

Name- Ayush Patel

Division- D3

Roll No.- 447

PRN No.- 202201090061

```
# 1.Find the total no of startup companies in year 2023
# 2.Find the year state wise startup companies in year 2022
# 3.In Maharashtra how many startup companies are started in year 2021
# 4.In which year the maximum startup companies are started
# 5.Plot any 3 different graph on the given dataset

import pandas as pd
import matplotlib.pyplot as plt

df = pd.read_csv('ESE_Practical_dataset.csv')

#1.
total_startups_2023 = df[df["Year"] == 2023]["Count"].sum()
print("Total number of startup companies in 2023:", total_startups_2023)
print("\n")

#2.
startup_2022 = df[df["Year"] == 2022].groupby("State")["Count"].sum()
print("Year state-wise startup companies in 2022:\n", startup_2022)
print("\n")

#3.
startups_maharashtra_2021 = df[(df["State"] == "Maharashtra") & (df["Year"] == 2021)]["Count"].sum()
print("Number of startup companies started in Maharashtra in 2021:", startups_maharashtra_2021)
print("\n")

#4.
max_startup_year = df.groupby("Year")["Count"].sum().idxmax()
print("Year with the maximum number of startup companies:", max_startup_year)

#5.

#-----Graph 1-----#
df[df["Year"] == 2023].groupby("State")["Count"].sum().plot(kind="bar")
plt.xlabel("State")
plt.ylabel("Count")
plt.title("Count of Startup Companies by State in 2023")
```

```
plt.show()

#-----Graph 2-----#
df[df["State"] ==
"Maharashtra"].groupby("Year")["Count"].sum().plot(kind="pie")
plt.title("Count of Startup Companies in Maharashtra yearwise")
plt.show()

#-----Graph 3-----#
df.groupby("Year")["Count"].sum().plot(kind="line", marker="o")
plt.xlabel("Year")
plt.ylabel("Count")
plt.title("Count of Startup Companies over the Years")
plt.show()
```

oUTPUT

```
[Running] python -u "d:\Ayush\MIT\Python\447_AyushPatel_ESEPR.py"
Total number of startup companies in 2023: 17804
```

Year state-wise startup companies in 2022:

State	
Andaman and Nicobar Islands	9
Andhra Pradesh	374
Arunachal Pradesh	8
Assam	281
Bihar	521
Chandigarh	81
Chhattisgarh	236
Dadra and Nagar Haveli and Daman and Diu	12
Delhi	2569
Goa	106
Gujarat	2261
Haryana	1326
Himachal Pradesh	119
Jammu and Kashmir	172
Jharkhand	235
Karnataka	2542
Kerala	1074
Ladakh	4
Madhya Pradesh	885
Maharashtra	4792
Manipur	31
Meghalaya	10
Mizoram	6

```

Nagaland 7
Odisha 442
Puducherry 30
Punjab 291
Rajasthan 981
Sikkim 2
Tamil Nadu 1786
Telangana 1370
Tripura 27
Uttar Pradesh 2552
Uttarakhand 235
West Bengal 998
Name: Count, dtype: int64

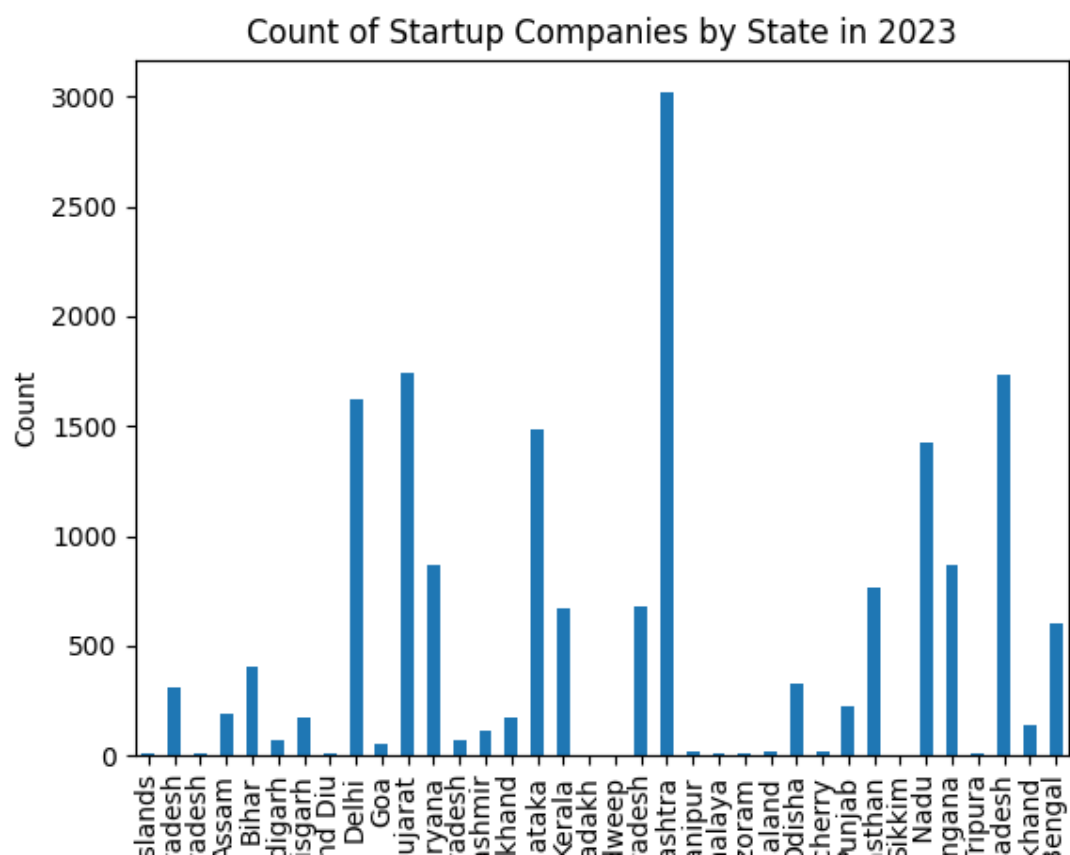
```

Number of startup companies started in Maharashtra in 2021: 3740

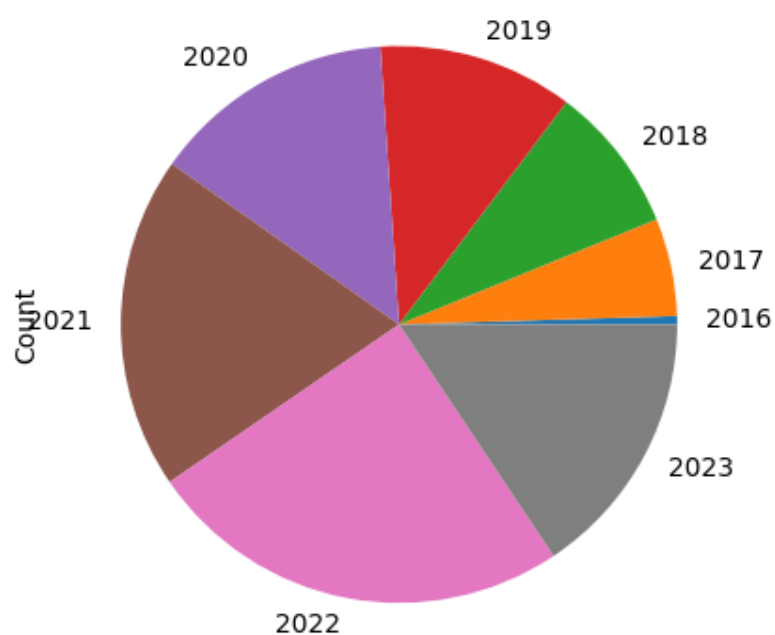
Year with the maximum number of startup companies: 2022

[Done] exited with code=0 in 63.056 seconds

GRAPH FOR THE ABOVE CODE



Count of Startup Companies in Maharashtra yearwise



Count of Startup Companies over the Years

