

EXP 5: EDA - Data Visualization with Matplotlib

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#EXP 5: EDA-Data Visualization with Matplotlib
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# 5.1 Basic plotting: line charts, bar charts, histograms
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```
import matplotlib.pyplot as plt
```

```
# Line chart
```

```
x = [1, 2, 3, 4, 5]
```

```
y = [10, 20, 15, 25, 30]
```

```
plt.plot(x, y, marker='o')
```

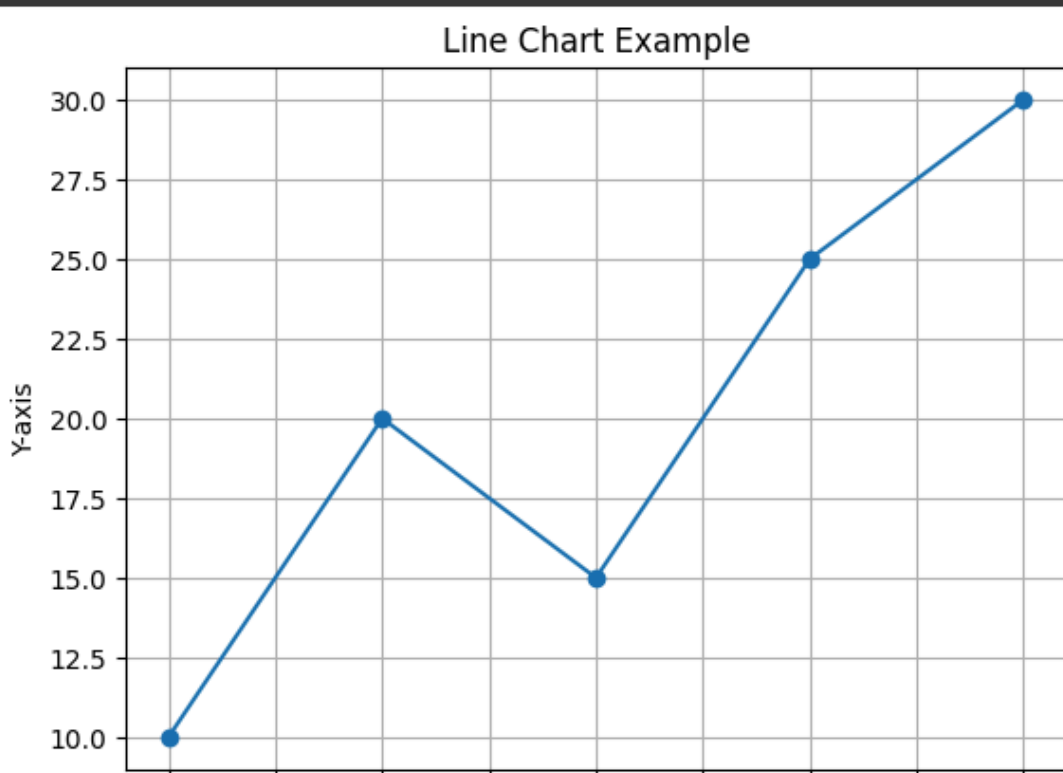
```
plt.title("Line Chart Example")
```

```
plt.xlabel("X-axis")
```

```
plt.ylabel("Y-axis")
```

```
plt.grid(True)
```

```
plt.show()
```

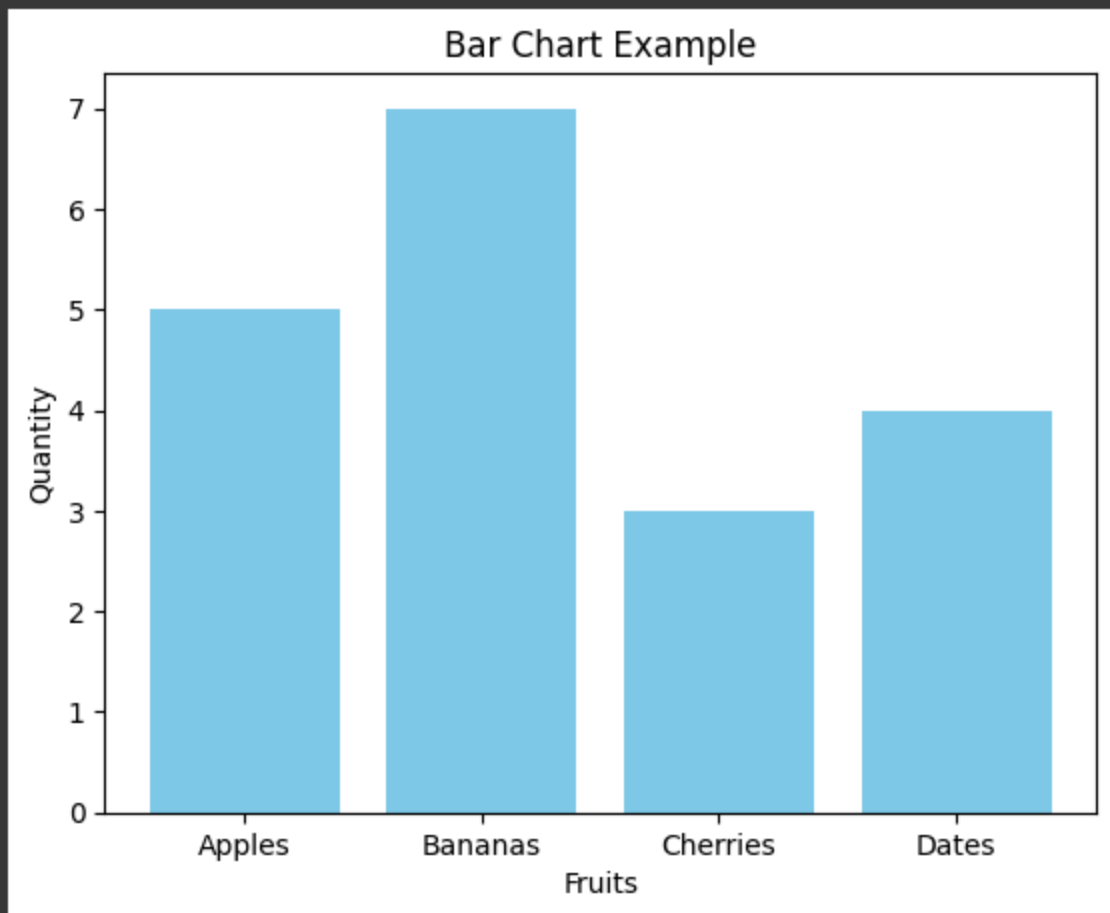




Bar chart

```
categories = ['Apples', 'Bananas', 'Cherries', 'Dates']  
values = [5, 7, 3, 4]
```

```
plt.bar(categories, values, color='skyblue')  
plt.title("Bar Chart Example")  
plt.xlabel("Fruits")  
plt.ylabel("Quantity")  
plt.show()
```





Histogram

```
import numpy as np
```

```
data = np.random.normal(loc=50, scale=10, size=1000)
plt.hist(data, bins=30, color='lightgreen', edgecolor='black')
plt.title("Histogram Example")
plt.xlabel("Value")
plt.ylabel("Frequency")
plt.show()
```

