**ADS ASSIGNMENT-1**

**Q1. Produce a line plot showing multiple lines with proper labels and legend.Describe what conclusions you can draw from this plot.**

CODE:

#Importing libraries

Import pandas as pd

import matplotlib.pyplot as plt

"""

LINE PLT

"""

# Read csv file from the folder

abnb = pd.read\_csv('ABNB.csv')

print(abnb)

# Plotting multiple lines graph

plt.figure(figsize=(9,9))

plt.plot(abnb["Open"], label="Open")

plt.plot(abnb["High"], label="High")

plt.plot(abnb["Low"], label="Low")

plt.plot(abnb["Close"], label="Close")

plt.legend()

#adding labels

plt.xlabel("Data")

plt.ylabel("Volumes")

plt.show()

**Explanation:-**

The line charts shows movement of the stock of ABNB. Here, I choose 4 element from mentioned data set, which is the Open of the stock, day’s high of the stock, Day’s low of the ABNB and last the day’s close of the stock. In the chart we can see the most of line cross interconnect with each other so we can also say that this stock is no longer popular. The line chart is shows data the movement of backward or down side of the item.

**Dataset Link:** [**https://www.kaggle.com/datasets/954c32fa9a1e5259757edc0326f0da8b0937e95b327b99a6fb124df7ae5dc91f?resource=download**](%20https:/www.kaggle.com/datasets/954c32fa9a1e5259757edc0326f0da8b0937e95b327b99a6fb124df7ae5dc91f?resource=download)

**OUTPUT:**

Chart, line chart, histogram

Description automatically generated

**Q2) Produce graphs using two other visualisation methods. Explain why you picked this type of graph and describe what conclusions you can draw**.

CODE:

"""

HISTOGRAM PLT

"""

# Read csv file from the folder

score = pd.read\_csv('adm\_data.csv')

print(score)

# Plotting 2 histograms with features

plt.figure(figsize=(8,8))

plt.hist(score["CGPA"], label="CGPA",bins=4)

plt.hist(score["SOP"], label="SOP",bins=4)

plt.legend()

#adding labels

plt.xlabel("Grades")

plt.ylabel("Frequency")

plt.show()

**Explanation:-**

The above graph show the admission process of university. So, the above histogram plot and show the two different figure of CGPA and SOP where student get admission .so, apparently the grades of student who get admit with their CGPA is slightly higher than that of student who get admit with their SOP.

**Dataset Link:** [**https://www.kaggle.com/datasets/akshaydattatraykhare/data-for-admission-in-the-university**](https://www.kaggle.com/datasets/akshaydattatraykhare/data-for-admission-in-the-university)

**OUTPUT**:

Chart, histogram

Description automatically generated

CODE:

"""

PIE PLT

"""

# Read csv file from the folder

country = pd.read\_csv('ghi.csv')

print(country)

#putting name for pie chart

names = ["Afghanistan", "Albania", "Bangladesh", "Bolivia", "Bosnia and Herzegovina"]

plt.figure()

#adding percentage of total index

plt.pie(country["Global Hunger Index (2021)"], labels=names, autopct='%1.1f%%')

#giving title

plt.title("Golbal Hunger Index")

plt.show()

**Explanation:-**

The above pie chart indicate the global huger index of five different countries. Apparently, Afghanistan has 45.2 hunger percentage which is highest among all. Following that, Albania, Bangladesh and Bolivia has 18.4, 16.9, and 11.3 hunger percentage respectively. While, Bosnia and Herzegovina are only countries which has least percentage of global hunger compare to all other countries as it has only 8.3% of proportion GHI. With the help of this pie chart I can properly use the visualization with the dataset that elaborate GHI using pie chart that’s why I chose this chart.

**Dataset Link:** [**https://www.kaggle.com/datasets/whenamancodes/the-global-hunger-index**](%20https:/www.kaggle.com/datasets/whenamancodes/the-global-hunger-index)

**OUTPUT:**

Chart, pie chart

Description automatically generated

**Link of my Repo – https://github.com/milankatrodiya/ADS-Assignment1.git**