PROCEDURE:

* Imports Matplotlib and creates a simple pie chart with the data providing in the data list.
* Read COVID-19 data from a JSON file using pandas.
* It calculates the sum of positive ,active ,and cured cases.
* It creates a pie chart to visualize these statistics with custom colors and labels.
* Then create a pie chat to visualize the active cases in these state with custom colors and labels.
* Create a donut chart using seaborn and matplotlib to visualize the total positive ,active and cured COVID-19 cases.
* It adds a white central circle to make it a donut chart.

import matplotlib.pyplot as plt

data = [20,50,30,60]

plt.pie(data)

plt.show()

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import pandas as pd

df = pd.read\_json("C:\\Users\harsh\OneDrive\Desktop\datanew.json")

group\_size = [sum(df.positive), sum(df.active), sum(df.cured)]

group\_labels = ["Positive\n"+str(sum(df.positive)),

"Active\n"+str(sum(df.active)),

"Cured\n"+str(sum(df.cured))]

custom\_colors = ["skyblue", "yellowgreen", 'tomato']

plt.figure(figsize=(5, 5))

plt.pie(group\_size, labels=group\_labels, colors=custom\_colors)

plt.rc('font', size=12)

plt.title("Total Positive, Active, and Cured Cases", fontsize=20)

plt.show()

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df.drop(df.tail(1).index, inplace = True)

df1 = df.sort\_values(by='active', ascending=False)

df3 = df1[:5]

states = df3.state\_name

active =df3.active

colours = ["skyblue", "blue", "purple", "yellow", "red"]

plt.figure(figsize=(7,7))

plt.pie(active,labels=states,colors=colours)

plt.rc('font', size=12)

plt.title("Top 5 Active cases", fontsize=20)

plt.show()

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import pandas as pd

df = pd.read\_json("C:\\Users\harsh\OneDrive\Desktop\datanew.json")

print(df.head())

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|  | sno state\_name active positive cured death \  0 2 Andaman and Nicobar Islands 79 4805 4665 61  1 1 Andhra Pradesh 5078 875025 862895 7052  2 3 Arunachal Pradesh 269 16509 16185 55  3 4 Assam 3527 214584 210057 1000  4 5 Bihar 5501 241776 234958 1317  new\_active new\_positive new\_cured new\_death state\_code  0 84 4818 4673 61 35  1 4966 875531 863508 7057 28  2 252 16513 16206 55 12  3 3481 214657 210174 1002 18  4 5375 242224 235528 1321 10 |

import seaborn as sns

import matplotlib.pyplot as plt

group\_size = [sum(df.positive), sum(df.active), sum(df.cured)]

group\_labels = ["Positive\n"+str(sum(df.positive)),

"Active\n"+str(sum(df.active)),

"Cured\n"+str(sum(df.cured))]

custom\_colors = ["skyblue", "yellowgreen", 'tomato']

plt.figure(figsize=(5, 5))

plt.pie(group\_size, labels=group\_labels, colors=custom\_colors)

central\_circle = plt.Circle((0,0), 0.5, color='white')

fig = plt.gcf()

fig.gca().add\_artist(central\_circle)

plt.rc('font', size=12)

plt.title("Total Positive, Active, and Cured Cases", fontsize=20)

plt.show()

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df.drop(df.tail(1).index, inplace = True)

df1 = df.sort\_values(by='active', ascending=False)

df3 = df1[:5]

states = df3.state\_name

active = df3.active

colours = ["skyblue", "blue", "red", "yellow", "green"]

plt.figure(figsize=(7,7))

plt.pie(active, labels=states, autopct='%1.1f%%', colors=colours)

central\_circle = plt.Circle((0,0), 0.4, color='white')

fig = plt.gcf()

fig.gca().add\_artist(central\_circle)

plt.rc('font', size=12)

plt.title("Top 5 Active cases", fontsize=20)

plt.show()

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