**Data Exploration Functions**

**Measures of Central Tendency**

df.describe()

df.mean()

df.median()

df.mode()

**Measures of Spread**

df.describe()

df.var()

df.std()

df.max()

df.min()

range = df.max() - df.min()

df.quantile(0.25)

df.quantile(0.75)

IQR = df.quantile(0.75) - df.quantile(0.25)

**Dataset Exploration**

df.dtypes

df.shape

df.describe()

df.head()

df.tail()

df.iloc[]

df.loc[]

print("2002" in df)

**Computing New Calculations**

# Create the function

def function\_name(parameter1, parameter2):

return calculation

# Create a new column using the function

df["new\_column"] = function\_name(df["column1"], df["column2"])

**Pie Charts**

df1 = df.groupby("column1").sum()

df1.plot.pie(y="column2", labels=df1.index)

plt.show()

**Boxplots**

df.plot(kind="box")

df["column"].plot(kind="box")

df[["column1", "column2"]].plot(kind="box")

df.boxplot(column=["column1", "column2"])

plt.show()

**Histograms**

df["column1"].plot(kind="hist", title="Histogram")

plt.hist(df[["column1", "column2"]])

df.hist(column=["column1", "column2"])

df.plot.hist()

plt.show()

**Scatterplots**

df.plot(kind="scatter", x="column1", y="column2")

df.plot.scatter(x="column1", y="column2")

plt.show()