import pandas as pd

import seaborn as sns

import matplotlib.pyplot as plt

from scipy.stats import skew, kurtosis, norm

iris = sns.load\_dataset('iris')

print("First five rows of the Iris dataset:")

print(iris.head())

selected\_attribute = 'sepal\_length'

plt.figure(figsize=(12, 6))

sns.histplot(iris[selected\_attribute], kde=True)

plt.title(f'Histogram and KDE of {selected\_attribute}')

plt.xlabel(selected\_attribute)

plt.ylabel('Frequency')

plt.show()

pdf\_values = norm.pdf(iris[selected\_attribute], iris[selected\_attribute].mean(), iris[selected\_attribute].std())

pdf\_df = pd.DataFrame({selected\_attribute: iris[selected\_attribute], 'Probability Density': pdf\_values})

print(f"\nProbability density of {selected\_attribute}:")

print(pdf\_df.head())

attr\_skewness = skew(iris[selected\_attribute])

attr\_kurtosis = kurtosis(iris[selected\_attribute])

print(f"\nSkewness of {selected\_attribute}: {attr\_skewness}")

print(f"Kurtosis of {selected\_attribute}: {attr\_kurtosis}")