# Imports

import pandas as pd

import numpy as np

import matplotlib.pyplot as plt

# Load the data

mydf = pd.read\_csv('NFL2023Season.csv')

# 1) Print the Dataframe

print('\n\n1) \*\*\*\*\*\*\*\*\*\*')

print(mydf)

# 2) Printing a single row

print('\n\n2) \*\*\*\*\*\*\*\*\*\*')

print(mydf.loc[13])

# 3) Printing the adjacent columns

print('\n\n3) \*\*\*\*\*\*\*\*\*\*')

print(mydf[['NFL Team', 'PCT']])

# 4) Descriptive Stats for Winning Percent

print('\n\n4) Winning Percent \*\*\*\*\*\*\*\*\*\*')

print('The Max is', mydf['PCT'].max())

print('The Min is', mydf['PCT'].min())

print('The Mean is', mydf['PCT'].mean())

print('The Median is', mydf['PCT'].median())

print('The Range is ', np.ptp(mydf['PCT']))

print('The Standard Deviation is ', mydf['PCT'].std())

print('The Variance is ', mydf['PCT'].var())

# 5) Descriptive Stats for Points For

print('\n\n5) Points For \*\*\*\*\*\*\*\*\*\*')

print('The Max is', mydf['PointsFor'].max())

print('The Min is', mydf['PointsFor'].min())

print('The Mean is', mydf['PointsFor'].mean())

print('The Median is', mydf['PointsFor'].median())

print('The Range is ', np.ptp(mydf['PointsFor']))

print('The Standard Deviation is ', mydf['PointsFor'].std())

print('The Variance is ', mydf['PointsFor'].var())

# 6) Net Points Histogram

hist = mydf.hist(column='Net Pts', figsize=[10,7], bins=11)

plt.title('Histogram of Net Points')

for ax in hist.flatten():

ax.set\_xlabel("Net Points")

ax.set\_ylabel("Count")

plt.show()