In [1]:
```
#Assignment 7 (airquality.csv (Visualization))
#Name : Pallavi Rajendra Jadhav
#Roll No.: 3024
```

In [2]:
```
import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import random as rd
```

In [3]:
```
ds_airquality=pd.read_csv("airquality.csv")
```

In [4]:
```
ds_airquality
```

Out[4]:

	Unnamed: 0	Ozone	Solar.R	Wind	Temp	Month	Day
0	1	41.0	190.0	7.4	67	5	1
1	2	36.0	118.0	8.0	72	5	2
2	3	12.0	149.0	12.6	74	5	3
3	4	18.0	313.0	11.5	62	5	4
4	5	NaN	NaN	14.3	56	5	5
...	...	...	...	...	...	...	...
148	149	30.0	193.0	6.9	70	9	26
149	150	NaN	145.0	13.2	77	9	27
150	151	14.0	191.0	14.3	75	9	28
151	152	18.0	131.0	8.0	76	9	29
152	153	20.0	223.0	11.5	68	9	30

153 rows × 7 columns

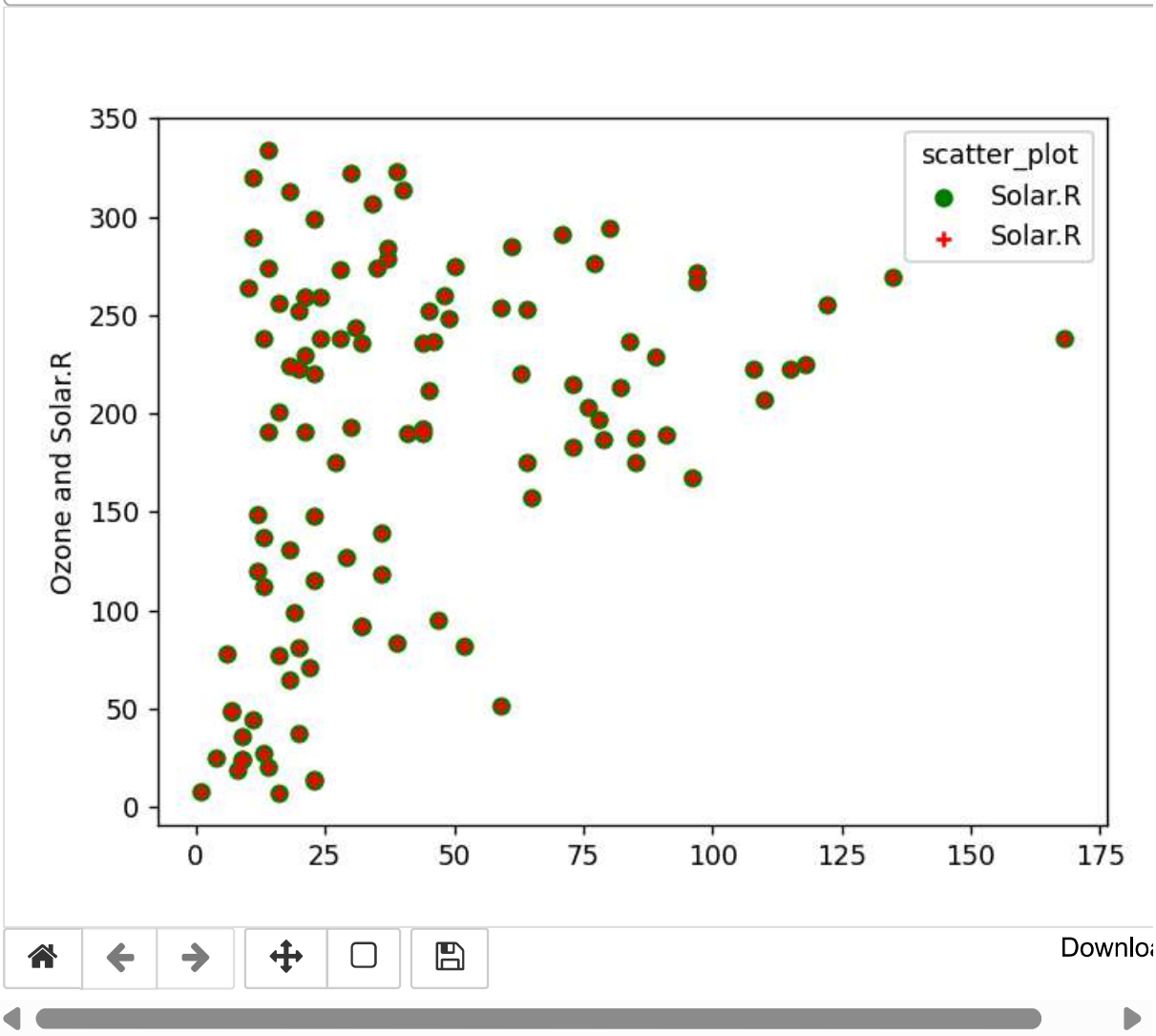
In [5]:
```
ds_airquality.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 153 entries, 0 to 152
Data columns (total 7 columns):
 #   Column      Non-Null Count  Dtype  
---  ------      --------------  -----  
 0   Unnamed: 0  153 non-null    int64  
 1   Ozone       116 non-null    float64
 2   Solar.R     146 non-null    float64
 3   Wind        153 non-null    float64
 4   Temp        153 non-null    int64  
 5   Month       153 non-null    int64  
 6   Day         153 non-null    int64  
dtypes: float64(3), int64(4)
memory usage: 8.5 KB
```

In [6]:
```
import seaborn as sns
%matplotlib notebook
```

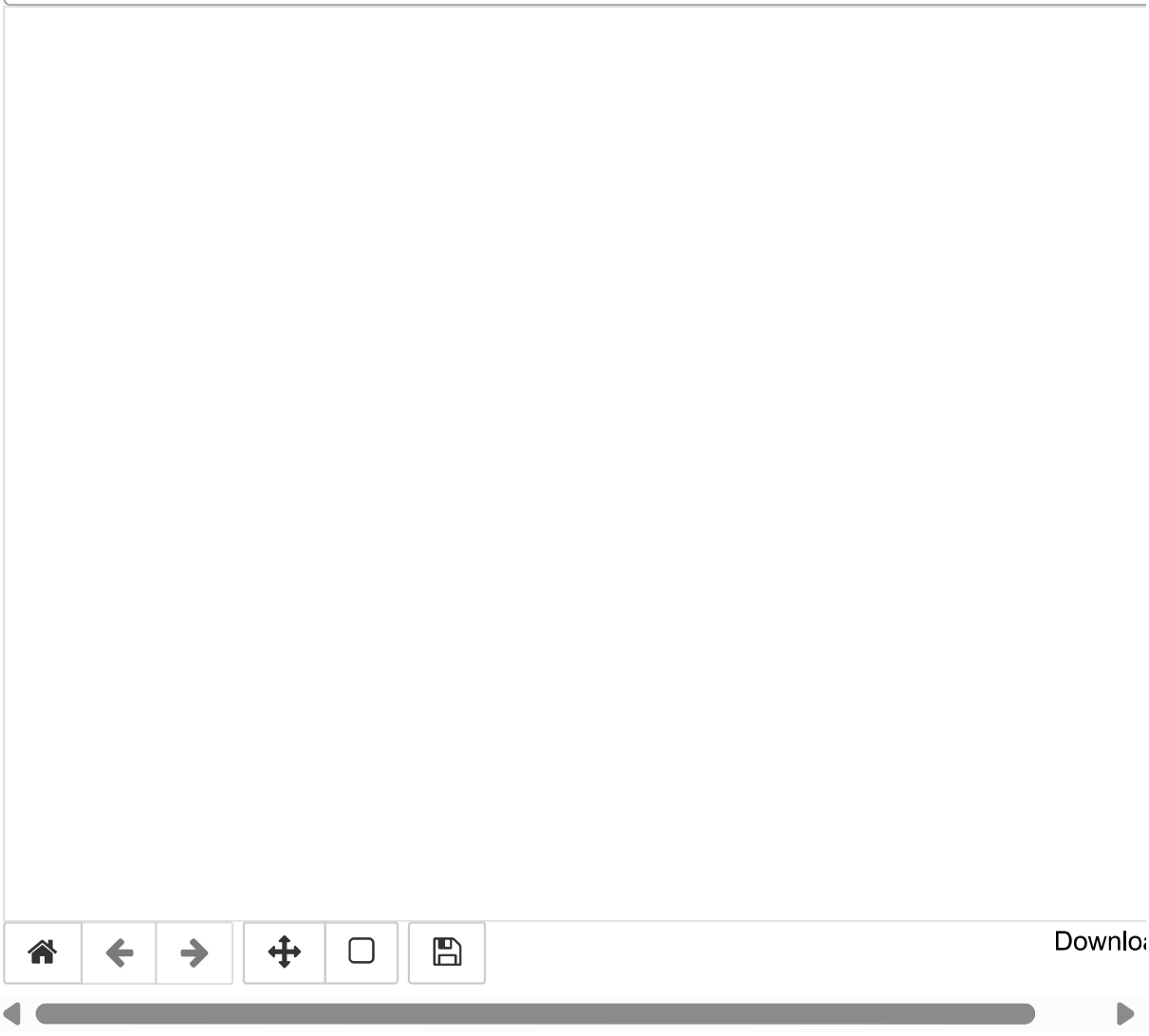
In [8]:
```
plt.scatter(x='Ozone',y='Solar.R',data=ds_airquality,c='g')
plt.scatter(x='Ozone',y='Solar.R',data=ds_airquality, c='r',marker='+')
plt.ylabel('Ozone')
plt.ylabel('Ozone and Solar.R')
plt.legend(title='scatter_plot')
plt.show()
```

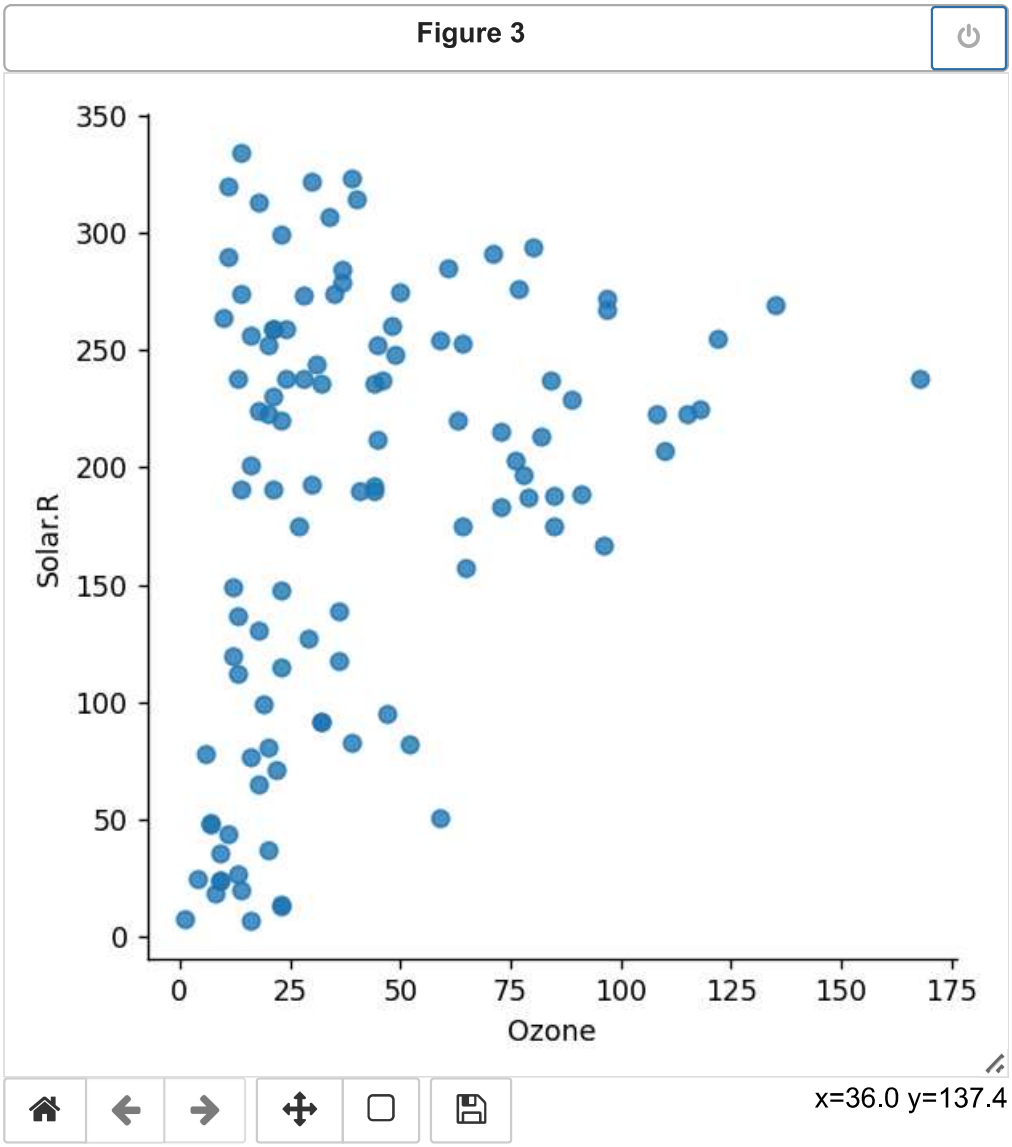
Figure 1



In [9]:
```
plt.figure()
sns.lmplot(x='Ozone' , y='Solar.R', data=ds_airquality, fit_reg=False)
```

Figure 2






```
C:\ProgramData\anaconda3\Lib\site-packages\seaborn\axisgrid.py:118: UserWarni
ng: The figure layout has changed to tight
  self._figure.tight_layout(*args, **kwargs)
```

Out[9]: <seaborn.axisgrid.FacetGrid at 0x13182642490>

In [10]:
```
plt.figure()
ds_airquality.plot(kind='hist')
```

Figure 4

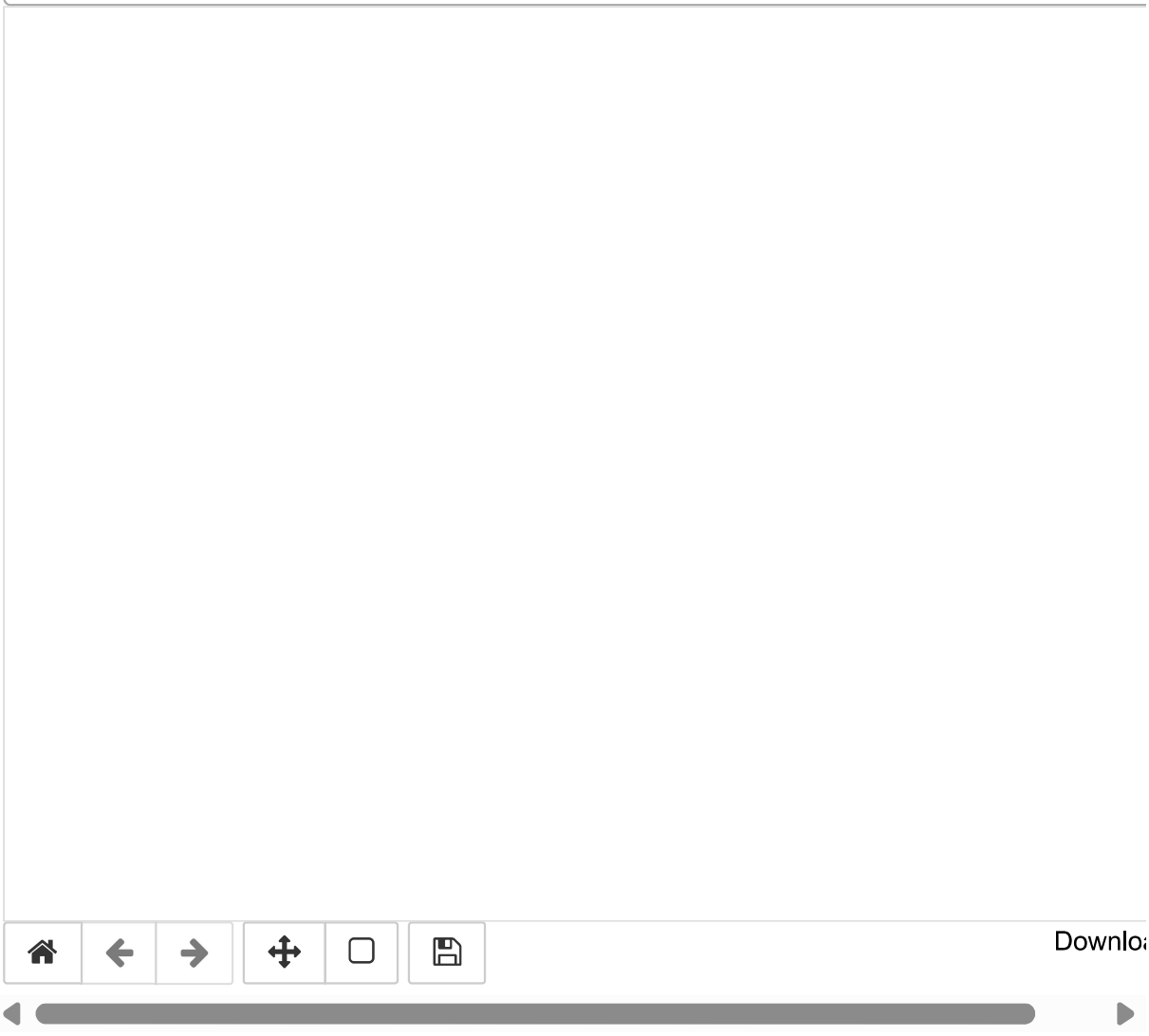
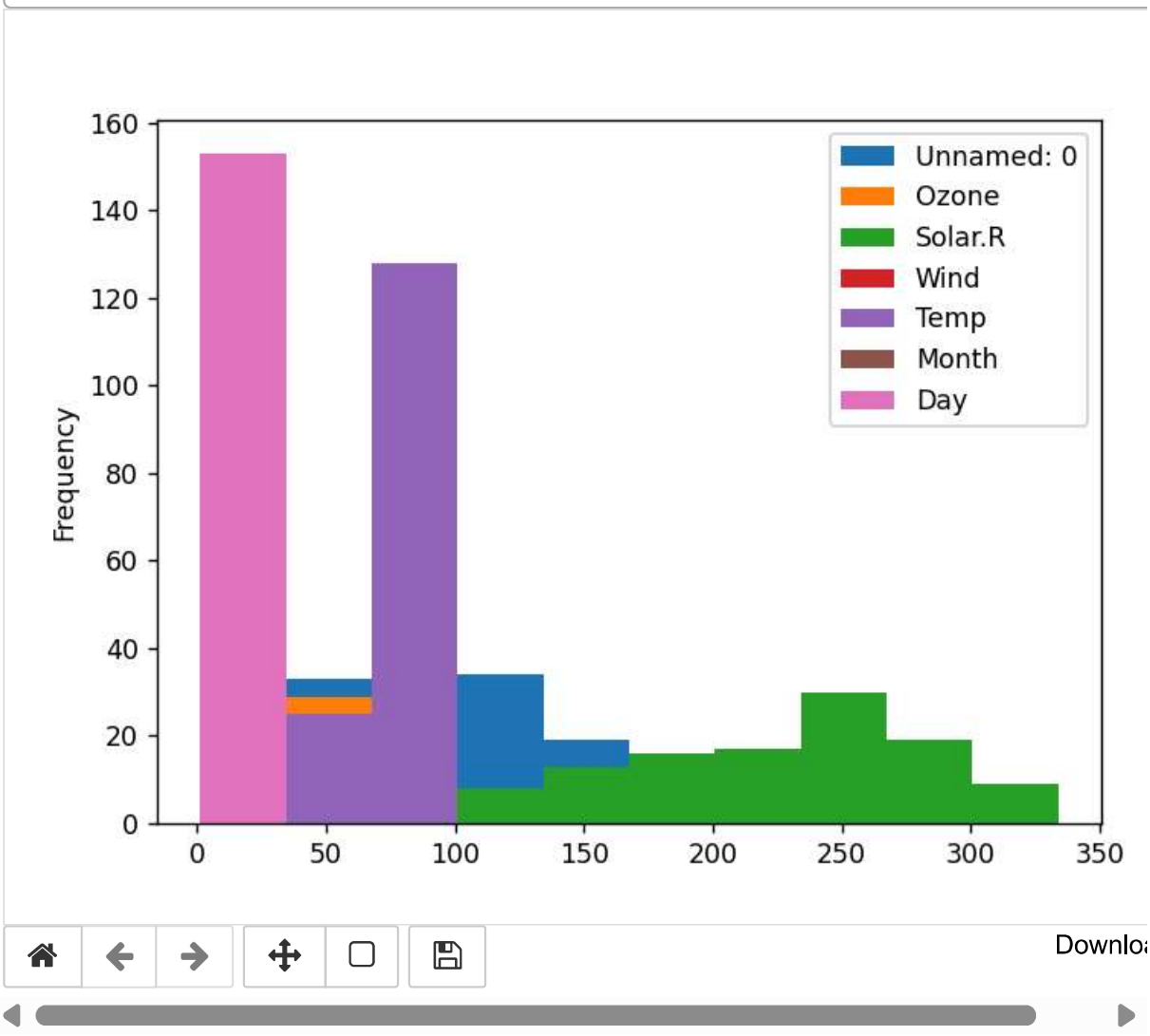


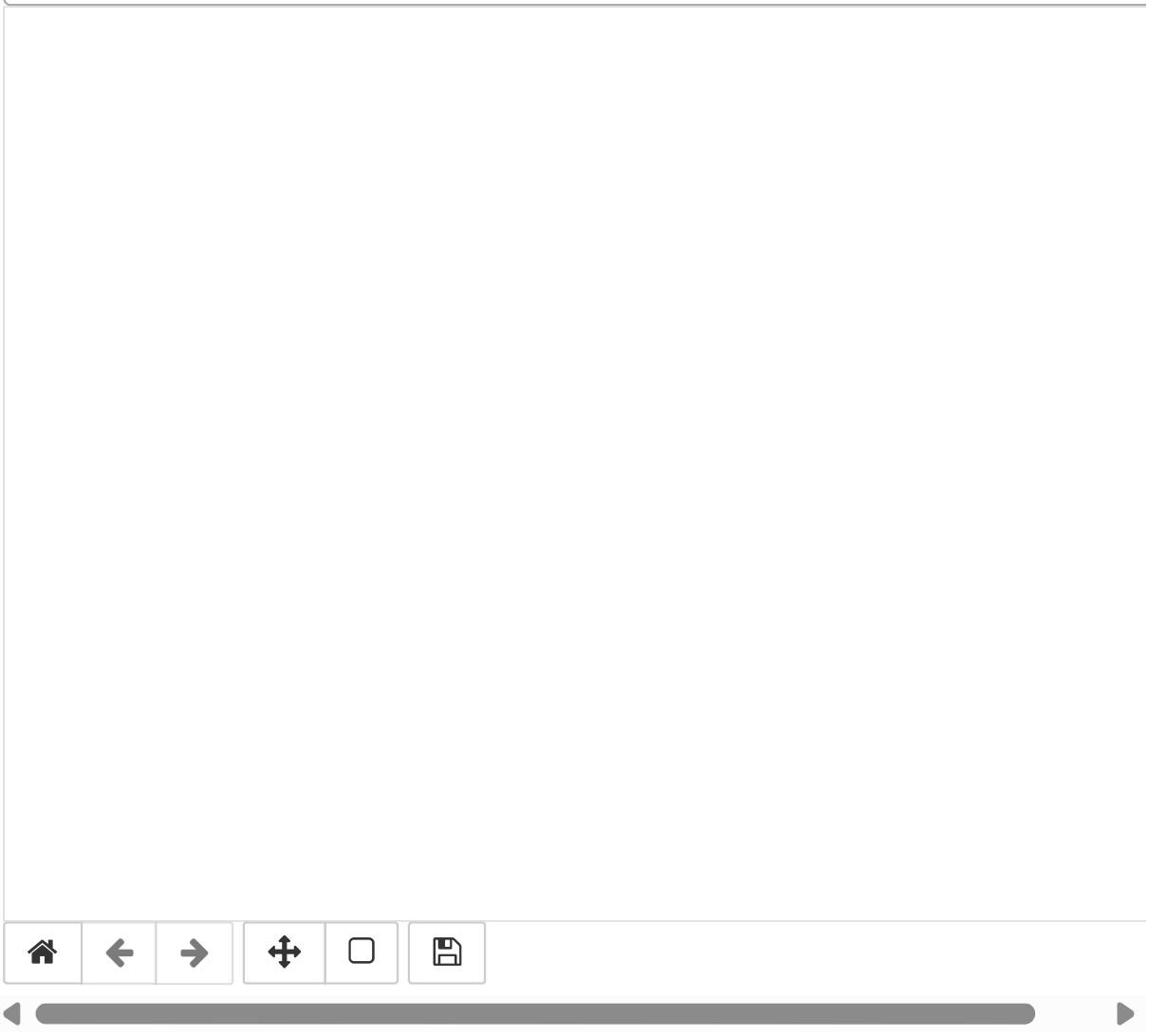
Figure 5

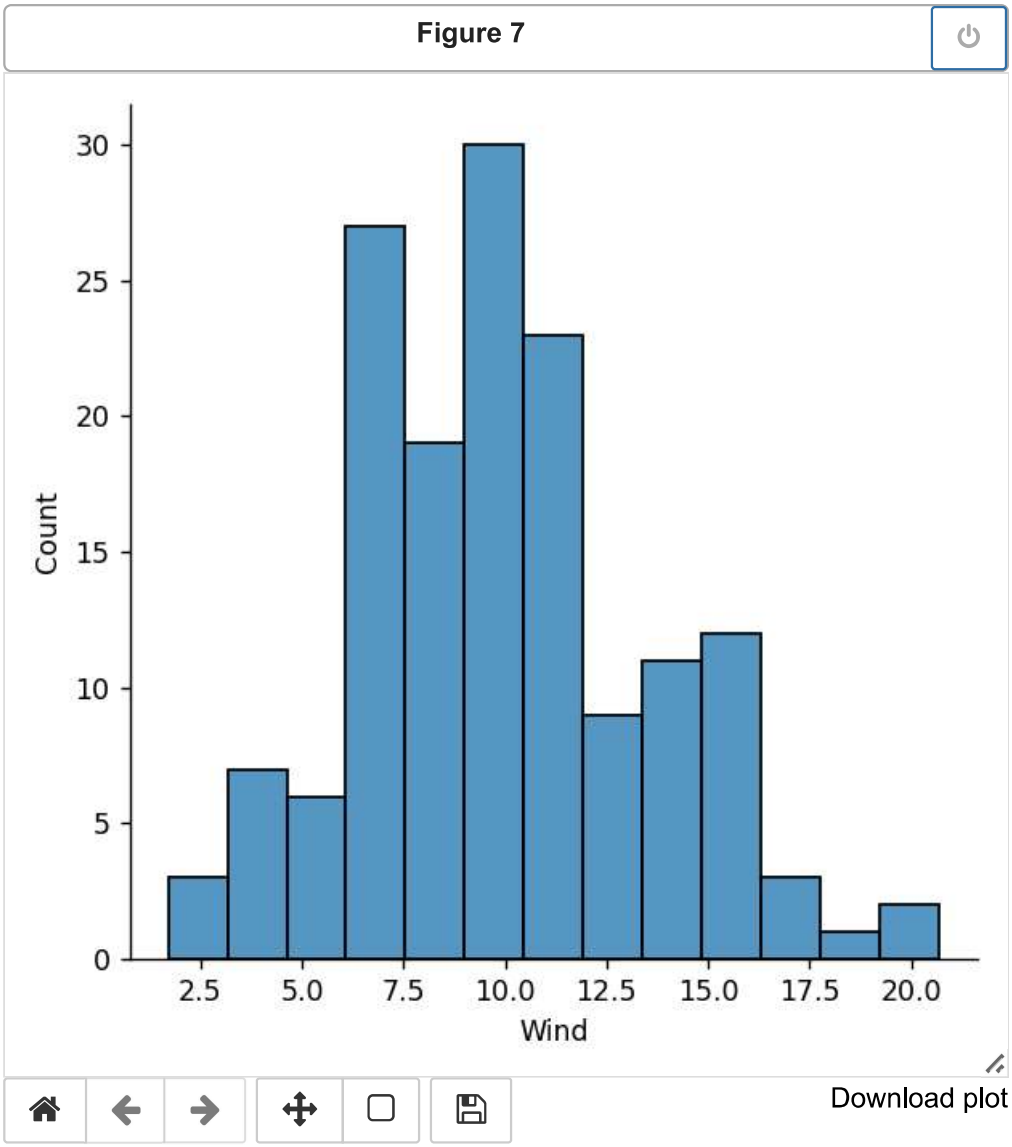


Out[10]: <Axes: ylabel='Frequency'>

In [11]:
```
plt.figure()
sns.displot(ds_airquality.Wind)
```

Figure 6



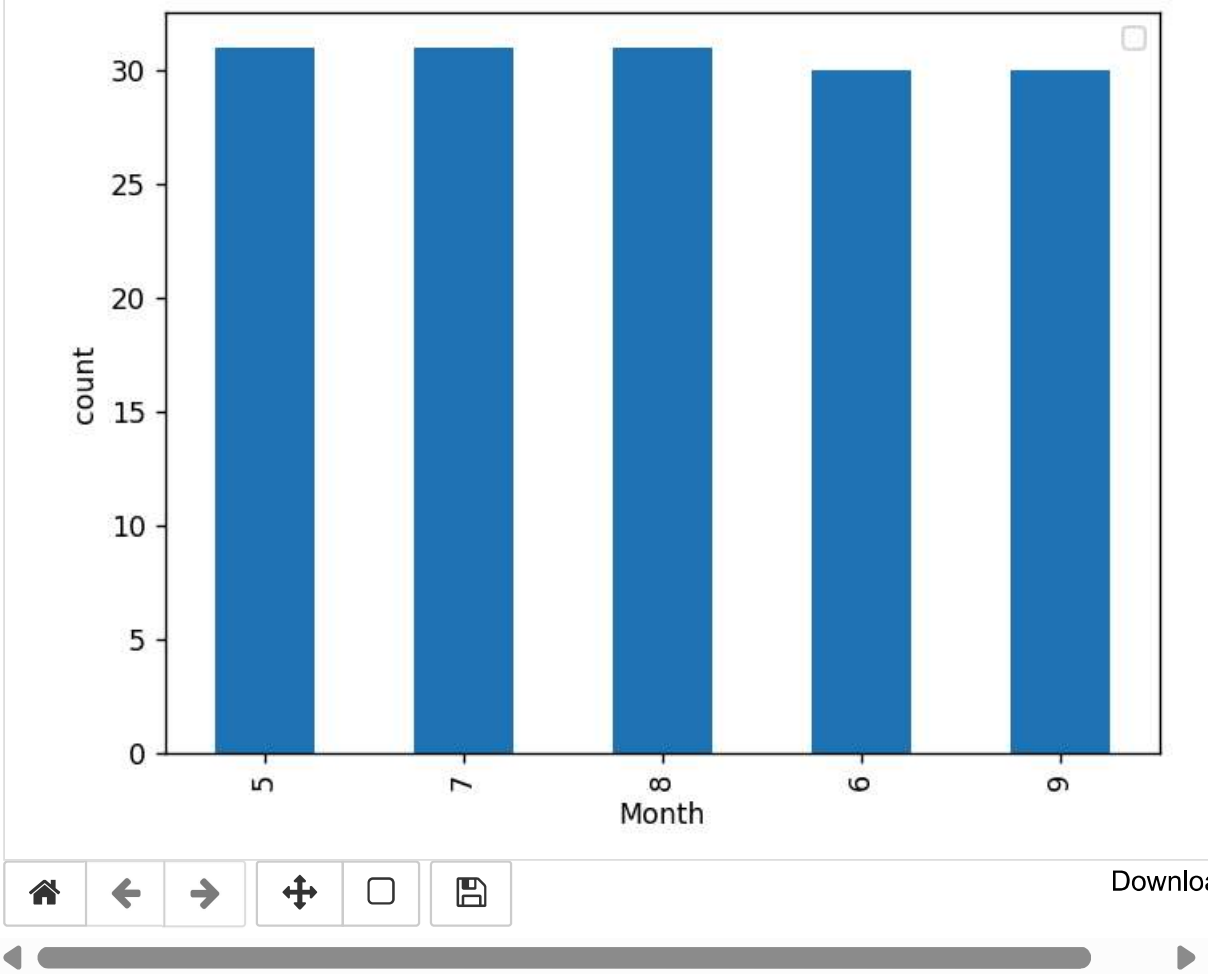



```
C:\ProgramData\anaconda3\Lib\site-packages\seaborn\axisgrid.py:118: UserWarni
ng: The figure layout has changed to tight
  self._figure.tight_layout(*args, **kwargs)
```

Out[11]: <seaborn.axisgrid.FacetGrid at 0x13181e79690>

In [12]:
```
plt.figure()
plt.xlabel('Month')
plt.ylabel('count')
plt.legend()
ds_airquality.Month.value_counts().plot(kind='bar')
```

Figure 8



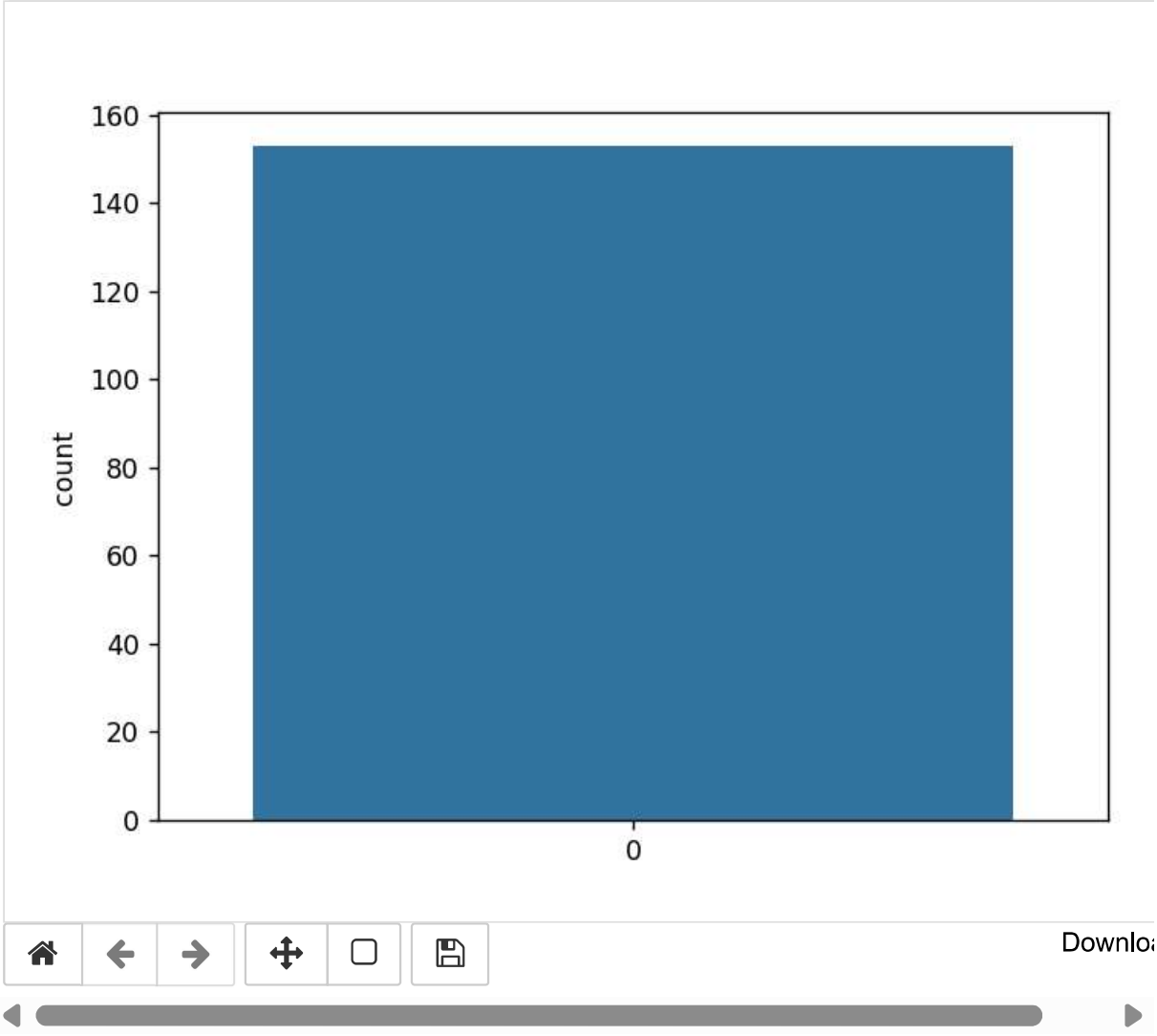
Downlo

```
No artists with labels found to put in legend.  Note that artists whose label
start with an underscore are ignored when legend() is called with no argumen
t.
```

Out[12]: <Axes: xlabel='Month', ylabel='count'>

In [18]:
```
plt.figure()
sns.countplot(ds_airquality.Month)
```

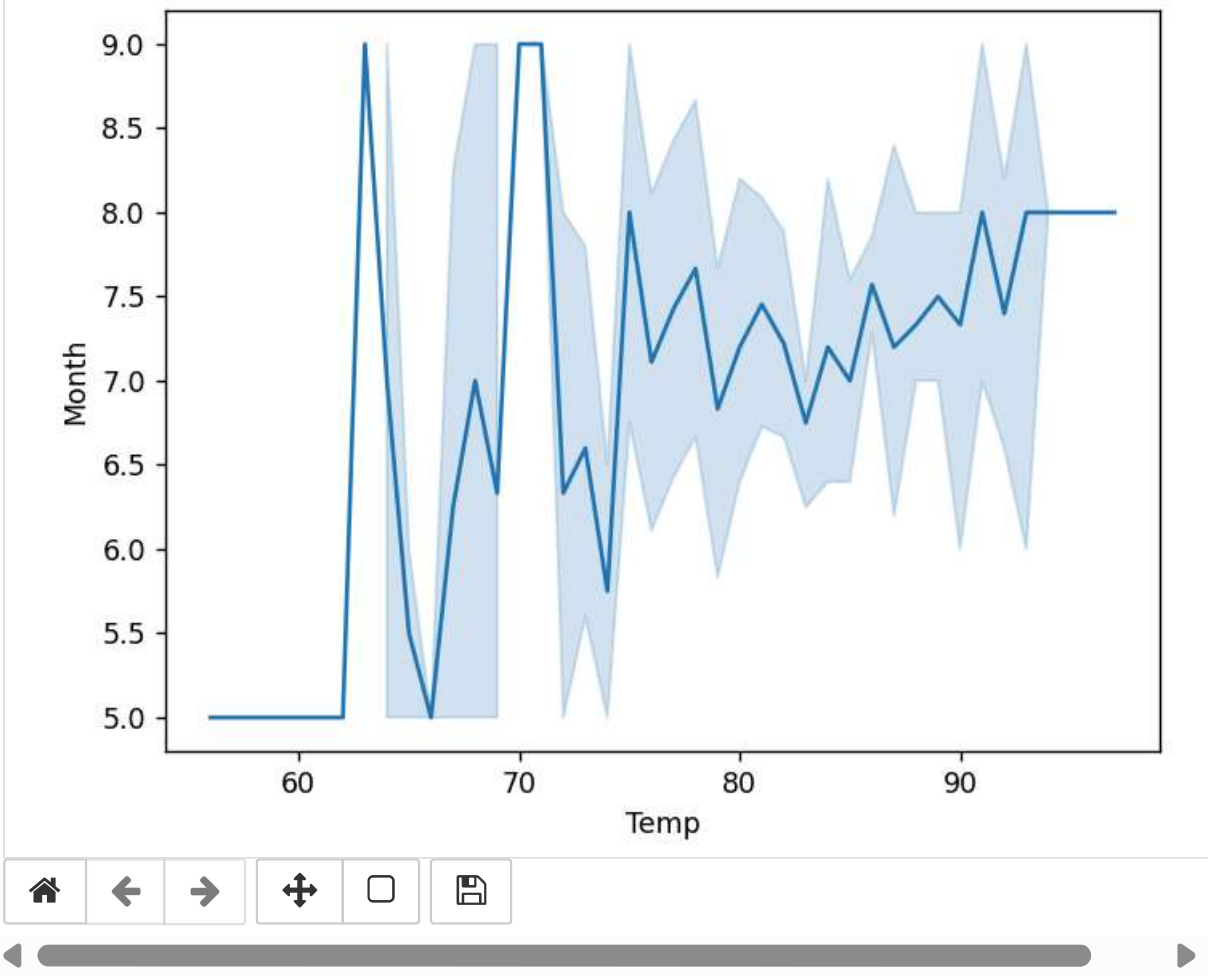
Figure 9



Out[18]:
```
<Axes: ylabel='count'>
```

In [19]:
```
plt.figure()
sns.lineplot(x='Temp', y='Month', data=ds_airquality)
```

Figure 10



Out[19]: <Axes: xlabel='Temp', ylabel='Month'>

In [ ]: