

```
import matplotlib.pyplot as plt
# Sample data
categories = ['Category A', 'Category B', 'Category C', 'Category D']
values = [23, 45, 56, 78]
# Create bar chart
plt.figure(figsize=(8, 5))
plt.bar(categories, values, color='skyblue')
plt.xlabel('Categories')
plt.ylabel('Values')
plt.title('Bar Chart Example')
plt.show()
```

```
import matplotlib.pyplot as plt
# Sample data
categories = ['Category A', 'Category B', 'Category C', 'Category D']
values = [23, 45, 56, 78]
# Create pie chart
plt.figure(figsize=(7, 7))
plt.pie(values, labels=categories, autopct='%1.1f%%', startangle=140)
plt.title('Pie Chart Example')
plt.show()
```

```
import matplotlib.pyplot as plt
# Sample data
x = [1, 2, 3, 4, 5]
y = [10, 24, 36, 40, 50]
# Create line chart
plt.figure(figsize=(8, 5))
plt.plot(x, y, marker='o', color='b', linestyle='--')
plt.xlabel('X-axis')
plt.ylabel('Y-axis')
plt.title('Line Chart Example')
plt.show()
```

```
import seaborn as sns
import numpy as np
import matplotlib.pyplot as plt
# Generate random data
data = np.random.rand(10, 10)
# Create heatmap
plt.figure(figsize=(8, 6))
sns.heatmap(data, annot=True, cmap='coolwarm')
plt.title('Heatmap Example')
plt.show()
```

```
import matplotlib.pyplot as plt
import numpy as np
# Generate random data
data = np.random.normal(0, 1, 1000)
# Create histogram
plt.figure(figsize=(8, 5))
plt.hist(data, bins=30, color='purple', edgecolor='black')
plt.xlabel('Value')
plt.ylabel('Frequency')
plt.title('Histogram Example')
plt.show()
```