   import pandas as pd

   # Load the dataset

   df = pd.read\_csv('path\_to\_your\_dataset/iris.csv')

# Display the first few rows

 print(df.head())

#Explore the dataset's structure

     print(df.info())

     print(df.isnull().sum())

#Clean the dataset

     df\_filled = df.fillna(method='ffill')  # Forward fill

     df\_dropped = df.dropna()

#Compute basic statistics

   print(df.describe())

#Perform groupings on a categorical column

   species\_means = df.groupby('species').mean()

   print(species\_means)

#Identify patterns or findings

import matplotlib.pyplot as plt

   plt.plot(df.index, df['sepal\_length'])

   plt.title('Sepal Length Across Samples')

   plt.xlabel('Sample Index')

   plt.ylabel('Sepal Length (cm)')

   plt.show()

   species\_means['sepal\_length'].plot(kind='bar')

   plt.title('Average Sepal Length per Species')

   plt.xlabel('Species')

   plt.ylabel('Average Sepal Length (cm)')

   plt.show()

# Histogram of a numerical column

   df['petal\_length'].plot(kind='hist', bins=20)

   plt.title('Distribution of Petal Length')

   plt.xlabel('Petal Length (cm)')

   plt.ylabel('Frequency')

   plt.show()

# Scatter plot to visualize relationships between two numerical columns

   import seaborn as sns

   sns.scatterplot(x='sepal\_length', y='petal\_length', hue='species', data=df)

   plt.title('Sepal Length vs. Petal Length')

   plt.xlabel('Sepal Length (cm)')

   plt.ylabel('Petal Length (cm)')

   plt.legend(title='Species')

   plt.show()

  try:

      df = pd.read\_csv('path\_to\_your\_dataset/iris.csv')

  except FileNotFoundError:

      print("The specified file was not found.")

  except pd.errors.EmptyDataError:

      print("The file is empty.")

  except pd.errors.ParserError:

      print("Error parsing the file.")