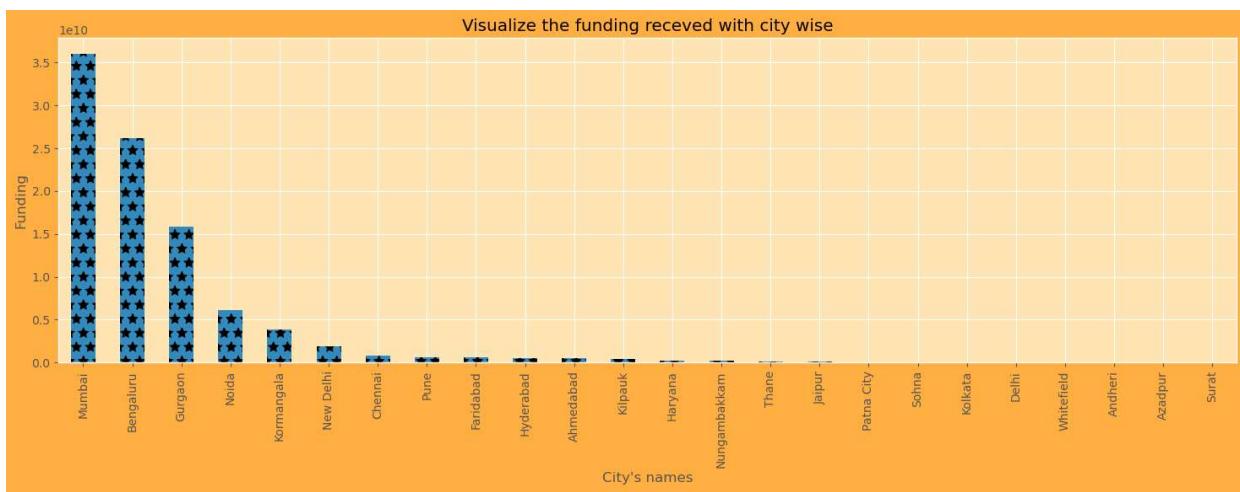
```
In [19]: #Find the investor of the each companys
plt.rcParams['axes.facecolor']='#033E3E'
plt.rcParams['figure.facecolor']='#7CFC00'
plt.subplots(1,2,figsize=(17,5))
plt.subplot(121)
fig1=data.groupby('Company')['No. of Investors'].sum()\n    .sort_values(ascending=False)[:20]\n    .plot(kind='bar',figsize=(16,5),title='Top 20 Company with more investors',color=color)
fig1.set_xlabel("Company's name")
fig1.set_ylabel("Count of Investors")
plt.subplot(122)
fig2=data.groupby('Company')['No. of Investors'].sum()\n    .sort_values(ascending=True)[:20]\n    .plot(kind='bar',figsize=(16,5),title='Top 20 Company with less investors',color=color)
fig2.set_xlabel("Company's name")
fig2.set_ylabel("Count of Investors")
plt.show()
```



## About the barplot:

- In the above chart we visualize top 20 and more and less investors as per 2020.
- From the first bar OLA have more investors compare to other's. After That Byjus,Unacademy etc.
- In the second plot we visualize the bar chart with less investors
- Digital class and Wow skin science no investors as per 2020, Then Rategain and magicbris have 1 investors.

```
In [20]: #find the which city received more funding
plt.rcParams['axes.facecolor']='#FFE5B4'
plt.rcParams['figure.facecolor']='#FFAE42'
city=data.groupby('City')['Funding Amount in $'].sum()\
.sort_values(ascending=False) \
.plot(kind='bar',title='Visualize the funding received with city wise',figsize=(18,5),c
city.set_xlabel("City's names")
city.set_ylabel("Funding")
plt.show()
```

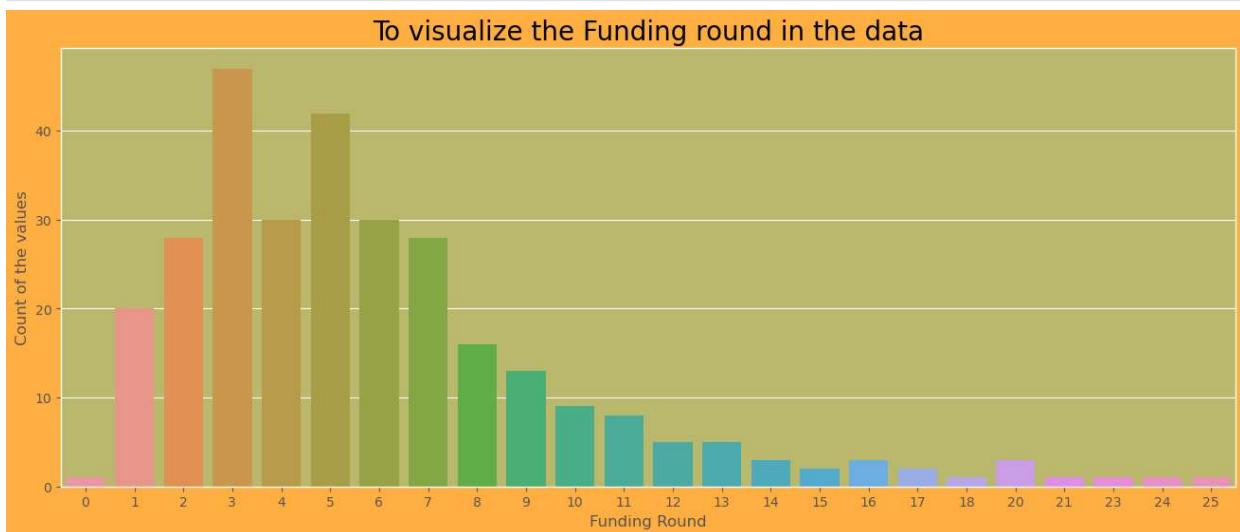


## About the chart :

- From the above chart Mumbai has received more funding compare to other.
- After that bengaluru,gurgaon,noida etc.
- Surat and azadpur not received any funding as per this data

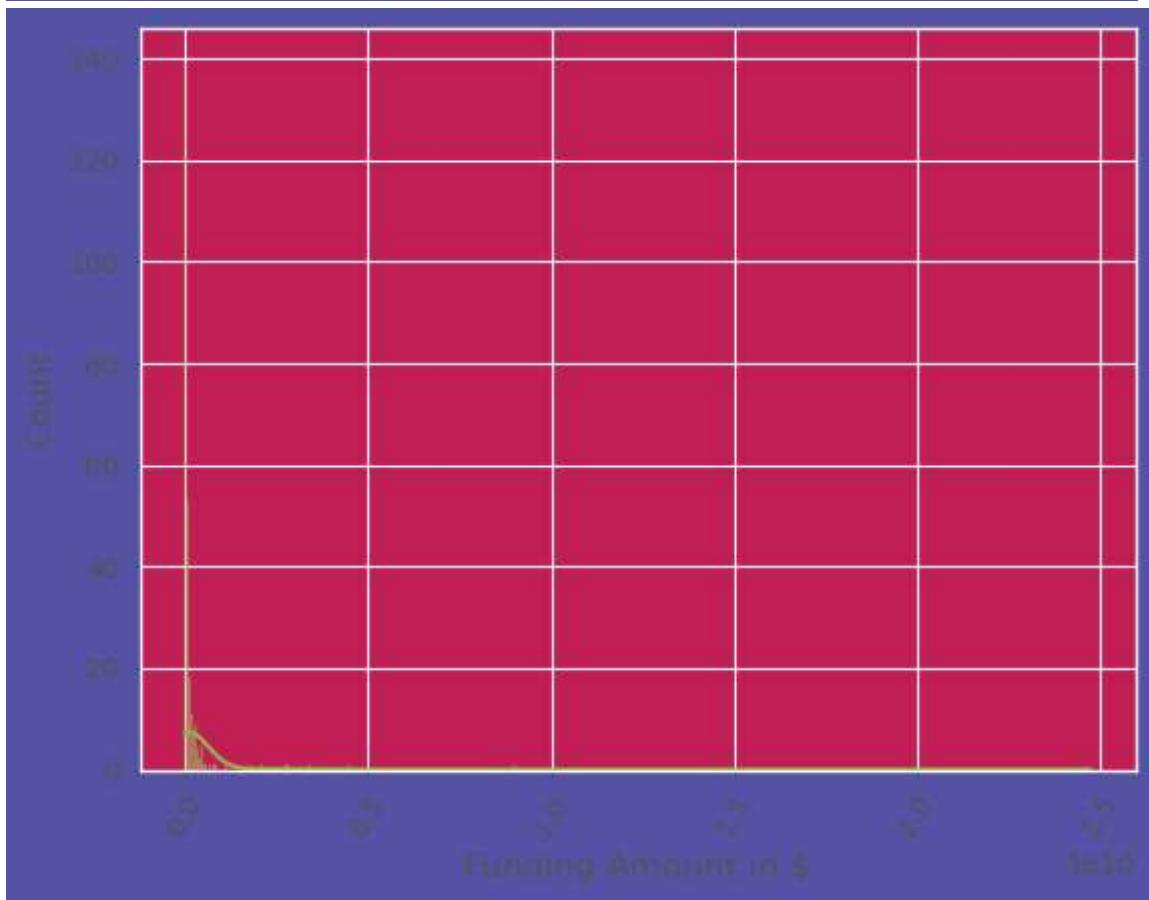
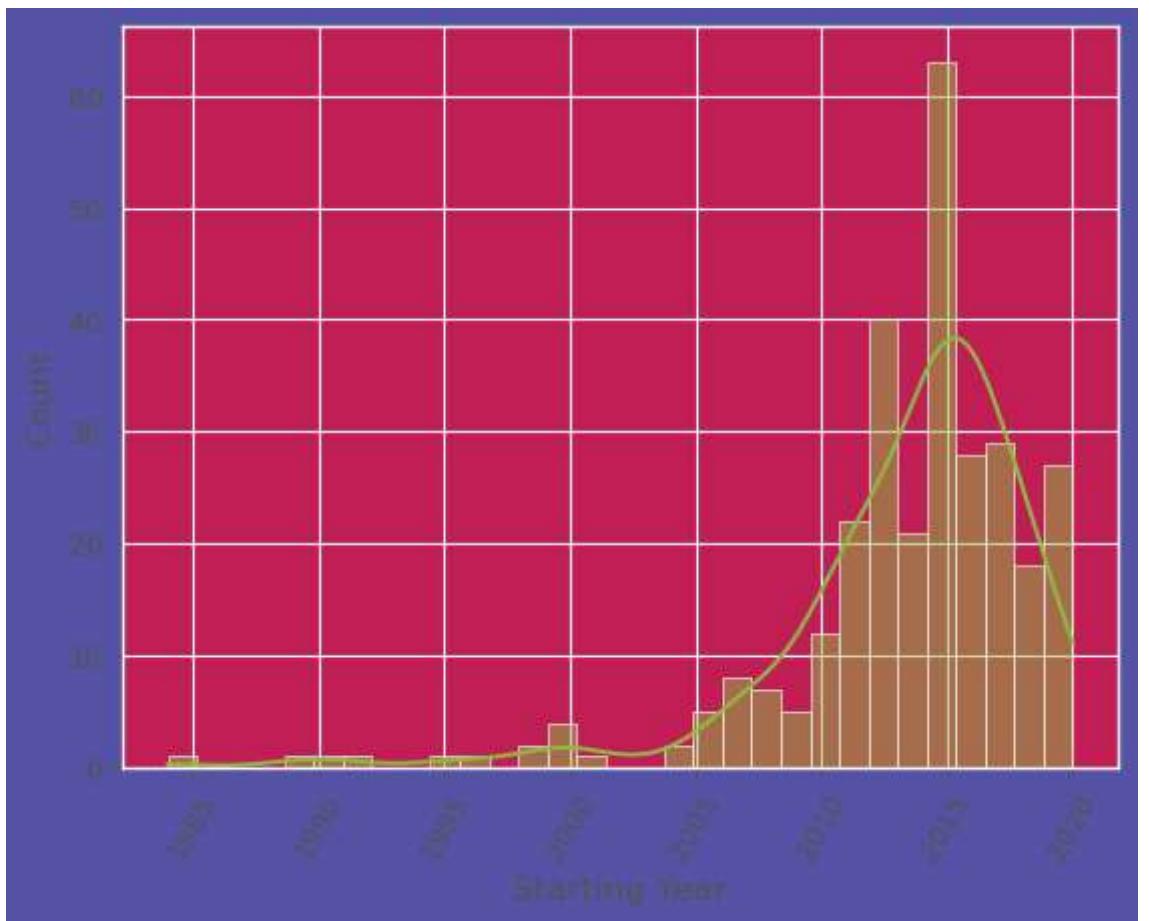
In [21]: *#To visualize the Funding round in the dataset*

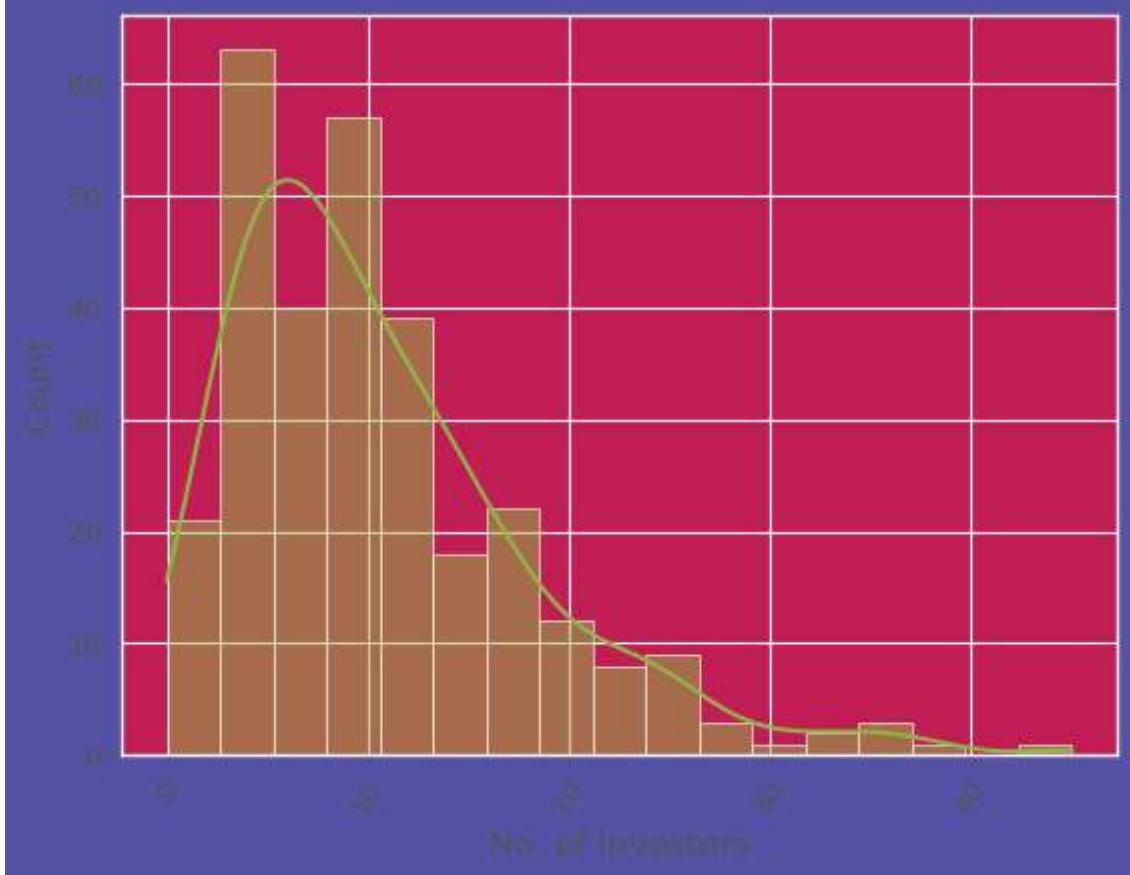
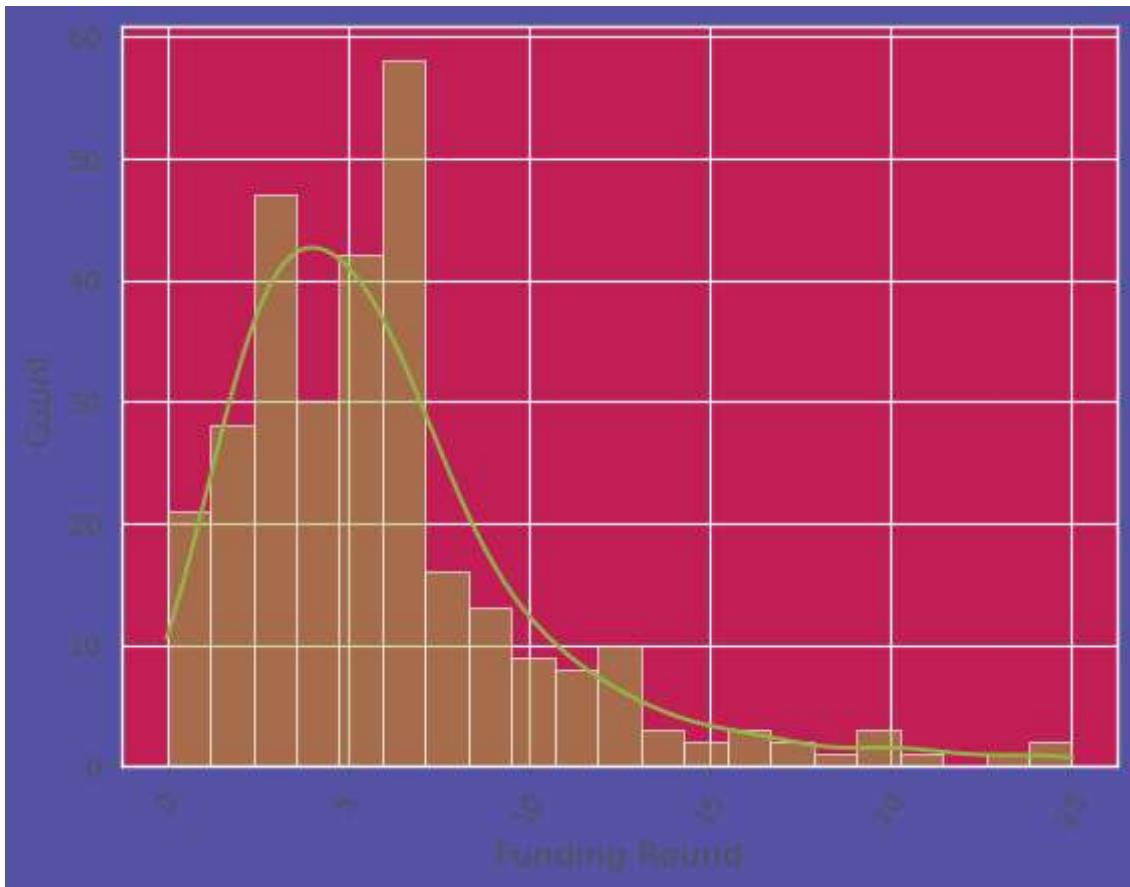
```
plt.rcParams['axes.facecolor']='#BAB86C'
plt.rcParams['figure.facecolor']='#FFAE42'
fig,ax=plt.subplots(figsize=(16,6))
sns.countplot(data=data,x='Funding Round',ax=ax)
plt.title("To visualize the Funding round in the data",fontsize=20)
plt.xlabel("Funding Round")
plt.ylabel("Count of the values")
plt.show()
```



In [22]: *#Select the numerical columns and visualize box plot*

```
plt.rcParams['axes.facecolor']='#C21E56'
plt.rcParams['figure.facecolor']='#5453A6'
for i in data.select_dtypes(include='int'):
    sns.histplot(x=data[i],data=data,color=color[5],kde=True)
    plt.xticks(rotation=60)
    plt.show()
```

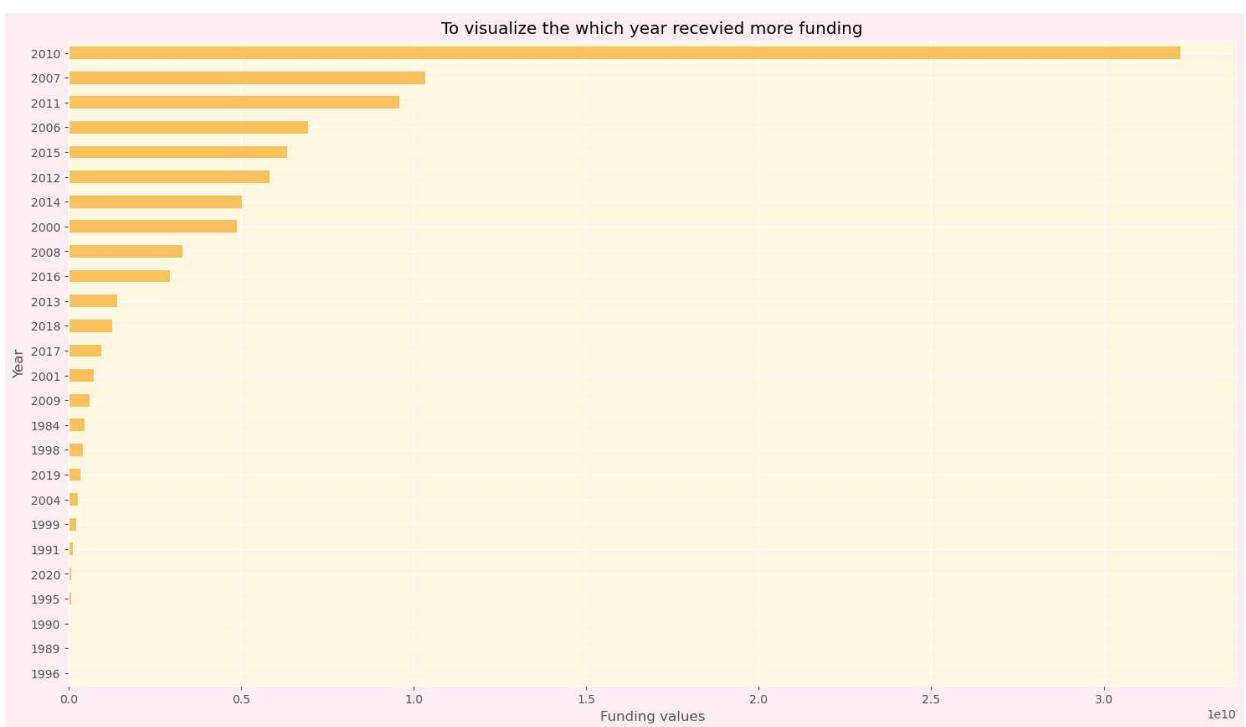




```
In [23]: #In which year more funding received  
plt.rcParams['axes.facecolor']='#FFF9E3'  
plt.rcParams['figure.facecolor']='#FDEEF4'  
ax=data.groupby('Starting Year')['Funding Amount in $'].sum()
```

```
.sort_values(ascending=True)\n.plot(kind='barh',title='To visualize the which year received more funding',figsize=(10,10))\n\nax.set_xlabel("Funding values")\nax.set_ylabel("Year")
```

Out[23]: Text(0, 0.5, 'Year')



## About plot :

- From the above chart we visualize which year more funding we received.
- in the year 2010 more funding received, and next 2017 received funding.
- 1996 year funding not received

```
#Whcih company's recevied for apps funding this is not particuler for apps . The found\napp=data[data['Industries'].str.contains('Apps')]\nax=app.groupby('Company')['Funding Amount in $'].sum()\n\n    .sort_values(ascending=False)\n    .plot(kind='bar',title="To visualize which companys most fund's raising in apps",figsize=(10,10))\n\n    ax.set_xlabel("Company's name")\n    ax.set_ylabel("Funding")\n    plt.show()\n\nprint(f'The total funding recevied from the apps deveploment in companys',app['Funding'])
```



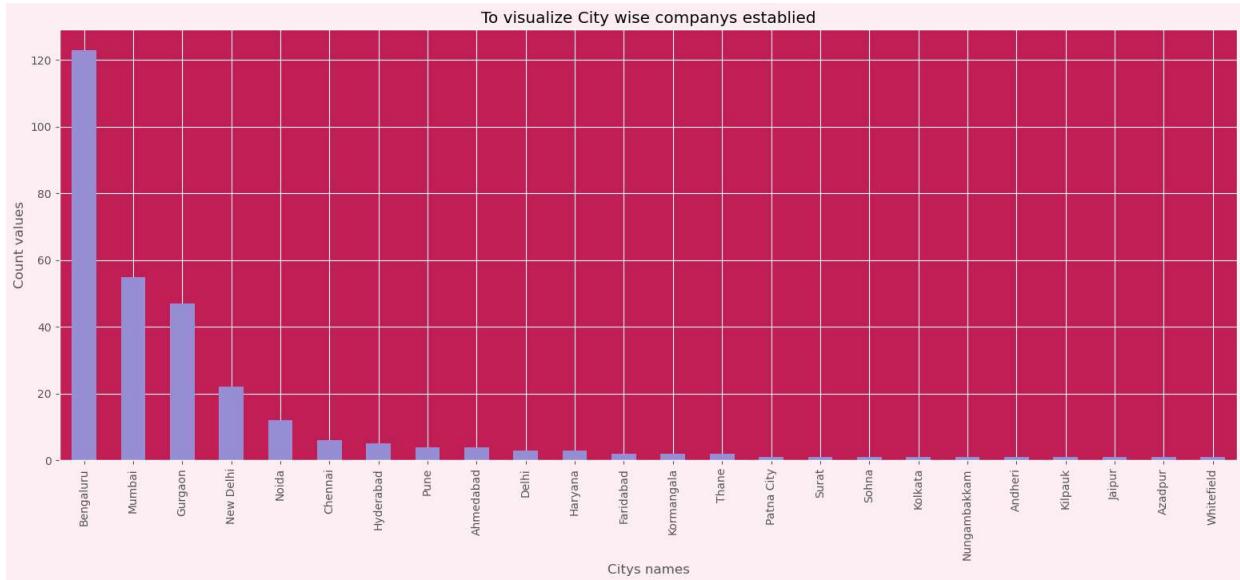
The total funding received from the apps development in companies 35447031698

## About the chart :

- We create a dataset for apps which company's provide the apps information.
- Then we visualize which company received more funding for app
- This graph shows that only apps funding but in reality the funding not for apps.

In [25]:

```
#To visualize the how many companies establish in city wise
plt.rcParams['axes.facecolor'] = '#C2E5E6'
plt.rcParams['figure.facecolor'] = '#FDEEF4'
ax = data.groupby('City')[['Company']].count() \
    .sort_values(ascending=False) \
    .plot(kind='bar', title="To visualize City wise companies established", figsize=(19, 7), color='blue')
ax.set_xlabel('City names')
ax.set_ylabel("Count values")
plt.show()
```



# About the chart

- From the above chart Bengaluru have more company's established.
- After that Mumbai and Gurgaon etc.
- Whitefield have less company's established.

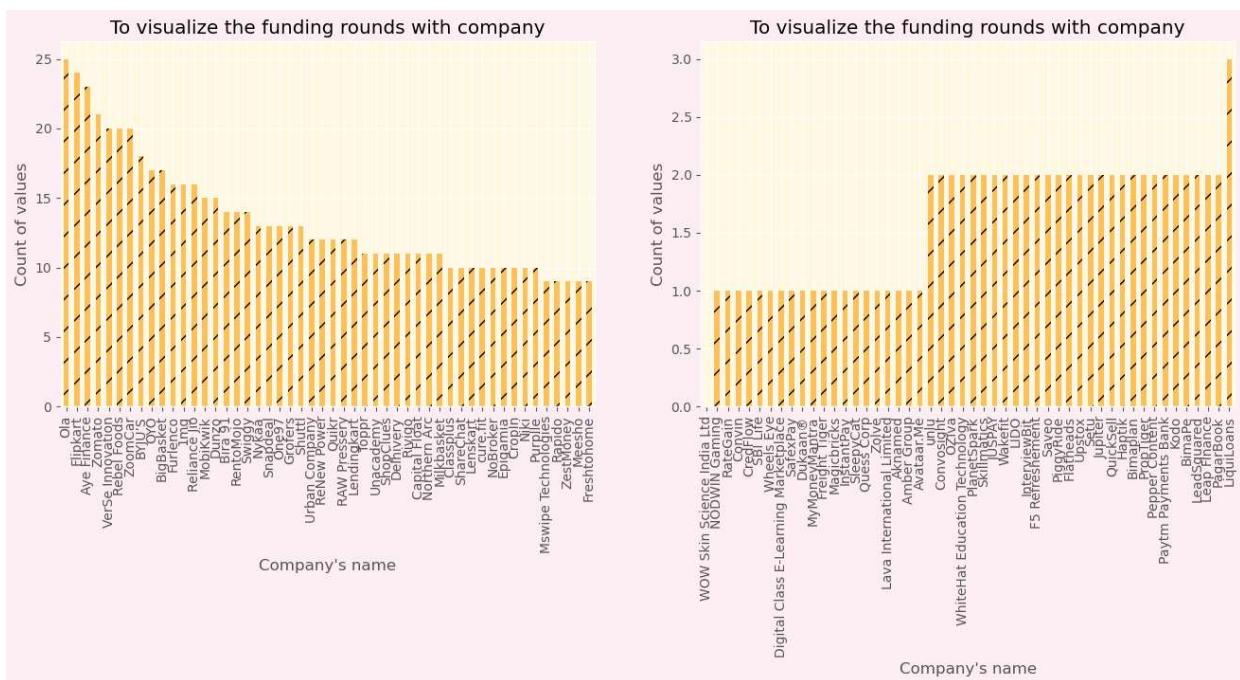
In [26]: `data.head(1)`

Out[26]:

	Company	City	Starting Year	Founders	Industries	Description	No. of Employees	Funding Amount in \$	Funding Round
0	Urban Company	Gurgaon	2014	Abhiraj Singh Bhal, Raghav Chandra, Varun Khaitan	Apps, Home Services, Marketplace, Service Indu...	Urban is a marketplace for independent contrac...	1001-5000	445920356	12

In [27]:

```
plt.rcParams['axes.facecolor']='#FFF9E3'
plt.rcParams['figure.facecolor']='#FDEEF4'
plt.subplots(figsize=(16,5))
plt.subplot(121)
ax=data.groupby('Company')['Funding Round'].sum()\
    .sort_values(ascending=False)[:50]\ 
    .plot(kind='bar',title='To visualize the funding rounds with company',figsize=(16,5),\ 
    ax.set_xlabel("Company's name")
    ax.set_ylabel('Count of values')
plt.subplot(122)
ax1=data.groupby('Company')['Funding Round'].sum()\
    .sort_values(ascending=True)[:50]\ 
    .plot(kind='bar',title='To visualize the funding rounds with company',figsize=(16,5),\ 
    ax1.set_xlabel("Company's name")
    ax1.set_ylabel('Count of values')
plt.show()
```



## About the chart's :

- From the above chart we visualize the company's with funding rounds
  - Ola companys recevied funding with 25 rounds and after that flipkart in the second company's recevied funding with 23 rounds
  - wow skin have no funding rounds in the data.

```
In [28]: data['Industries'][0]
```

```
Out[28]: 'Apps, Home Services, Marketplace, Service Industry'
```

```
In [29]: """ In this code we separates the all industries into different columns.  
we use str split method once we split the data we concat the data into  
main data and fill the None values with no industries.  
And create a separate data frame for industry's and visualize in countplot
```

```
industries=data['Industries'].str.split(', ', expand=True)
industries.fillna("Unkown")
final_df=pd.concat([data,industries],axis=1)
final_df=final_df.fillna("No industries")
```

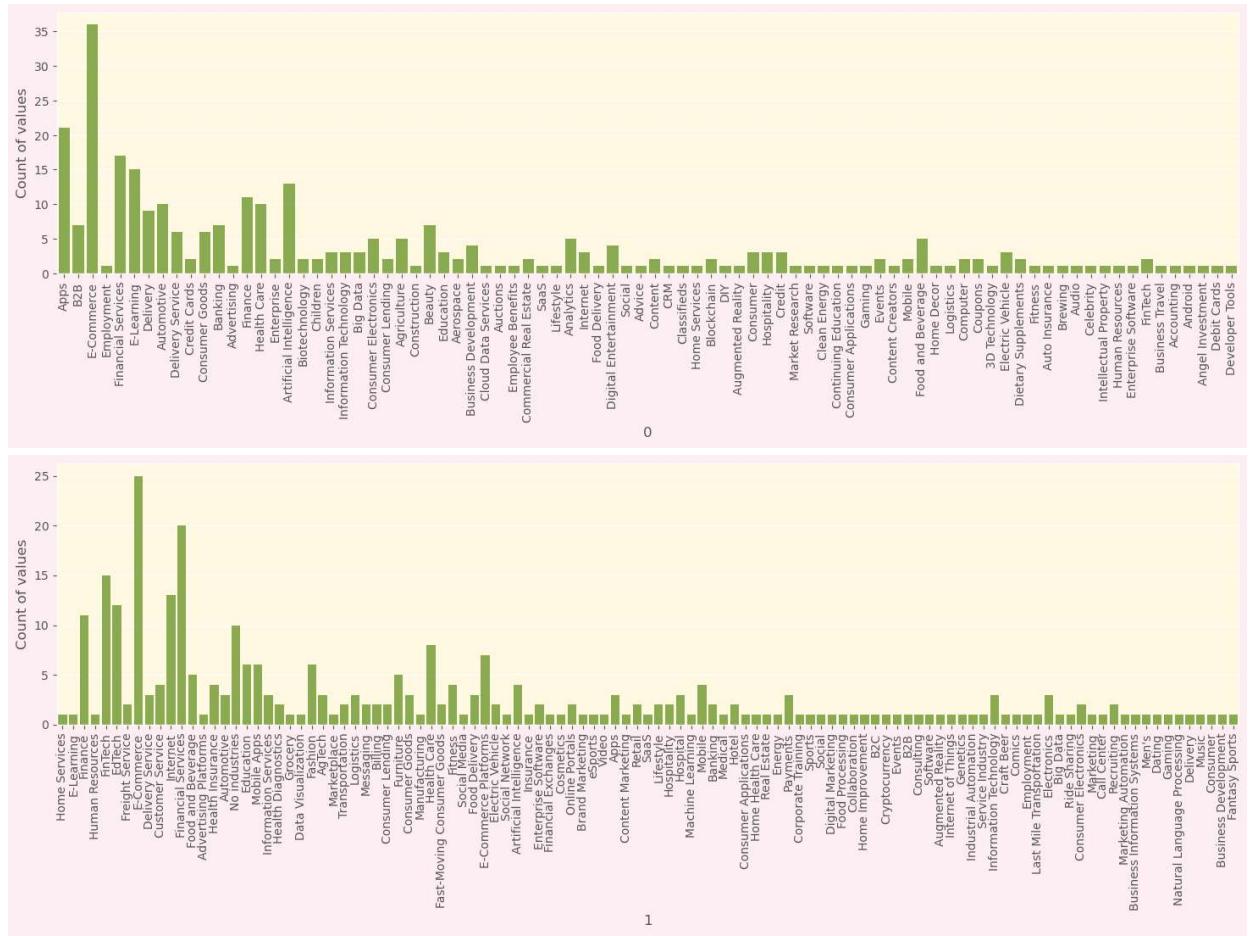
```
In [30]: #Create a dataframe for all industries and  
app=final1_df[[0,1,2,3,4,5,6,7,8,9]]  
app.head()
```

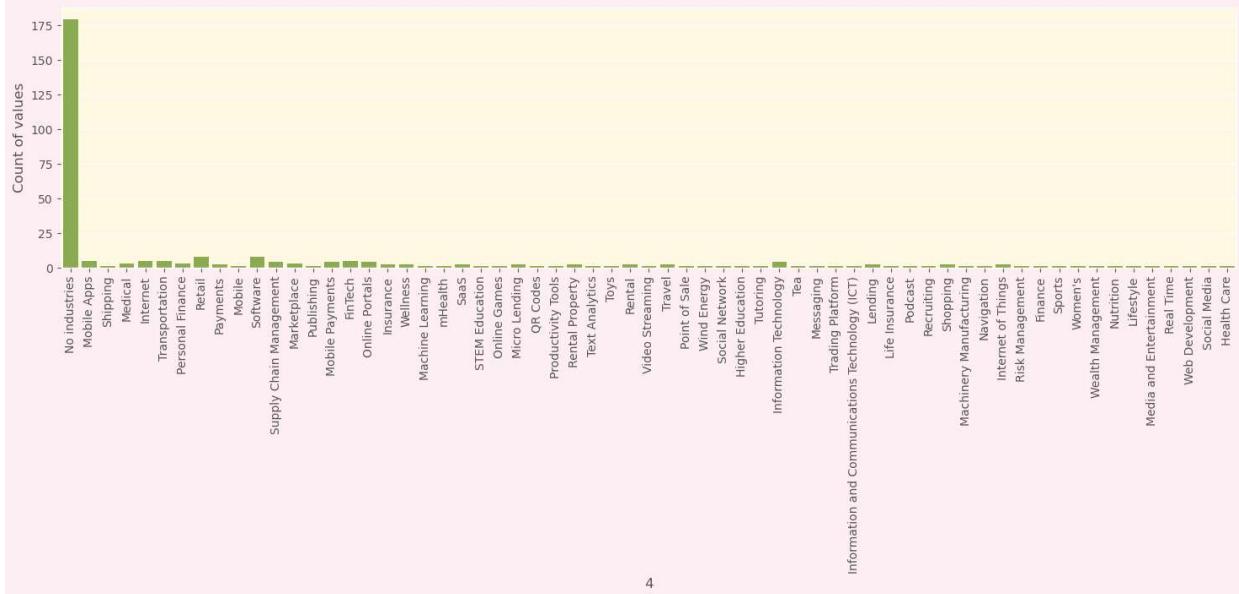
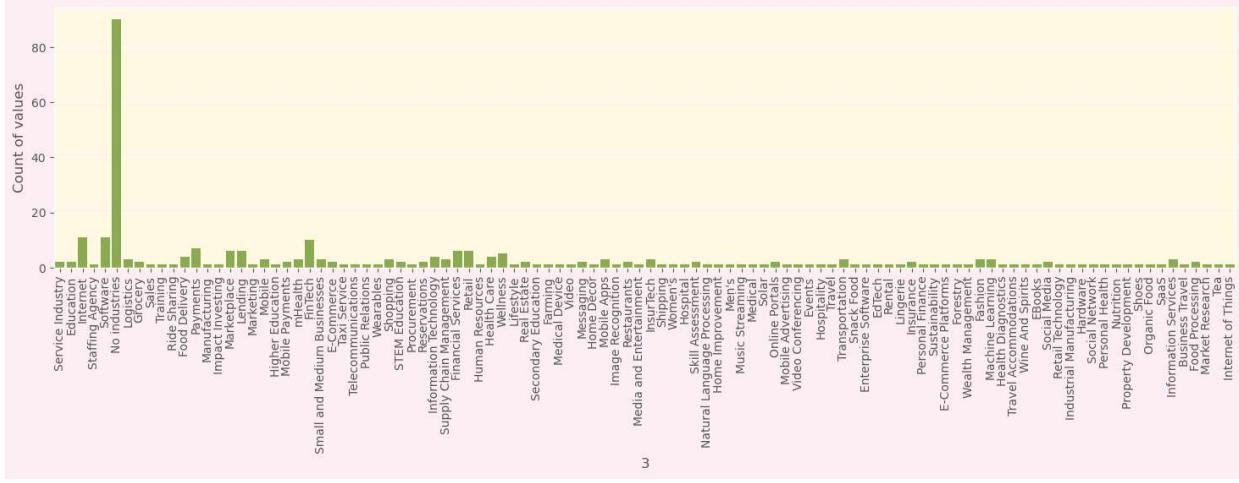
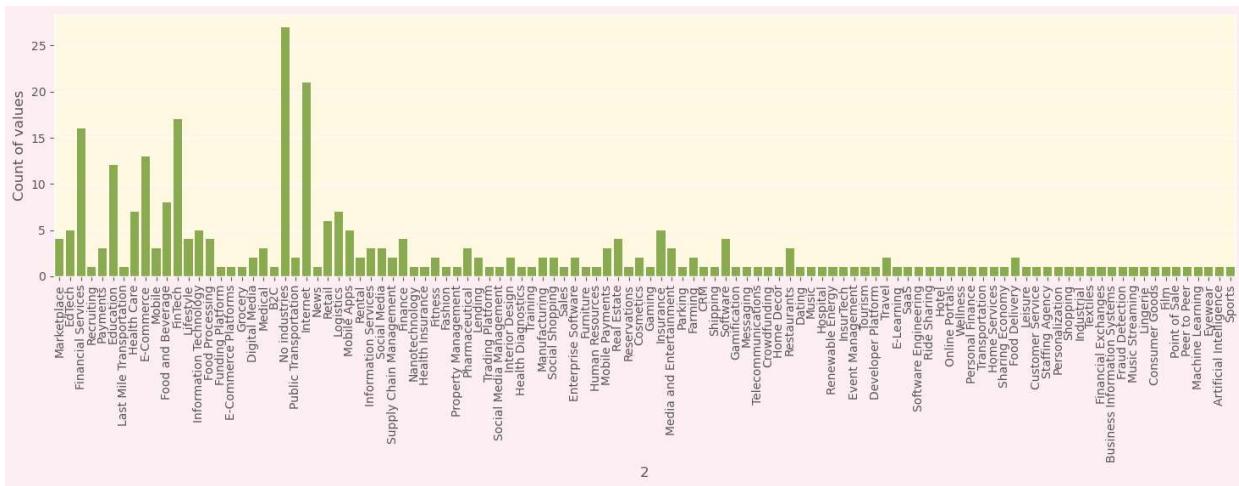
Out[30]:

0	1	2	3	4	5	6	7	8
0	Apps	Home Services	Marketplace	Service Industry	No industries	No industries	No industries	No industries
1	B2B	E-Learning	EdTech	Education	Mobile Apps	SaaS	Software	No industries
2	E-Commerce	Finance	Financial Services	Internet	Mobile Apps	Mobile Payments	No industries	No industries
3	Employment	Human Resources	Recruiting	Staffing Agency	No industries	No industries	No industries	No industries
4	Financial Services	FinTech	Payments	Software	No industries	No industries	No industries	No industries

In [31]: # To visualize the all industries using the countplot

```
for i in app.columns:
    plt.figure(figsize=(18,4))
    sns.countplot(data=app,x=app[i],color=color[5])
    plt.xticks(rotation=90)
    plt.ylabel("Count of values")
    plt.show()
```









9

```
In [32]: final_df.groupby('Company')[[0,1,2,3,4,5,6,7,8,9]].sum()\
    .sort_values(by='Company')\
    .style.background_gradient(cmap='Reds')
```

Out[32]:

	0	1	2	3	
Company					
<b>1mg</b>	Delivery	E-Commerce	Health Care		Internet
<b>Agnikul</b>	Aerospace	Manufacturing	Nanotechnology	No industries	No industries
<b>Airmeet</b>	Events	Social	Software	Video Conferencing	No industries
<b>Aknamed</b>	Health Care	Hospital	Supply Chain Management	No industries	No industries
<b>Amber Group</b>	Consumer Electronics	Electronics	Home Services	Industrial Manufacturing	Machinery Manufacturing
<b>Apna</b>	Employment	Human Resources	Recruiting	Staffing Agency	No industries
<b>Arzooo.com</b>	Consumer Electronics	Electronics	Retail	Retail Technology	Shopping
<b>Ather Energy</b>	Automotive	Electric Vehicle	Manufacturing	No industries	No industries
<b>Avail Finance</b>	Finance	FinTech	Mobile Payments	No industries	No industries
<b>Avanse Financial Services</b>	Education	Finance	Real Estate	Service Industry	No industries
<b>Avataar.Me</b>	3D Technology	Augmented Reality	E-Commerce	Fashion	Mobile Apps
<b>Awign Enterprises</b>	Business Development	E-Commerce	EdTech	Hospitality	Information Technology
<b>Aye Finance</b>	Finance	Financial Services	FinTech	Small and Medium Businesses	No industries
<b>BYJU'S</b>	E-Learning	EdTech	Education	Higher Education	Software
<b>BankBazaar.com</b>	E-Commerce	Finance	FinTech	Insurance	Marketplace
<b>Betterhalf</b>	Artificial Intelligence	Consumer Applications	Dating	No industries	No industries
<b>Bharat Biotech</b>	Biotechnology	No industries	No industries	No industries	No industries
<b>BharatPe</b>	Apps	Financial Services	FinTech	Payments	QR Codes
<b>BigBasket</b>	Delivery	Delivery Service	E-Commerce	Grocery	Internet
<b>Billdesk</b>	Finance	FinTech	Payments	Property Development	Rent
<b>BimaPe</b>	Consumer	FinTech	InsurTech	No industries	No industries

0

1

2

3

**Company**

Applications						
<b>Bimaplan</b>	Financial Services	Insurance	No industries	No industries	No industries	No industries
<b>Bira 91</b>	Brewing	Craft Beer	Food and Beverage	Wine And Spirits	No industries	No industries
<b>Blackbuck</b>	Information Services	Internet	Logistics	Supply Chain Management	Transportation	No industries
<b>BluSmart Mobility</b>	Electric Vehicle	Mobile Apps	Ride Sharing	No industries	No industries	No industries
<b>Blue Tokai Coffee Roasters</b>	Consumer Goods	Delivery	Food and Beverage	Food Processing	No industries	No industries
<b>Bobble AI</b>	Artificial Intelligence	Machine Learning	Messaging	Natural Language Processing	Text Analytics	No industries
<b>Bombay Shaving Company</b>	Consumer Goods	E-Commerce	Lifestyle	Men's	No industries	No industries
<b>BookMyShow</b>	Digital Entertainment	E-Commerce	Event Management	Events	Internet	No industries
<b>Box8</b>	Delivery	E-Commerce	Food and Beverage	Food Delivery	No industries	No industries
<b>CARS24</b>	Artificial Intelligence	Automotive	B2C	E-Commerce	Marketplace	No industries
<b>CRED</b>	Credit Cards	Financial Services	FinTech	Payments	Personal Finance	No industries
<b>Capital Float</b>	B2B	Financial Services	FinTech	Small and Medium Businesses	No industries	No industries
<b>CarDekho</b>	Automotive	E-Commerce	Information Services	Information Technology	Software	No industries
<b>CarTrade</b>	Auctions	Automotive	E-Commerce	Marketplace	No industries	No industries
<b>Cashfree</b>	Finance	Financial Services	FinTech	Mobile Payments	Payments	No industries
<b>Cashify</b>	Consumer	Consumer Electronics	E-Commerce	Marketplace	No industries	No industries
<b>Cashkaro</b>	Coupons	Customer Service	E-Commerce	Internet	Retail	No industries
<b>Cell Propulsion</b>	Automotive	Electric Vehicle	No industries	No industries	No industries	No industries
<b>Chaayos</b>	Food and Beverage	Food Delivery	Restaurants	Tea	No industries	No industries
<b>Chai Point</b>	Food and Beverage	Food Processing	Restaurants	Snack Food	Tea	No industries

	0	1	2	3	
Company					
<b>Chingari</b>	Social	Video	No industries	No industries	No industries
<b>Chqbook</b>	Finance	Financial Services	FinTech	No industries	No industries
<b>Chumbak</b>	E-Commerce	Lifestyle	Shopping	No industries	No industries
<b>CityMall</b>	Consumer Goods	E-Commerce	Lifestyle	No industries	No industries
<b>Classplus</b>	B2B	E-Learning	EdTech	Education	Mobile Apps
<b>Clovia</b>	E-Commerce	Fashion	Lingerie	Retail	Women
<b>CoinDCX</b>	Blockchain	Cryptocurrency	Financial Services	FinTech	Trading Platform
<b>Convin</b>	Analytics	Artificial Intelligence	Sales	Software	No industries
<b>Convosight</b>	SaaS	Social Media	Social Media Management	No industries	No industries
<b>Country Delight</b>	Agriculture	Delivery Service	Food and Beverage	Food Delivery	No industries
<b>Coverfox Insurance</b>	Auto Insurance	Health Insurance	Insurance	InsurTech	Life Insurance
<b>CredFlow</b>	Credit	Financial Services	No industries	No industries	No industries
<b>CropIn</b>	Analytics	Artificial Intelligence	Farming	Forestry	Information and Communication Technology (ICT)
<b>Cuemath</b>	E-Learning	EdTech	Education	STEM Education	No industries
<b>DaMENSCH</b>	E-Commerce	Men's	Textiles	No industries	No industries
<b>DeHaat</b>	Agriculture	AgTech	E-Commerce	Farming	Internet
<b>Delhivery</b>	E-Commerce	Freight Service	Last Mile Transportation	Logistics	Shipping
<b>Digit Insurance</b>	Finance	Financial Services	Insurance	InsurTech	No industries
<b>Digital Class E-Learning Marketplace</b>	B2B	B2C	E-Learning	EdTech	Marketplace
<b>DocsApp</b>	Health Care	Medical	Mobile Apps	Wellness	No industries

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Company					
<b>Dodla Dairy</b>	Consumer Goods	Food and Beverage	Food Processing		Manufacturing
<b>Doubtnut</b>	E-Learning	EdTech	Education	Image Recognition	STEM Education
<b>Droom</b>	Automotive	B2B	E-Commerce	E-Commerce Platforms	Internet
<b>Dukaan®</b>	DIY	No industries	No industries	No industries	No industries
<b>Dunzo</b>	Delivery	Delivery Service	E-Commerce	Mobile	Mobile Apps
<b>EarlySalary</b>	Financial Services	FinTech	Personal Finance	No industries	No industries
<b>Ecom Express</b>	Delivery	E-Commerce	Logistics	No industries	No industries
<b>Embibe</b>	Content Creators	Digital Marketing	EdTech	Education	Tutoring
<b>Epigamia</b>	Consumer	Fast-Moving Consumer Goods	Food and Beverage	Health Care	Nutrition
<b>Exotel</b>	Cloud Data Services	Messaging	Mobile Apps	No industries	No industries
<b>Ezetap</b>	Mobile	Payments	Point of Sale	Software	No industries
<b>F5 Refreshement</b>	Food and Beverage	No industries	No industries	No industries	No industries
<b>FabAlley</b>	E-Commerce	Fashion	Lifestyle	Women's	No industries
<b>Fabhotels</b>	E-Commerce	Hospitality	Hotel	Travel Accommodations	No industries
<b>FamPay</b>	Financial Services	Lifestyle	Payments	No industries	No industries
<b>FarMart</b>	Agriculture	Apps	Farming	Mobile	SaaS
<b>Financepeer</b>	Financial Services	FinTech	Peer to Peer	No industries	No industries
<b>Financial Software &amp; Systems</b>	Debit Cards	Financial Services	FinTech	Information Services	Information Technology
<b>Fisdom</b>	Advice	Apps	Finance	Financial Services	FinTech
<b>Five Star Business Finance</b>	Banking	Finance	Financial Services	Personal Finance	No industries

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Company					
<b>Flatheads</b>	E-Commerce	Fashion	Retail	Shoes	Shopping
<b>Flipkart</b>	E-Commerce	Internet	Retail	Shopping	No industries
<b>Flock</b>	Apps	Collaboration	Developer Platform	Enterprise Software	Messaging
<b>FreeCharge</b>	Coupons	E-Commerce	Internet	Payments	No industries
<b>Freight Tiger</b>	Automotive	Logistics	Transportation	No industries	No industries
<b>FreshMenu</b>	Delivery	Food and Beverage	Food Delivery	Food Processing	No industries
<b>Freshtohome</b>	E-Commerce	E-Commerce Platforms	Food and Beverage	Food Delivery	Online Portals
<b>Furlenco</b>	Consumer	Furniture	Home Decor	Home Improvement	Rent
<b>Fyle</b>	Accounting	Artificial Intelligence	Business Information Systems	Business Travel	Finance
<b>Fyllo</b>	Agriculture	AgTech	Artificial Intelligence	Internet of Things	No industries
<b>Gaana</b>	Apps	Music	Music Streaming	Online Portals	No industries
<b>Get My Parking</b>	Automotive	Internet	Parking	Software	No industries
<b>GimarSoft</b>	Developer Tools	Enterprise Software	Mobile	Software	We Developmen
<b>GlowRoad</b>	E-Commerce	Retail	Social Shopping	No industries	No industries
<b>GoMechanic</b>	Automotive	Customer Service	E-Commerce	Sales	No industries
<b>Goodera</b>	Computer	Events	Software	Sustainability	No industries
<b>Gradeup</b>	Education	Mobile	Online Portals	No industries	No industries
<b>Grofers</b>	Delivery	E-Commerce	E-Commerce Platforms	Grocery	Retai
<b>Groww</b>	Financial Services	FinTech	Funding Platform	Impact Investing	No industries
<b>HalaPlay Technologies</b>	Digital Entertainment	Fantasy Sports	Sports	No industries	No industries

**0****1****2****3****Company**

<b>Happay</b>	Financial Services	FinTech	SaaS	Software	No industries
<b>Haptik</b>	Artificial Intelligence	Customer Service	Machine Learning	Messaging	Real Time
<b>HealthifyMe</b>	Apps	Fitness	Health Care	mHealth	No industries
<b>Healthkart</b>	Dietary Supplements	E-Commerce	Fitness	Health Care	Retail
<b>Hike</b>	Apps	Messaging	Mobile	Online Portals	Social Network
<b>Holisol logistics</b>	Business Development	Logistics	Supply Chain Management	No industries	No industries
<b>HomeLane</b>	Home Decor	Home Improvement	Interior Design	Internet	No industries
<b>Hopscotch</b>	E-Commerce	Internet	Retail	No industries	No industries
<b>Housing.com</b>	Internet	Online Portals	Real Estate	No industries	No industries
<b>HungerBox</b>	B2B	Food and Beverage	Food Delivery	No industries	No industries
<b>IDfy</b>	E-Commerce	FinTech	Fraud Detection	Information Services	Information Technology
<b>INDwealth</b>	Artificial Intelligence	Financial Services	FinTech	Machine Learning	Personal Finance
<b>ITILITE</b>	Business Travel	Information Technology	Internet	No industries	No industries
<b>InCred</b>	Banking	Consumer Lending	Finance	Financial Services	FinTech
<b>InMobi</b>	Advertising	Advertising Platforms	Digital Media	Marketing	Mobile
<b>Indifi Technologies</b>	Credit	Financial Services	FinTech	Lending	No industries
<b>Infra.Market</b>	Construction	E-Commerce	Marketplace	Procurement	No industries
<b>Instamojo</b>	Business Development	E-Commerce	Financial Services	Payments	No industries
<b>InstantPay</b>	E-Commerce	Electronics	Financial Exchanges	Financial Services	Mobile Payments
<b>InterviewBit</b>	E-Learning	Employment	Information Technology	Internet	Recruitment
<b>JUSPAY</b>	FinTech	Internet	Mobile Payments	Payments	No industries

**0****1****2****3****Company**

<b>Company</b>						
<b>Jai Kisan</b>	Agriculture	AgTech	Financial Services	FinTech	No industries	
<b>JioSaavn</b>	Internet	Mobile	Music	Music Streaming	Video Streaming	
<b>Jumbotail</b>	E-Commerce	Food and Beverage	Grocery	Marketplace	Retail	
<b>Jupiter</b>	Banking	Consulting	Financial Services	Wealth Management	No industries	
<b>KIMS Hospitals</b>	Health Care	Hospital	Medical	No industries	No industries	
<b>Kinara Capital</b>	Finance	Financial Services	FinTech	Lending	Micro Lending	
<b>Kissht</b>	Credit	Finance	Financial Services	FinTech	Lending	
<b>Kodo</b>	B2B	Financial Services	FinTech	Small and Medium Businesses	No industries	
<b>Koo App</b>	Apps	Internet	Social Media	Software	No industries	
<b>KreditBee</b>	Financial Services	FinTech	Internet	Lending	No industries	
<b>LEAD School</b>	E-Learning	EdTech	Education	Secondary Education	No industries	
<b>LIDO</b>	E-Learning	EdTech	Education	Software	No industries	
<b>Lava International Limited</b>	Consumer Electronics	Mobile	Telecommunications	No industries	No industries	
<b>LeadSquared</b>	CRM	SaaS	Software	No industries	No industries	
<b>Leap Finance</b>	Credit Cards	Education	Financial Services	FinTech	Lending	
<b>Lendingkart</b>	Finance	Financial Services	FinTech	Lending	Micro Lending	
<b>Lenskart</b>	Delivery	E-Commerce	Eyewear	Fashion	Health Care	
<b>LetsTransport</b>	Logistics	Transportation	Travel	No industries	No industries	
<b>Licious</b>	Delivery Service	E-Commerce	Food and Beverage	Food Delivery	No industries	
<b>LimeRoad</b>	E-Commerce	Fashion	Internet	Shopping	No industries	

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Company					
<b>LiquiLoans</b>	Financial Services	No industries	No industries	No industries	No industries
<b>Livspace</b>	E-Commerce	Furniture	Interior Design	No industries	No industries
<b>Loadshare</b>	Delivery Service	Industrial Automation	Logistics	Software	Supply Chain Management
<b>LocoNav</b>	Computer	Software	Software Engineering	No industries	No industries
<b>Locus.sh</b>	Big Data	Data Visualization	Logistics	Software	No industries
<b>MCaffeine</b>	Beauty	Consumer	Consumer Goods	E-Commerce	Lifestyle
<b>Magicbricks</b>	Commercial Real Estate	Online Portals	Real Estate	No industries	No industries
<b>Magicpin</b>	E-Commerce	E-Commerce Platforms	Internet	Retail	No industries
<b>Mamaearth</b>	E-Commerce	Health Care	Retail	Wellness	No industries
<b>Masai School</b>	E-Learning	Education	Training	No industries	No industries
<b>MedGenome</b>	Biotechnology	Genetics	Health Care	Health Diagnostics	Medical Devices
<b>MedPlus</b>	E-Commerce	Health Care	Pharmaceutical	Wellness	No industries
<b>MediBuddy</b>	Health Care	Health Insurance	Medical	mHealth	No industries
<b>Medlife</b>	Information Technology	Retail	No industries	No industries	No industries
<b>Meesho</b>	E-Commerce	E-Commerce Platforms	Mobile Apps	Retail	Social Media
<b>Miko</b>	Artificial Intelligence	Consumer Electronics	EdTech	Hardware	Internet of Things
<b>Milkbasket</b>	Delivery Service	E-Commerce	Food and Beverage	Internet	No industries
<b>MobiKwik</b>	Consumer Lending	Financial Services	FinTech	Lending	Mobile Payments
<b>Mswipe Technologies</b>	Financial Services	Payments	No industries	No industries	No industries
<b>Mu Sigma</b>	Analytics	Business Information Systems	Information Services	Information Technology	Software

	0	1	2	3	
Company					
<b>MyGate</b>	Apps	Information Services	Information Technology	Mobile Apps	No industries
<b>MyGlamm</b>	Beauty	Marketplace	Mobile Apps	No industries	No industries
<b>MyMoneyMantra</b>	Consumer Lending	Finance	Financial Services	FinTech	Insurance
<b>Myelin Foundry</b>	Artificial Intelligence	Health Care	Industrial	Information Services	Information Technology
<b>NODWIN Gaming</b>	Events	Gaming	Internet	Social Media	Sports
<b>Neogrowth</b>	Business Development	Finance	Financial Services	Market Research	No industries
<b>Netmeds</b>	E-Commerce	Health Care	Pharmaceutical	No industries	No industries
<b>NiYO Solutions</b>	Finance	Financial Services	FinTech	No industries	No industries
<b>Niki</b>	Android	Natural Language Processing	No industries	No industries	No industries
<b>NoBroker</b>	Commercial Real Estate	Mobile Apps	Property Management	Real Estate	Software
<b>Northern Arc</b>	Enterprise	Finance	Financial Services	No industries	No industries
<b>Nykaa</b>	Beauty	E-Commerce	Fashion	Lifestyle	Online Portals
<b>OPEN</b>	Banking	Billing	Finance	Financial Services	FinTech
<b>OYO</b>	Hospitality	Hotel	Leisure	Reservations	Travel
<b>OZiva</b>	Dietary Supplements	Fitness	Health Care	Nutrition	Wellness
<b>OfBusiness</b>	Financial Services	FinTech	Lending	No industries	No industries
<b>OkCredit</b>	Finance	Financial Exchanges	Financial Services	FinTech	Personal Finance
<b>Ola</b>	Apps	Internet	Mobile	Ride Sharing	Transportation
<b>One97</b>	Finance	FinTech	Internet	Mobile Advertising	Mobile Payments
<b>Oye Rickshaw</b>	Electric Vehicle	Last Mile Transportation	Public Transportation	Transportation	No industries

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Company					
<b>PagarBook</b>	Apps	Enterprise Software	Human Resources	Mobile Apps	SaaS
<b>Pariksha</b>	E-Learning	EdTech	Education	Skill Assessment	No industries
<b>Paytm</b>	E-Commerce	Finance	Financial Services	Internet	Mobile Apps
<b>Paytm Mall</b>	E-Commerce	E-Commerce Platforms	Internet	Marketplace	Retail
<b>Paytm Payments Bank</b>	Banking	FinTech	Mobile Payments	No industries	No industries
<b>Pee Safe</b>	Consumer Goods	Fast-Moving Consumer Goods	Fitness	Health Care	Wellness
<b>Pepper Content</b>	Content	Content Marketing	Media and Entertainment	No industries	No industries
<b>Pepperfry</b>	E-Commerce	Furniture	Marketplace	Retail	No industries
<b>Perpulse</b>	Apps	Billing	Enterprise Software	Mobile Payments	Point of Sale
<b>PhableCare</b>	Health Care	Internet	Mobile Apps	Personal Health	No industries
<b>PharmEasy</b>	Health Care	Health Diagnostics	Pharmaceutical	Wellness	No industries
<b>PiggyRide</b>	Children	Education	Information Services	Information Technology	Transportation
<b>Pine Labs</b>	Financial Services	FinTech	Information Technology	Payments	No industries
<b>Pitstop</b>	Automotive	Service Industry	No industries	No industries	No industries
<b>PlanetSpark</b>	E-Learning	EdTech	Education	No industries	No industries
<b>Play Shifu</b>	Augmented Reality	Education	Media and Entertainment	STEM Education	Toys
<b>Plum</b>	Employee Benefits	Health Care	Health Insurance	Human Resources	Insurance
<b>Polygon (Previously Matic Network)</b>	Blockchain	No industries	No industries	No industries	No industries
<b>Portea Medical</b>	Health Care	Home Health Care	Hospital	Medical	No industries
<b>Porter</b>	E-Commerce	Internet	Logistics	Supply Chain Management	No industries

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Company					
<b>Practo</b>	Health Care	Health Diagnostics		Medical	mHealth
<b>Pratilipi</b>	Audio	Comics	Digital Media	EBooks	Podcasts
<b>Pristyn Care</b>	Health Care	Hospital	Internet	No industries	No industries
<b>Progcap</b>	Enterprise	Finance	Financial Services	FinTech	Supply Chain Management
<b>PropTiger</b>	Intellectual Property	Marketing	Real Estate	No industries	No industries
<b>Purplle</b>	Beauty	Cosmetics	E-Commerce	Mobile Apps	Retail
<b>Quess Corp</b>	Information Technology	Recruiting	No industries	No industries	No industries
<b>QuickSell</b>	Software	No industries	No industries	No industries	No industries
<b>Quikr</b>	Classifieds	E-Commerce	Internet	Marketplace	Rental Properties
<b>Quizizz</b>	E-Learning	Education	Gamification	Skill Assessment	Software
<b>RAW Pressery</b>	Delivery	Food and Beverage	Food Processing	Organic Food	No industries
<b>Rapido</b>	Information Services	Mobile Apps	Public Transportation	Taxi Service	Transportation
<b>RateGain</b>	Hospitality	Information Technology	Travel	No industries	No industries
<b>Razorpay</b>	Financial Services	FinTech	Payments	Software	No industries
<b>ReNew Power</b>	Clean Energy	Energy	Renewable Energy	Solar	Wind Energy
<b>Rebel Foods</b>	E-Commerce	Food Delivery	Food Processing	No industries	No industries
<b>Reliance Jio</b>	Apps	Information Services	Internet	Telecommunications	No industries
<b>Reliance Retail</b>	Consumer Goods	Grocery	Retail	No industries	No industries
<b>RentoMojo</b>	E-Commerce	Furniture	Internet	Rental	No industries
<b>Revv</b>	Apps	Automotive	Rental	No industries	No industries
<b>Rivigo</b>	Automotive	Freight Service	Logistics	Shipping	Software

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<b>SBI Life</b>	Financial Services	Health Care	Insurance	No industries	No industries
<b>SUGAR Cosmetics</b>	Beauty	Brand Marketing	Cosmetics	Internet	Online Portfolios
<b>SafexPay</b>	FinTech	Payments	No industries	No industries	No industries
<b>Saveo</b>	Fitness	Health Care	Wellness	No industries	No industries
<b>Scripbox</b>	Angel Investment	Finance	Financial Services	FinTech	Wealth Management
<b>Setu</b>	Financial Services	No industries	No industries	No industries	No industries
<b>Shadowfax</b>	Delivery Service	E-Commerce	Internet	Logistics	Supply Chain Management
<b>ShareChat</b>	Internet	Mobile Apps	Social Media	Social Network	No industries
<b>Shiprocket</b>	E-Commerce	Logistics	Shipping	Supply Chain Management	No industries
<b>Shipsy</b>	Big Data	Internet of Things	Logistics	Machine Learning	Software
<b>Shop101</b>	Apps	Consumer Goods	E-Commerce	Internet	Online Portfolios
<b>ShopClues</b>	E-Commerce	Internet	Marketplace	Shopping	No industries
<b>ShopX</b>	B2B	E-Commerce	Internet	No industries	No industries
<b>Shuttl</b>	Apps	Mobile	Software	Transportation	No industries
<b>Signzy</b>	Artificial Intelligence	Finance	Financial Services	FinTech	Risk Management
<b>Simpl</b>	E-Commerce	Financial Services	Lending	Payments	No industries
<b>Skillmatics</b>	Children	Education	No industries	No industries	No industries
<b>Skyroot Aerospace</b>	Aerospace	Transportation	No industries	No industries	No industries
<b>SleepyCat</b>	E-Commerce	No industries	No industries	No industries	No industries
<b>Snapdeal</b>	Consumer Electronics	E-Commerce	Internet	Marketplace	Retail

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Company					
<b>Spinny</b>	E-Commerce	E-Commerce Platforms		Internet	Retail
<b>Square Yards</b>	Market Research	Real Estate	No industries	No industries	No industries
<b>Stanza Living</b>	Home Services	Hospitality	Information Technology	Real Estate	Rental Property
<b>Star Health and Allied Insurance</b>	Health Care	Health Insurance	Insurance	No industries	No industries
<b>Stashfin</b>	Apps	Banking	Finance	Financial Services	FinTech
<b>Swiggy</b>	Delivery Service	E-Commerce Platforms	Restaurants	No industries	No industries
<b>Synapsica</b>	Artificial Intelligence	Health Care	Health Diagnostics	Information Technology	Machine Learning
<b>TVF</b>	Digital Entertainment	E-Commerce	Film	Internet	Media and Entertainment
<b>Teachmint</b>	E-Learning	EdTech	Education	No industries	No industries
<b>Testbook.com</b>	E-Learning	EdTech	Education	No industries	No industries
<b>The Man Company</b>	Beauty	Consumer Goods	No industries	No industries	No industries
<b>Toppr</b>	E-Learning	EdTech	Education	No industries	No industries
<b>Treebo Hotels</b>	Hospitality	Hotel	Internet	No industries	No industries
<b>Trell</b>	Lifestyle	Social Network	Social Shopping	Video	No industries
<b>True Balance</b>	Apps	Financial Services	FinTech	Insurance	Mobile Payments
<b>Trulymadly.com</b>	Apps	Dating	Internet	No industries	No industries
<b>Turtlemint</b>	Financial Services	Health Insurance	Insurance	InsurTech	No industries
<b>Udaan</b>	B2B	Business Development	E-Commerce	Internet	Retail
<b>Unacademy</b>	E-Learning	EdTech	Education	Training	No industries
<b>Unbxd</b>	Artificial Intelligence	Big Data	E-Commerce	Machine Learning	Navigational

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Company					
<b>UpGrad</b>	E-Learning	EdTech	Education	No industries	No industries
<b>Upstox</b>	Financial Services	FinTech	Trading Platform	No industries	No industries
<b>Urban Company</b>	Apps	Home Services	Marketplace	Service Industry	No industries
<b>Urban Ladder</b>	E-Commerce	E-Commerce Platforms	Furniture	Home Decor	Internet
<b>UrbanPiper</b>	Food and Beverage	Information Services	Information Technology	Software	No industries
<b>VerSe Innovation</b>	Content	Internet	Social Media	No industries	No industries
<b>Vernacular.ai</b>	Artificial Intelligence	Call Center	Customer Service	Internet	Internet of Things
<b>Virohan</b>	Continuing Education	Corporate Training	EdTech	Health Care	Higher Education
<b>Vivriti Capital</b>	Analytics	Banking	Crowdfunding	Financial Services	FinTech
<b>Vymo</b>	Analytics	Apps	CRM	Mobile	Productivity Tools
<b>WOW Skin Science India Ltd</b>	Beauty	Consumer Goods	Cosmetics	Fashion	No industries
<b>Wakefit</b>	E-Commerce	Furniture	Manufacturing	Retail	No industries
<b>WebEngage</b>	Enterprise Software	Marketing Automation	Personalization	SaaS	No industries
<b>Wheels Eye</b>	Information Services	Information Technology	No industries	No industries	No industries
<b>WhiteHat Education Technology</b>	Education	No industries	No industries	No industries	No industries
<b>WinZO</b>	Digital Entertainment	eSports	Gaming	Media and Entertainment	Online Games
<b>WorkIndia</b>	Human Resources	Recruiting	Staffing Agency	No industries	No industries
<b>Wow! Momo</b>	Food and Beverage	Food Delivery	Food Processing	No industries	No industries
<b>Wysa</b>	Artificial Intelligence	Fitness	Health Care	Medical Device	mHealth
<b>XYXX Apparels</b>	Gaming	Sports	No industries	No industries	No industries

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Company						
Xpressbees	Delivery Service	E-Commerce	Internet	Logistics	Supply Chain Management	Manufacturing
Yellow Messenger	Artificial Intelligence	Customer Service	Enterprise Software	Messaging	Software	Cloud Computing
YourStory	Information Technology	Internet	News	Public Relations	Publishing	Content Creation
Yulu	Electric Vehicle	Ride Sharing	Sharing Economy	Transportation	No industries	Automotive
ZestMoney	Big Data	Consumer Lending	Financial Services	FinTech	No industries	Finance
Zivame.com	E-Commerce	Fashion	Internet	Lingerie	No industries	Apparel
Zolve	Banking	Financial Services	No industries	No industries	No industries	No industries
Zomato	Food Delivery	Mobile Apps	Reservations	Restaurants	No industries	No industries
ZoomCar	Automotive	E-Commerce	Rental	Reservations	Transportation	Automotive
boAt	Consumer Electronics	Fashion	Lifestyle	Wearables	No industries	No industries
cure.fit	Apps	Fitness	Health Care	Wellness	No industries	No industries
ixigo	Mobile	Mobile Apps	Tourism	Travel	No industries	No industries
mfine	Apps	Artificial Intelligence	Health Care	Hospital	Medicine	Healthcare
nearbuy	Apps	E-Commerce	Internet	Restaurants	Travel	Travel
slice	Banking	Financial Services	FinTech	Lending	Payments	Finance
smallcase	Financial Services	No industries	No industries	No industries	No industries	No industries
unlu	Celebrity	Internet	Media and Entertainment	Social Media	No industries	No industries

## Wordcloud generator

- We visualize the words in industries and Description
- We use some background colors

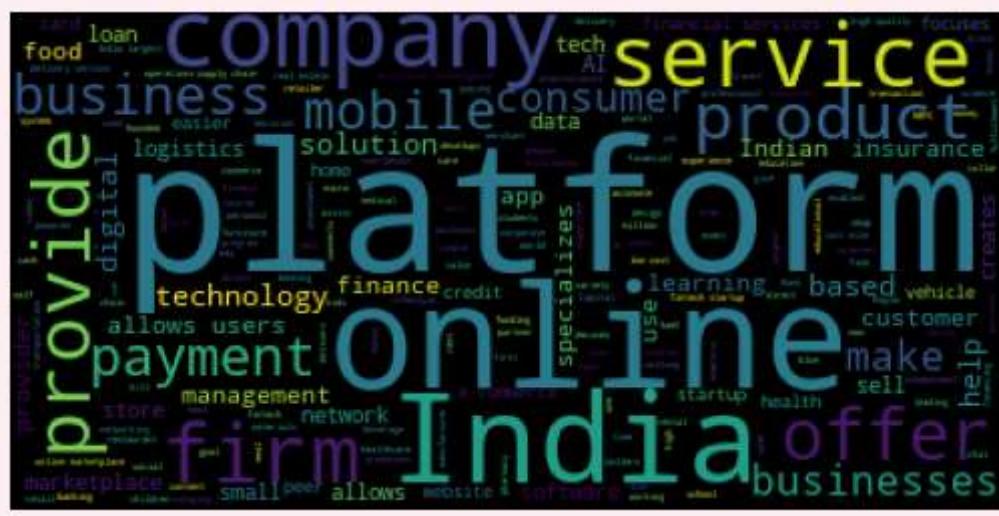
In [33]: #We import the wordcloud from the

```
from wordcloud import WordCloud
text3 = ' '.join(finall_df['Industries'])
wordcloud2 = WordCloud(mode='RGB',background_color='red').generate(text3)
# Generate plot
plt.imshow(wordcloud2)
plt.axis("off")
plt.show()
```



In [34]: text3 = ' '.join(finall\_df['Description'])

```
wordcloud2 = WordCloud(mode='RGB',background_color='black').generate(text3)
# Generate plot
plt.imshow(wordcloud2)
plt.axis("off")
plt.show()
```



## About the cloud generator

- In the First Cloud generator we visualize the industries and second chart will be generated in the description.

## ABOUT THE DATA SET :

- Firstly we load the data and using pandas read function, then do some data cleaning process like null values and duplicate values etc.
- Then we do some data visualization with data, and visualize the correlation map.
- in the EDA part we ask the questions from the data and visualize through the barplots,pie charts, distplot etc.
- the next set we extract the industrie columns and we seperate it and fill with none values into no industires and filter with groupby
- Finally i use worldcloud generatior two visualize the industries and descrption.

In [ ]: