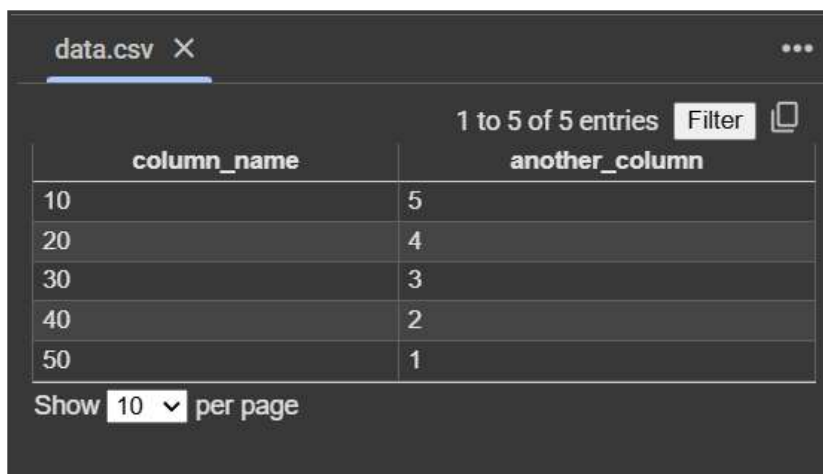


Using the Pandas library, load a CSV file and perform basic data analysis tasks, such as calculating the average of a selected column. Additionally, use Matplotlib to create visualizations, including bar charts, scatter plots, and heatmaps, to analyze the data. Provide insights and observations based on the analysis and visualizations.

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

data_dict = {
    'column_name': [10, 20, 30, 40, 50],
    'another_column': [5, 4, 3, 2, 1]
}
df = pd.DataFrame(data_dict)
df.to_csv('data.csv', index=False)
print("Sample data.csv file created!")
Sample data.csv file created!
```

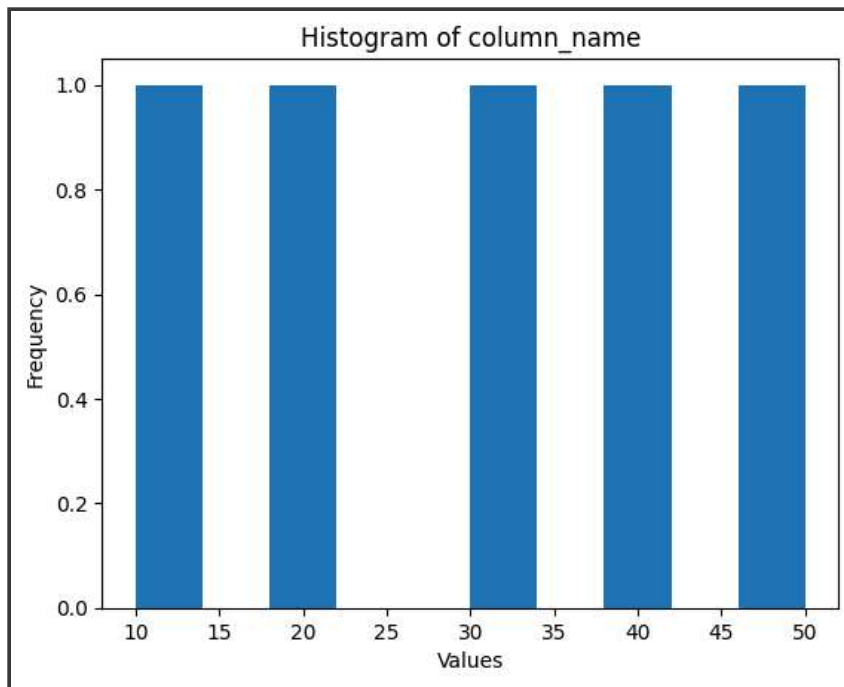


column_name	another_column
10	5
20	4
30	3
40	2
50	1

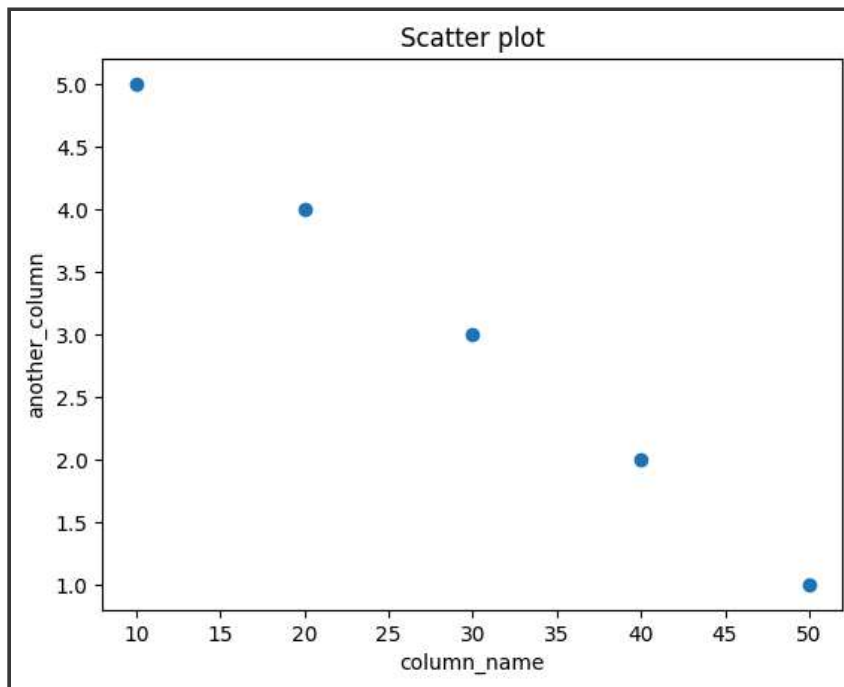
First 5 rows:

	column_name	another_column
0	10	5
1	20	4
2	30	3
3	40	2
4	50	1

Average of column_name: 30.0



```
plt.scatter(data['column_name'], data['another_column'])  
plt.xlabel('column_name')  
plt.ylabel('another_column')  
plt.title('Scatter plot')  
plt.show()
```



```
import seaborn as sns
sns.heatmap(data.corr(), annot=True)
plt.title('Correlation Heatmap')
plt.show()
```

