

DATA VISUALIZATION

Bar Chart & Heat map

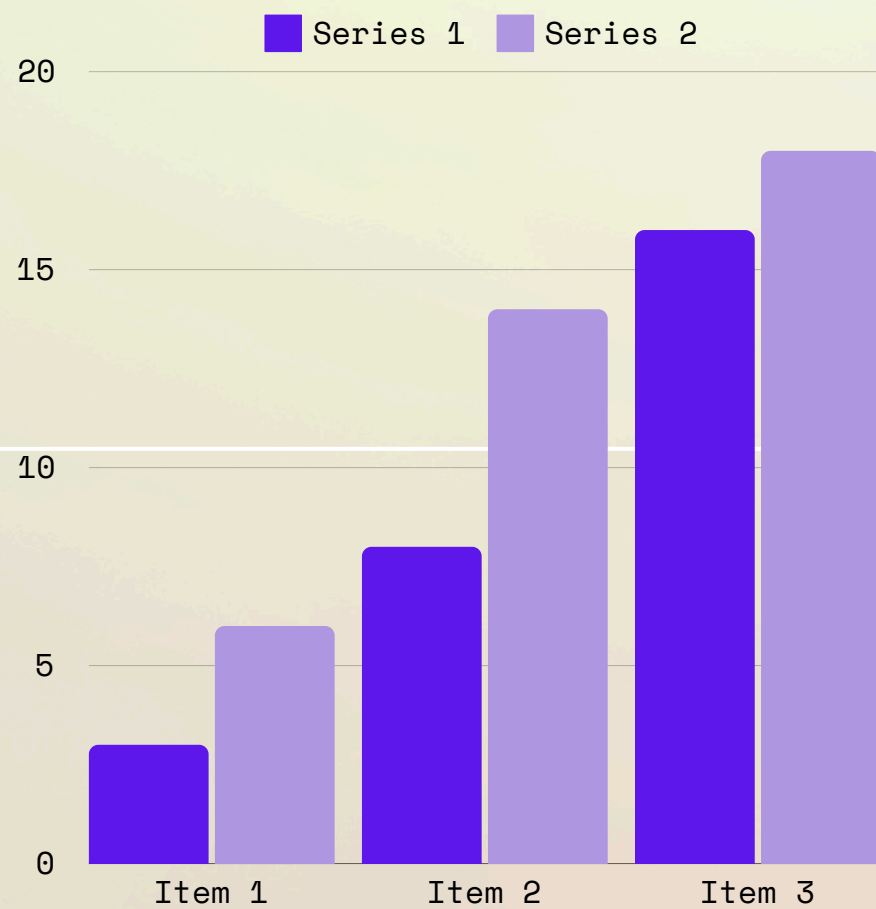


Abdul Rauf jatoi

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Bar Chart

Bar charts visually compare data using rectangular bars. Length of each bar represents the value of each category.



```
import seaborn as sns
import matplotlib.pyplot as plt
# import pandas as pd

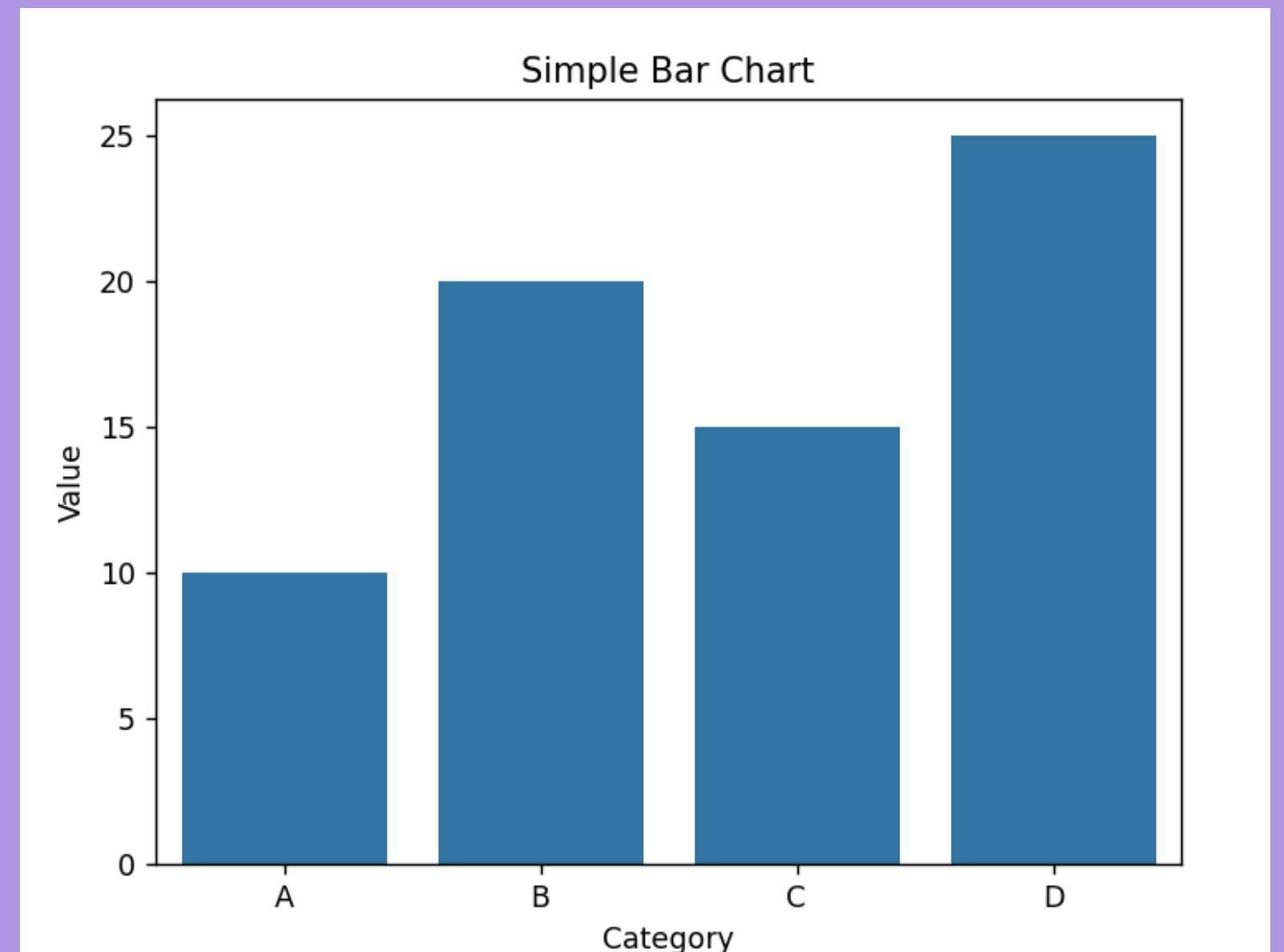
# Sample data
data = {'Category': ['A', 'B', 'C', 'D'],
        'Value': [10, 20, 15, 25]}

# Create a Seaborn DataFrame
import pandas as pd
df = pd.DataFrame(data)

# Create a bar plot
sns.barplot(x='Category', y='Value', data=df)

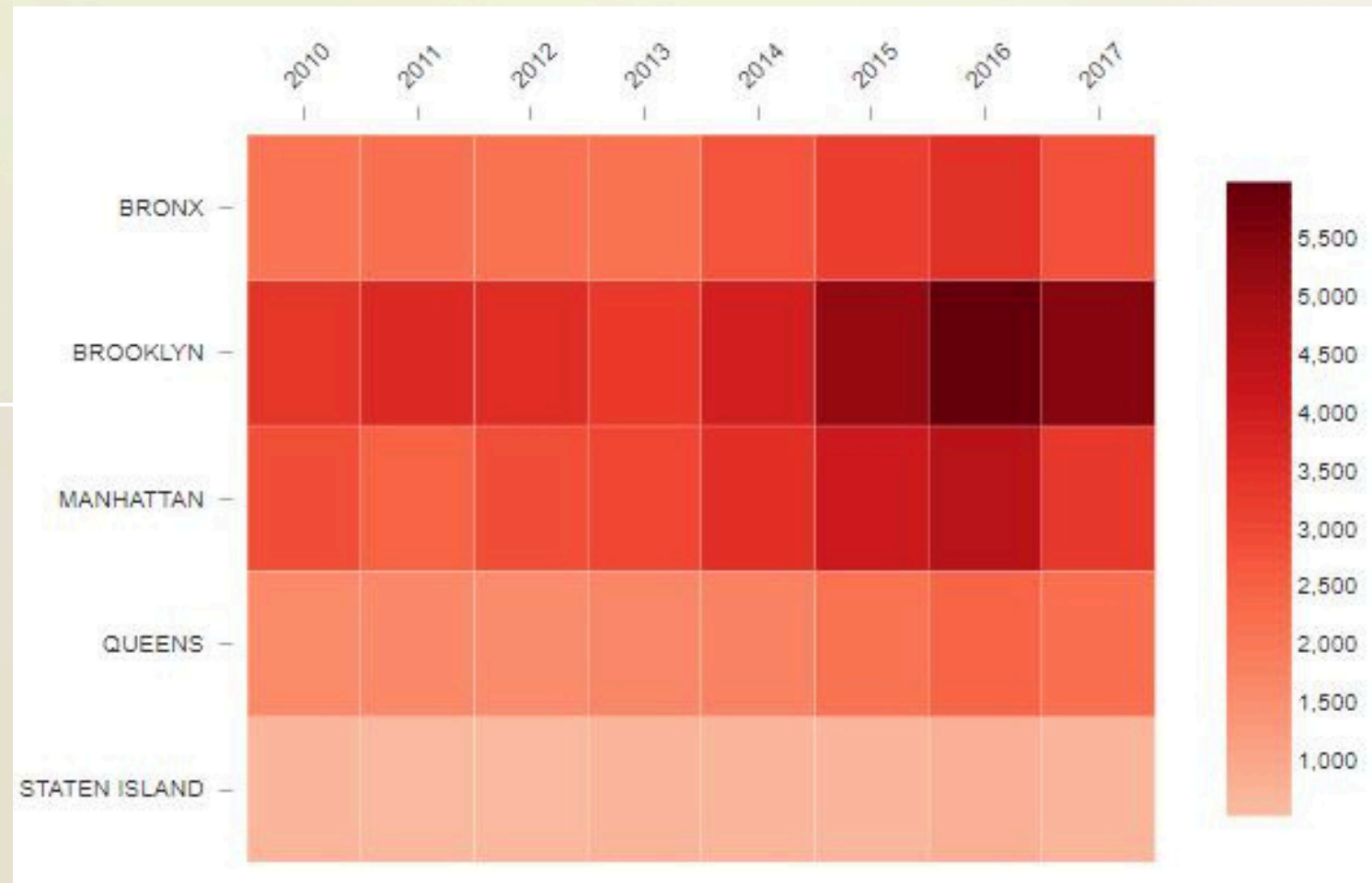
# Show plot
plt.title('Simple Bar Chart')
plt.show()
```

Bar chart



Heat map

A heat map uses color gradients to represent data intensity, highlighting patterns and variations across a grid or matrix.



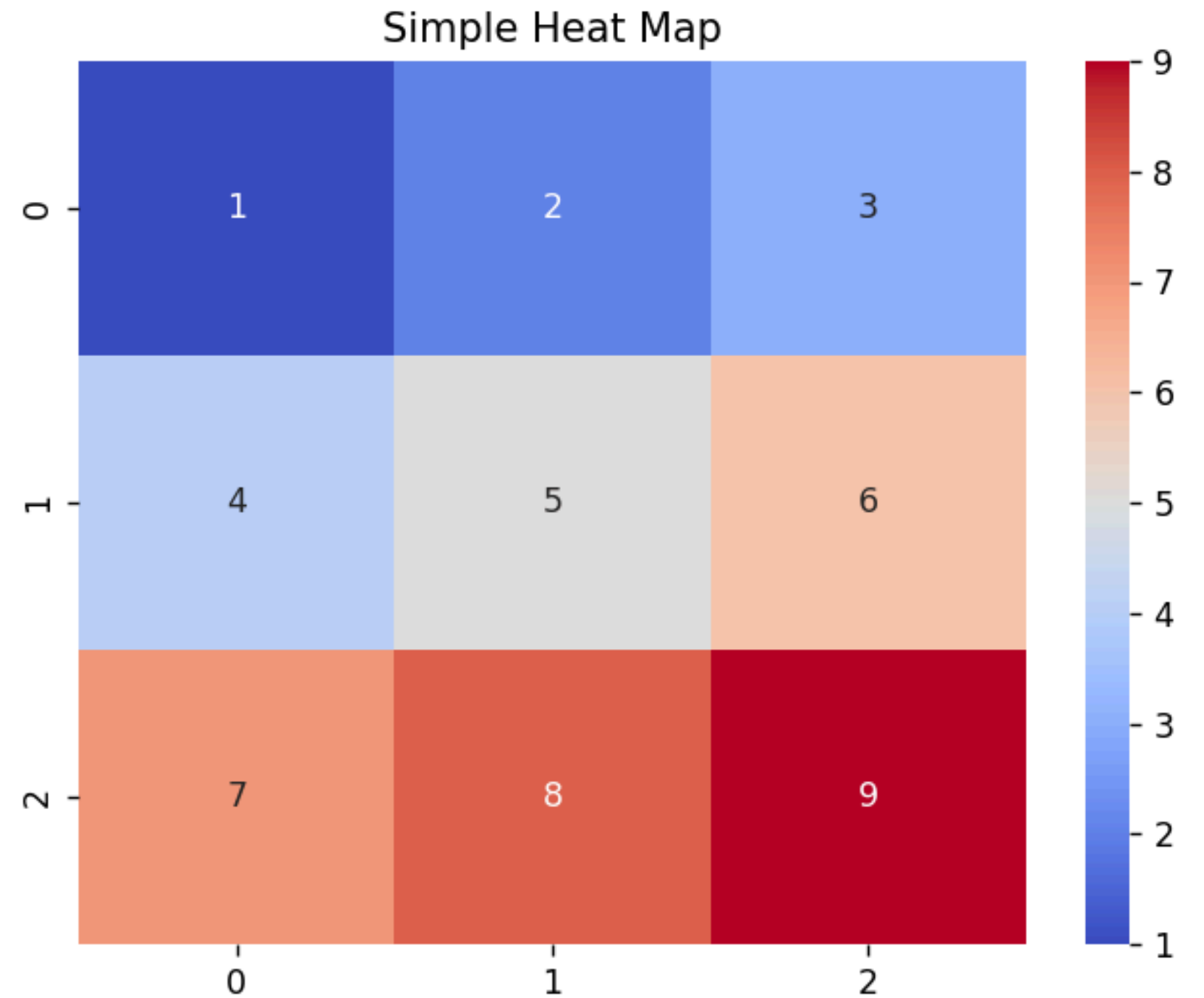
Heat map

```
✓ import seaborn as sns
import matplotlib.pyplot as plt
import numpy as np

# Sample data
data = np.array([[1, 2, 3], [4, 5, 6], [7, 8, 9]])

# Create a heat map
sns.heatmap(data, annot=True, cmap='coolwarm')

# Show plot
plt.title('Simple Heat Map')
plt.show()
```



Bar Chart

Visualizes categorical data, making it easy to compare quantities across different categories, helping identify trends and differences.

Heat map

Displays data density or intensity with color gradients, revealing patterns and correlations in matrix or grid-like data structures

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