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

df = pd.read_csv('day.csv')

df.head()
```

	instant	dteday	season	yr	mnth	holiday	weekday	workingday	weathersit	temp	atemp	hum	windspeed	casual	registered	cnt
0	1	01-01-2011	1	0	1	0	6	0	2	0.344167	0.363625	0.805833	0.160446	331	654	985
1	2	02-01-2011	1	0	1	0	0	0	2	0.363478	0.353739	0.696087	0.248539	131	670	801
2	3	03-01-2011	1	0	1	0	1	1	1	0.196364	0.189405	0.437273	0.248309	120	1229	1349
3	4	04-01-2011	1	0	1	0	2	1	1	0.200000	0.212122	0.590435	0.160296	108	1454	1562
4	5	05-01-2011	1	0	1	0	3	1	1	0.226957	0.229270	0.436957	0.186900	82	1518	1600

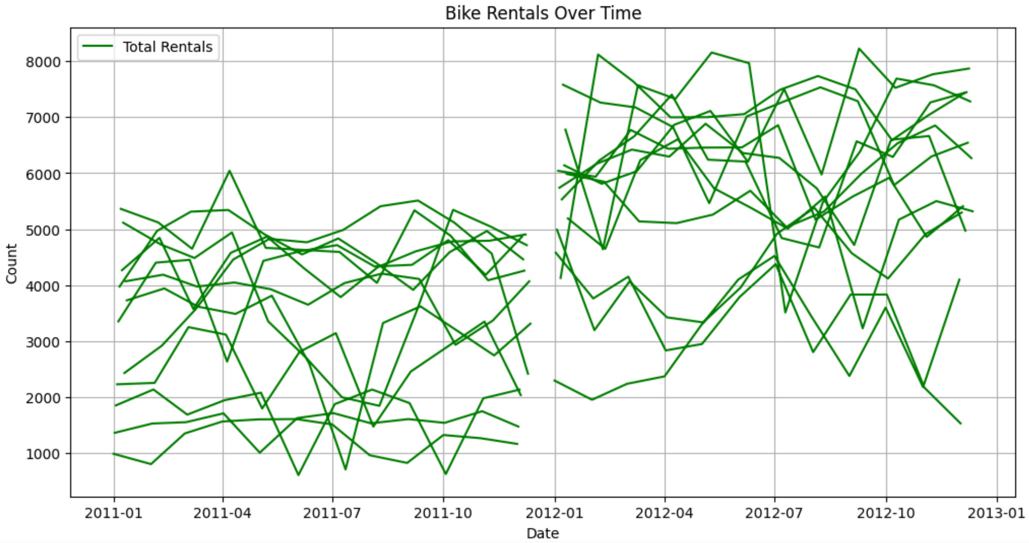
Next steps: Generate code with df View recommended plots New interactive sheet

```
print(df.shape)
df.info()

print(df.isnull().sum())

df.describe()
```

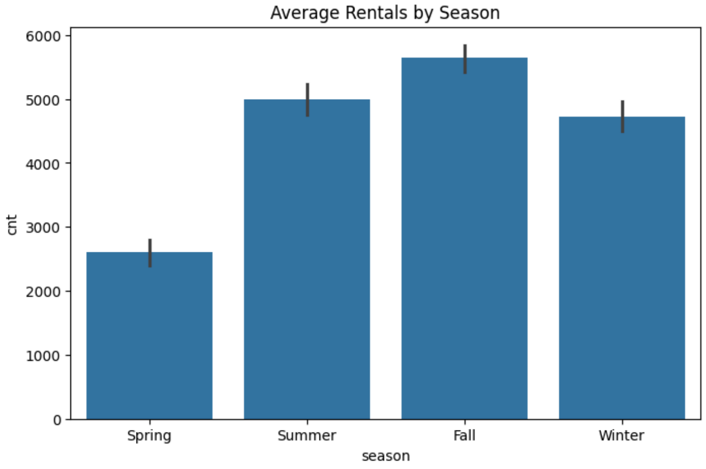
```
(731, 16)
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 731 entries, 0 to 730
Data columns (total 16 columns):
 #   Column      Non-Null Count  Dtype  
---  ------      --------------  -----  
 0   instant     731 non-null    int64  
 1   dteday      731 non-null    object 
 2   season      731 non-null    int64  
 3   yr          731 non-null    int64  
 4   mnth        731 non-null    int64  
 5   holiday     731 non-null    int64  
 6   weekday     731 non-null    int64  
 7   workingday  731 non-null    int64  
 8   weathersit  731 non-null    int64  
 9   temp        731 non-null    float64
 10  atemp       731 non-null    float64
 11  hum         731 non-null    float64
 12  windspeed   731 non-null    float64
 13  casual      731 non-null    int64  
 14  registered  731 non-null    int64  
 15  cnt         731 non-null    int64  
dtypes: float64(4), int64(11), object(1)
memory usage: 91.5+ KB
instant       0
dteday        0
season        0
yr            0
mnth          0
holiday       0
weekday       0
workingday    0
weathersit    0
temp          0
atemp         0
hum           0
windspeed     0
casual        0
registered    0
cnt           0
dtype: int64
```

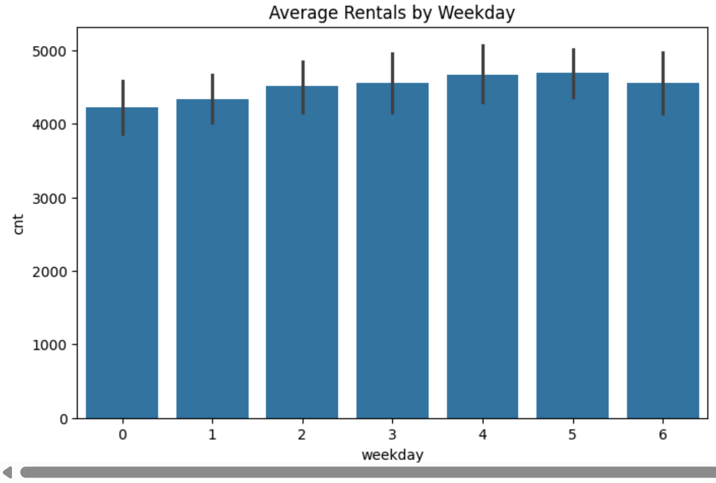
	instant	season	yr	mnth	holiday	weekday	workingday	weathersit	temp	atemp	hum	windspeed	casual	registered	
count	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.000000	731.
mean	366.000000	2.496580	0.500684	6.519836	0.028728	2.997264	0.683995	1.395349	0.495385	0.474354	0.627894	0.190486	848.176471	3656.172367	4504.
std	211.165812	1.110807	0.500342	3.451913	0.167155	2.004787	0.465233	0.544894	0.183051	0.162961	0.142429	0.077498	686.622488	1560.256377	1937.
min	1.000000	1.000000	0.000000	1.000000	0.000000	0.000000	0.000000	1.000000	0.059130	0.079070	0.000000	0.022392	2.000000	20.000000	22.
25%	183.500000	2.000000	0.000000	4.000000	0.000000	1.000000	0.000000	1.000000	0.337083	0.337842	0.520000	0.134950	315.500000	2497.000000	3152.
50%	366.000000	3.000000	1.000000	7.000000	0.000000	3.000000	1.000000	1.000000	0.498333	0.486733	0.626667	0.180975	713.000000	3662.000000	4548.
75%	548.500000	3.000000	1.000000	10.000000	0.000000	5.000000	1.000000	2.000000	0.655417	0.608602	0.730209	0.233214	1096.000000	4776.500000	5956.
max	731.000000	4.000000	1.000000	12.000000	1.000000	6.000000	1.000000	3.000000	0.861667	0.840896	0.972500	0.507463	3410.000000	6946.000000	8714.

```
df['dteday'] = pd.to_datetime(df['dteday'], errors='coerce')

plt.figure(figsize=(12, 6))
plt.plot(df['dteday'], df['cnt'], label='Total Rentals', color='green')
plt.title('Bike Rentals Over Time')
plt.xlabel('Date')
plt.ylabel('Count')
plt.grid(True)
plt.legend()
plt.show()
```

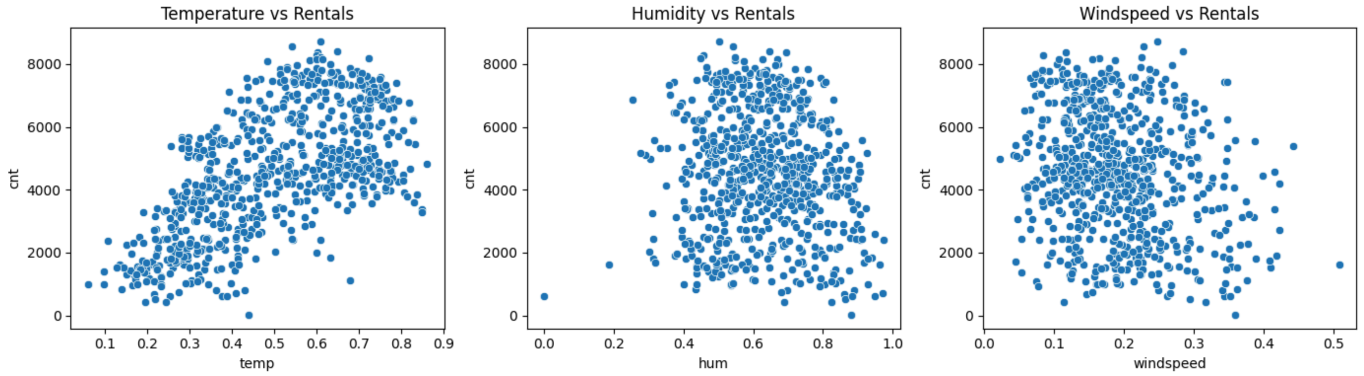


```
season_map = {1: 'Spring', 2: 'Summer', 3: 'Fall', 4: 'Winter'}
df['season'] = df['season'].map(season_map)

plt.figure(figsize=(8, 5))
sns.barplot(data=df, x='season', y='cnt')
plt.title('Average Rentals by Season')
plt.show()

plt.figure(figsize=(8, 5))
sns.barplot(data=df, x='weekday', y='cnt')
plt.title('Average Rentals by Weekday')
plt.show()
```

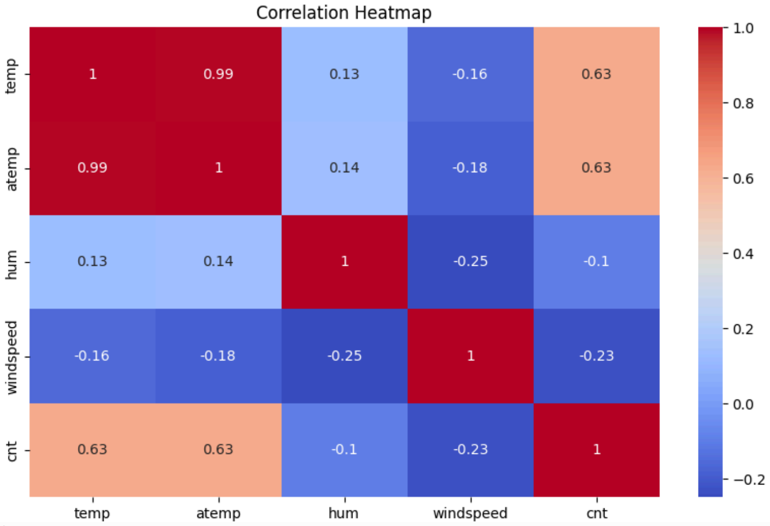




```
plt.figure(figsize=(14, 4))

plt.subplot(1, 3, 1)
sns.scatterplot(data=df, x='temp', y='cnt')
plt.title('Temperature vs Rentals')

plt.subplot(1, 3, 2)
sns.scatterplot(data=df, x='hum', y='cnt')
plt.title('Humidity vs Rentals')
plt.subplot(1, 3, 3)
sns.scatterplot(data=df, x='windspeed', y='cnt')
plt.title('Windspeed vs Rentals')

plt.tight_layout()
plt.show()
```



```
plt.figure(figsize=(10, 6))
corr = df[['temp', 'atemp', 'hum', 'windspeed', 'cnt']].corr()
sns.heatmap(corr, annot=True, cmap='coolwarm')
plt.title('Correlation Heatmap')
plt.show()
```


Correlation Heatmap
temp
atemp
hum
windspeed
cnt
temp
atemp
hum
windspeed
cnt