CORRELATION
DESCRIPTIVE STATISTICS

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Correlation

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```python
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
from scipy import stats
```

```python
# Load current-power dataset
df = pd.read_csv(r'raw\current-power-data.csv',delimiter=",")
df
```

```python
# Summary of Statistics
df.describe()
```

```python
# Covariance of current and power
df.cov()
```

```python
# Correlation coefficient of current and power
df.corr()
```

```python
# Scatter plot
x = df['Current']
y = df['Power']

# scatter plot
plt.figure()
plt.scatter(x,y)
plt.show()
```

Air Quality

```python
# Load air quality dataset
air = pd.read_csv(r"raw\air-quality-dataset.csv",delimiter=",")
air
```

NOx-Humidity

```python
# Regression line
x = air['NOx']
y = air['Relative_Humidity']
slope, intercept, r_value, p_value, std_err = stats.linregress(x,y)
line = slope*x + intercept

# Scatter plot
plt.figure(figsize=(7,5))
plt.scatter(x,y)
plt.plot(x,line)
plt.show()

```