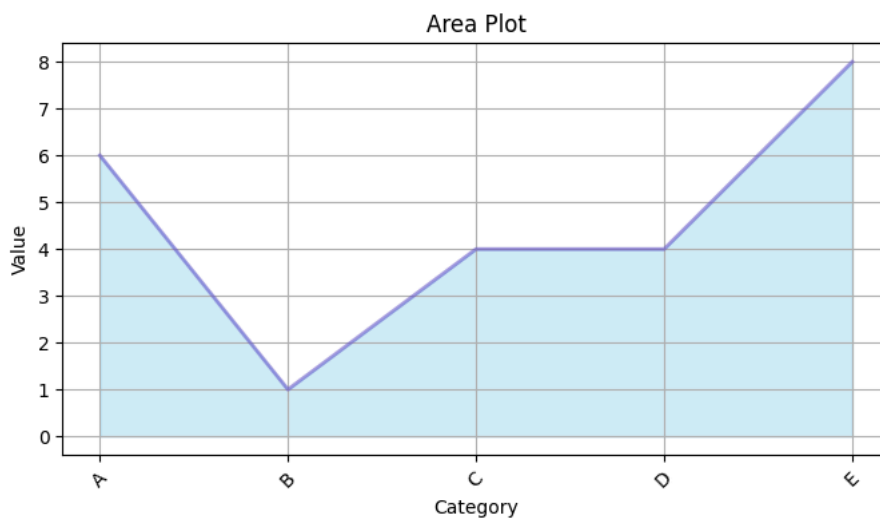


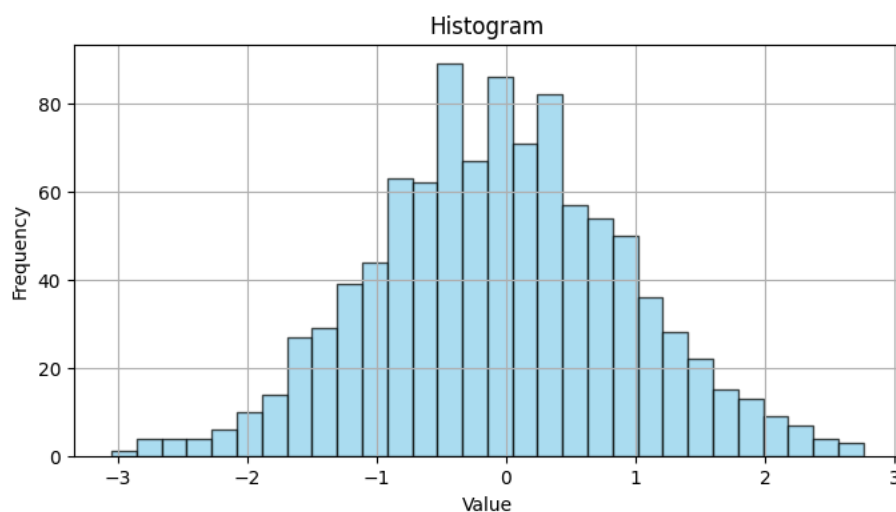
```
import numpy as np
import pandas as pd
import matplotlib.pyplot as plt
import seaborn as sns
```

```
np.random.seed(0)
data = pd.DataFrame({
    'Category': ['A', 'B', 'C', 'D', 'E'],
    'Value': [np.random.randint(1, 10) for _ in range(5)]
})
```

```
plt.figure(figsize=(8, 4))
plt.fill_between(data['Category'], data['Value'], color='skyblue', alpha=0.4)
plt.plot(data['Category'], data['Value'], color='Slateblue', alpha=0.6, linewidth=2)
plt.title('Area Plot')
plt.xlabel('Category')
plt.ylabel('Value')
plt.xticks(rotation=45)
plt.grid(True)
plt.show()
```



```
plt.figure(figsize=(8, 4))
plt.hist(np.random.normal(0, 1, 1000), bins=30, color='skyblue', edgecolor='black', alpha=0.7)
plt.title('Histogram')
plt.xlabel('Value')
plt.ylabel('Frequency')
plt.grid(True)
plt.show()
```

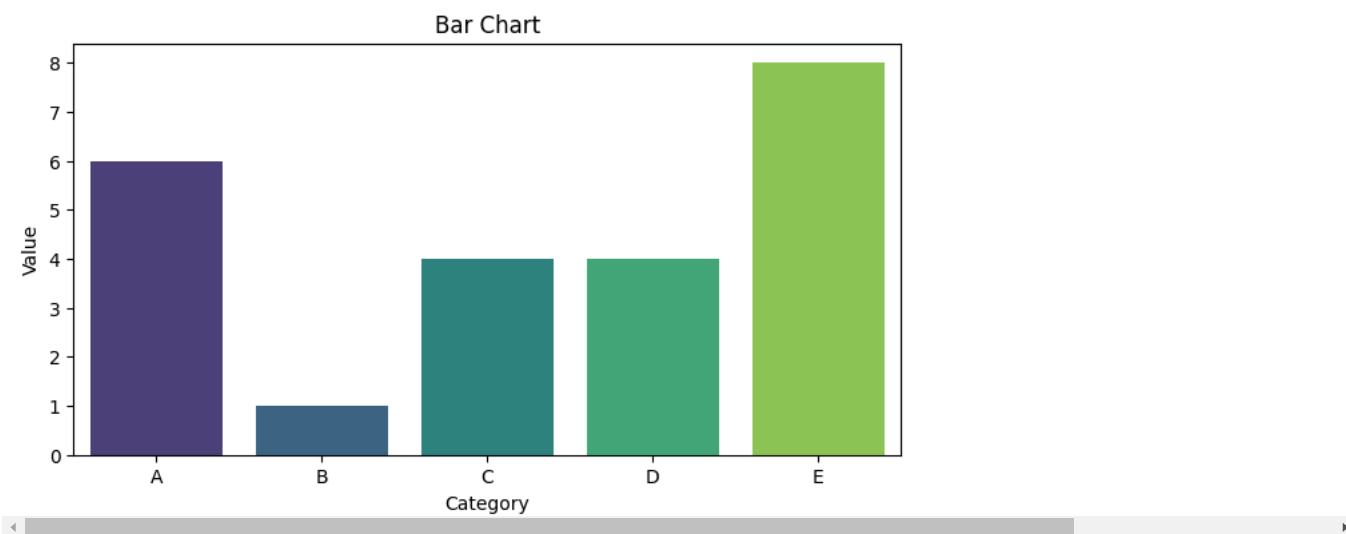


```
plt.figure(figsize=(8, 4))
sns.barplot(x='Category', y='Value', data=data, palette='viridis')
plt.title('Bar Chart')
plt.xlabel('Category')
plt.ylabel('Value')
plt.show()
```

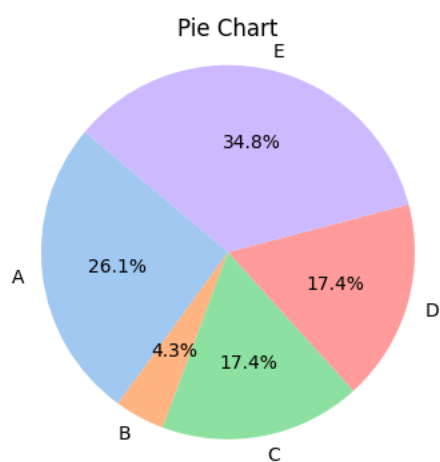
<ipython-input-5-5470b8ea6c46>:2: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue` and set `le

```
sns.barplot(x='Category', y='Value', data=data, palette='viridis')
```



```
plt.figure(figsize=(8, 4))
plt.pie(data['Value'], labels=data['Category'], autopct='%1.1f%%', startangle=140, colors=sns.color_palette('pastel'))
plt.axis('equal')
plt.title('Pie Chart')
plt.show()
```

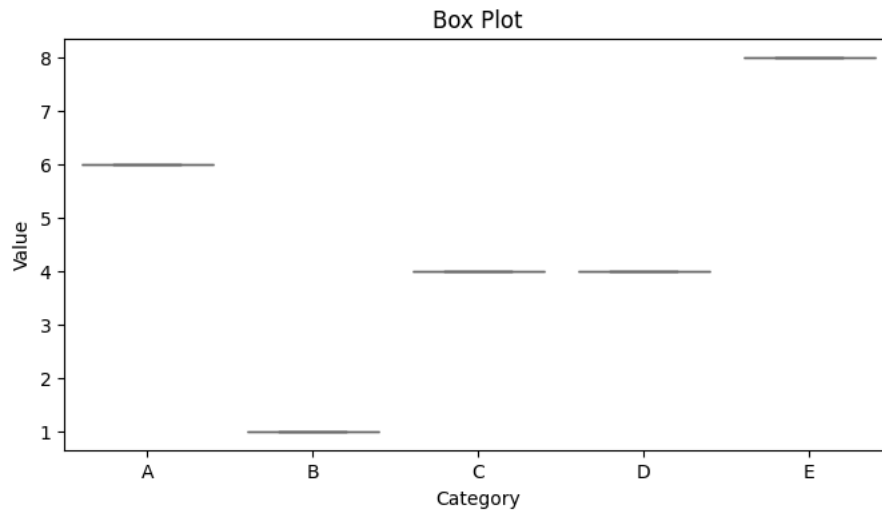


```
plt.figure(figsize=(8, 4))
sns.boxplot(x='Category', y='Value', data=data, palette='Set3')
plt.title('Box Plot')
plt.xlabel('Category')
plt.ylabel('Value')
plt.show()
```

<ipython-input-7-4ec6b7d60f46>:2: FutureWarning:

Passing `palette` without assigning `hue` is deprecated and will be removed in v0.14.0. Assign the `x` variable to `hue` and set `le

```
sns.boxplot(x='Category', y='Value', data=data, palette='Set3')
```



```
x = np.random.randn(100)
y = 2 * x + np.random.randn(100)
plt.figure(figsize=(8, 4))
plt.scatter(x, y, color='salmon', alpha=0.6)
plt.title('Scatter Plot')
plt.xlabel('X')
plt.ylabel('Y')
plt.grid(True)
plt.show()
```

