In [1]:
```
import pandas as pd
import seaborn as sns
sns.set(color_codes=True)
```

```
Matplotlib is building the font cache; this may take a moment.
```

In [21]:
```
dat = pd.read_csv('C:/Users/LENOVO/Desktop/Test.csv')
```

In [22]:
```
dat.head(10)
```

Out[22]:

| | date_time | is_holiday | air_pollution_index | humidity | wind_speed | wind_direction | visibility_in_miles | d |
|---|---|---|---|---|---|---|---|---|
| **0** | 18-05-2017 00:00 | None | 73.0 | 63.0 | 1.0 | 27.0 | 4.0 | |
| **1** | 18-05-2017 00:00 | None | 251.0 | 63.0 | 1.0 | 27.0 | 4.0 | |
| **2** | 18-05-2017 00:00 | None | 75.0 | 56.0 | 1.0 | 0.0 | 1.0 | |
| **3** | 18-05-2017 01:00 | None | 98.0 | 56.0 | 1.0 | 351.0 | 2.0 | |
| **4** | 18-05-2017 01:00 | None | 283.0 | 56.0 | 1.0 | 351.0 | 1.0 | |
| **5** | 18-05-2017 02:00 | None | 115.0 | 49.0 | 1.0 | 27.0 | 4.0 | |
| **6** | 18-05-2017 02:00 | None | 48.0 | 49.0 | 1.0 | 27.0 | 1.0 | |
| **7** | 18-05-2017 02:00 | None | 133.0 | 49.0 | 1.0 | 27.0 | 1.0 | |
| **8** | 18-05-2017 03:00 | None | 130.0 | 60.0 | 2.0 | 36.0 | 6.0 | |
| **9** | 18-05-2017 03:00 | None | 93.0 | 60.0 | 2.0 | 36.0 | 2.0 | |

In [23]:
```
dat.info
```

Out[23]:
```
<bound method DataFrame.info of              date_time is_holiday  air_pollution_index
humidity  wind_speed  \
0      18-05-2017 00:00       None                 73.0      63.0         1.0
1      18-05-2017 00:00       None                251.0      63.0         1.0
2      18-05-2017 00:00       None                 75.0      56.0         1.0
```

```
3      18-05-2017 01:00       None                98.0      56.0         1.0
4      18-05-2017 01:00       None               283.0      56.0         1.0
...                 ...        ...                 ...       ...         ...
14449              NaN        NaN                 NaN       NaN         NaN
14450              NaN        NaN                 NaN       NaN         NaN
14451              NaN        NaN                 NaN       NaN         NaN
14452              NaN        NaN                 NaN       NaN         NaN
14453              NaN        NaN                 NaN       NaN         NaN

       wind_direction  visibility_in_miles  dew_point  temperature  rain_p_h  \
0                27.0                  4.0        4.0       285.15       0.0
1                27.0                  4.0        4.0       285.15       0.0
2                 0.0                  1.0        1.0       285.15       0.0
3               351.0                  2.0        2.0       284.79       0.0
4               351.0                  1.0        1.0       284.79       0.0
...               ...                  ...        ...          ...       ...
14449             NaN                  NaN        NaN          NaN       NaN
14450             NaN                  NaN        NaN          NaN       NaN
14451             NaN                  NaN        NaN          NaN       NaN
14452             NaN                  NaN        NaN          NaN       NaN
14453             NaN                  NaN        NaN          NaN       NaN

       snow_p_h  clouds_all weather_type      weather_description
0           0.0        90.0         Rain            moderate rain
1           0.0        90.0         Mist                     mist
2           0.0        90.0      Drizzle  light intensity drizzle
3           0.0        90.0         Rain     heavy intensity rain
4           0.0        90.0         Mist                     mist
...         ...         ...          ...                      ...
14449       NaN         NaN          NaN                      NaN
14450       NaN         NaN          NaN                      NaN
14451       NaN         NaN          NaN                      NaN
14452       NaN         NaN          NaN                      NaN
14453       NaN         NaN          NaN                      NaN

[14454 rows x 14 columns]>
```

In [24]:
```
dat.shape
```

Out[24]:
```
(14454, 14)
```

In [25]:
```
dat.describe
```

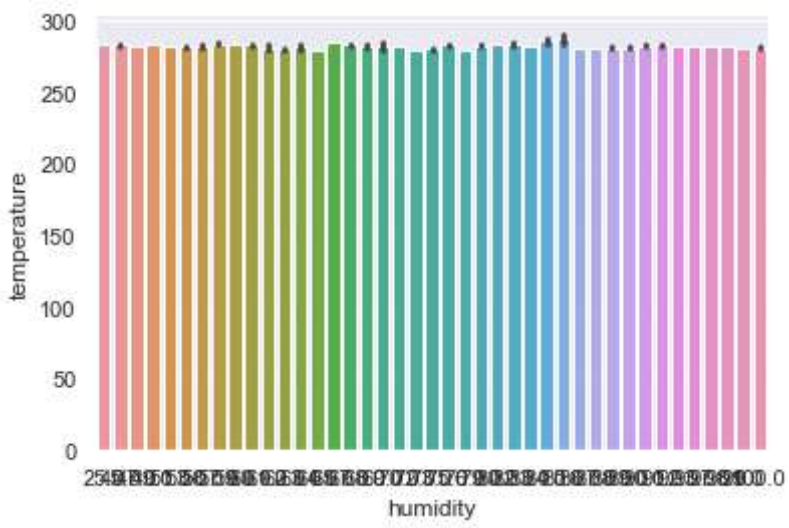
Out[25]:
```
<bound method NDFrame.describe of              date_time is_holiday  air_pollution_inde
x  humidity  wind_speed  \
0      18-05-2017 00:00       None                73.0      63.0         1.0
1      18-05-2017 00:00       None               251.0      63.0         1.0
2      18-05-2017 00:00       None                75.0      56.0         1.0
3      18-05-2017 01:00       None                98.0      56.0         1.0
4      18-05-2017 01:00       None               283.0      56.0         1.0
...                 ...        ...                 ...       ...         ...
14449              NaN        NaN                 NaN       NaN         NaN
14450              NaN        NaN                 NaN       NaN         NaN
14451              NaN        NaN                 NaN       NaN         NaN
14452              NaN        NaN                 NaN       NaN         NaN
14453              NaN        NaN                 NaN       NaN         NaN

       wind_direction  visibility_in_miles  dew_point  temperature  rain_p_h  \
0                27.0                  4.0        4.0       285.15       0.0
1                27.0                  4.0        4.0       285.15       0.0
2                 0.0                  1.0        1.0       285.15       0.0
3               351.0                  2.0        2.0       284.79       0.0
4               351.0                  1.0        1.0       284.79       0.0
...               ...                  ...        ...          ...       ...
```

```
14449            NaN                 NaN        NaN          NaN       NaN
14450            NaN                 NaN        NaN          NaN       NaN
14451            NaN                 NaN        NaN          NaN       NaN
14452            NaN                 NaN        NaN          NaN       NaN
14453            NaN                 NaN        NaN          NaN       NaN

       snow_p_h  clouds_all weather_type      weather_description
0           0.0        90.0         Rain            moderate rain
1           0.0        90.0         Mist                     mist
2           0.0        90.0      Drizzle  light intensity drizzle
3           0.0        90.0         Rain     heavy intensity rain
4           0.0        90.0         Mist                     mist
...         ...         ...          ...                      ...
14449       NaN         NaN          NaN                      NaN
14450       NaN         NaN          NaN                      NaN
14451       NaN         NaN          NaN                      NaN
14452       NaN         NaN          NaN                      NaN
14453       NaN         NaN          NaN                      NaN

[14454 rows x 14 columns]>
```

In [28]:
```
sns.barplot(dat['humidity'], dat['temperature'])
```

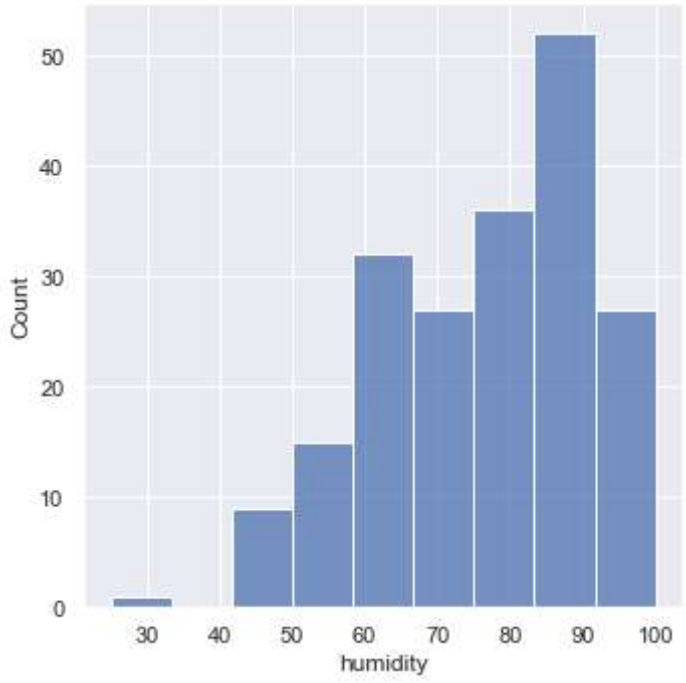
```
C:\Users\LENOVO\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pa
ss the following variables as keyword args: x, y. From version 0.12, the only valid posi
tional argument will be `data`, and passing other arguments without an explicit keyword
will result in an error or misinterpretation.
  warnings.warn(
```

Out[28]: <AxesSubplot:xlabel='humidity', ylabel='temperature'>

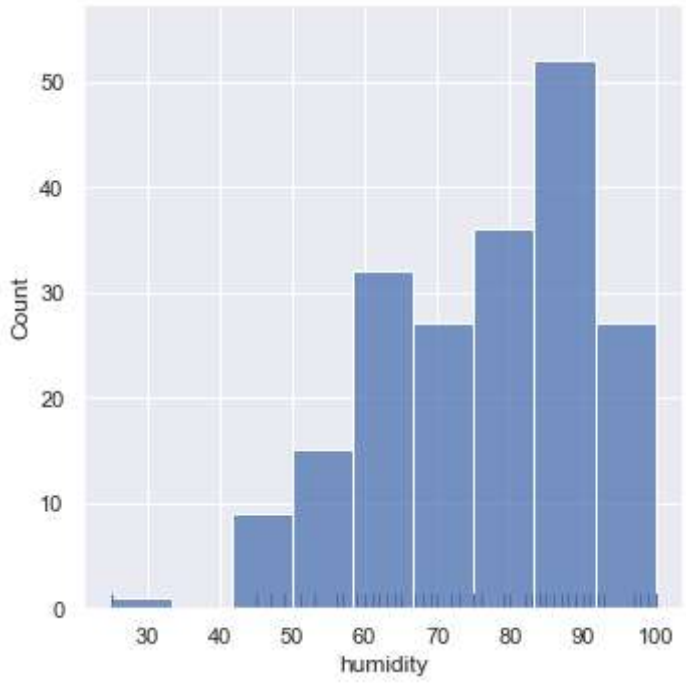



In [29]:
```
sns.displot(dat['humidity'])
```

Out[29]: <seaborn.axisgrid.FacetGrid at 0xf311628>



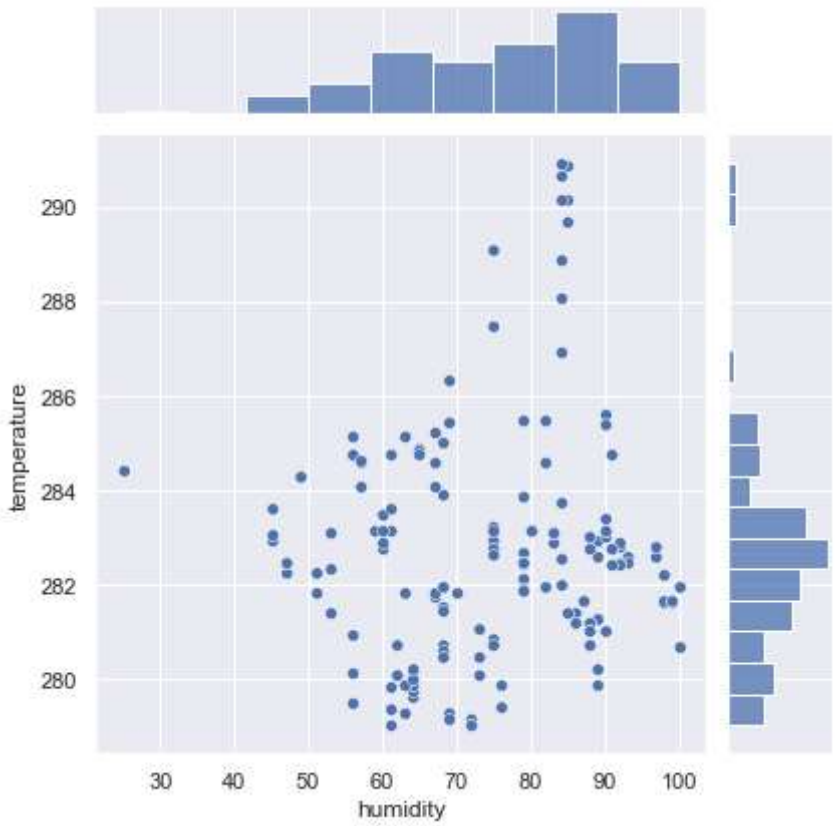

In [30]:
```
sns.displot(dat['humidity'], kde=False, rug=True);
```




In [31]:
```
sns.jointplot(dat['humidity'], dat['temperature'])
```

```
C:\Users\LENOVO\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pa
ss the following variables as keyword args: x, y. From version 0.12, the only valid posi
tional argument will be `data`, and passing other arguments without an explicit keyword
will result in an error or misinterpretation.
  warnings.warn(
```

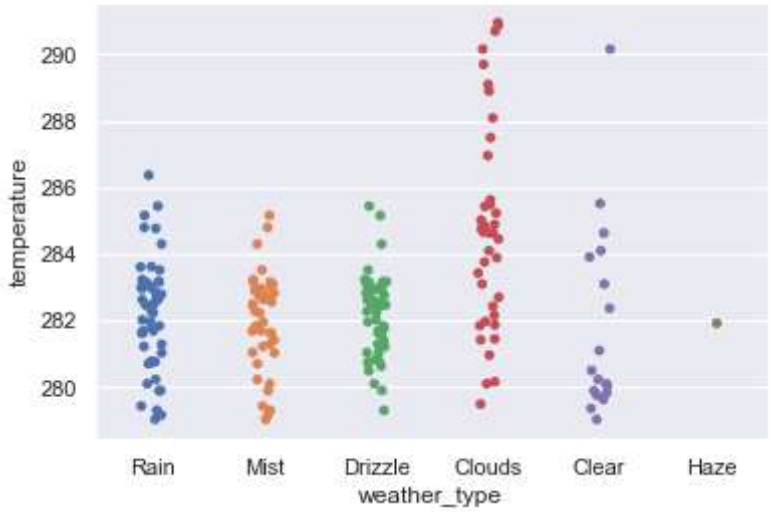
Out[31]: <seaborn.axisgrid.JointGrid at 0xf455fb8>




In [32]:
```
sns.stripplot(dat['weather_type'], dat['temperature'])
```

```
C:\Users\LENOVO\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pa
ss the following variables as keyword args: x, y. From version 0.12, the only valid posi
tional argument will be `data`, and passing other arguments without an explicit keyword
will result in an error or misinterpretation.
  warnings.warn(
```

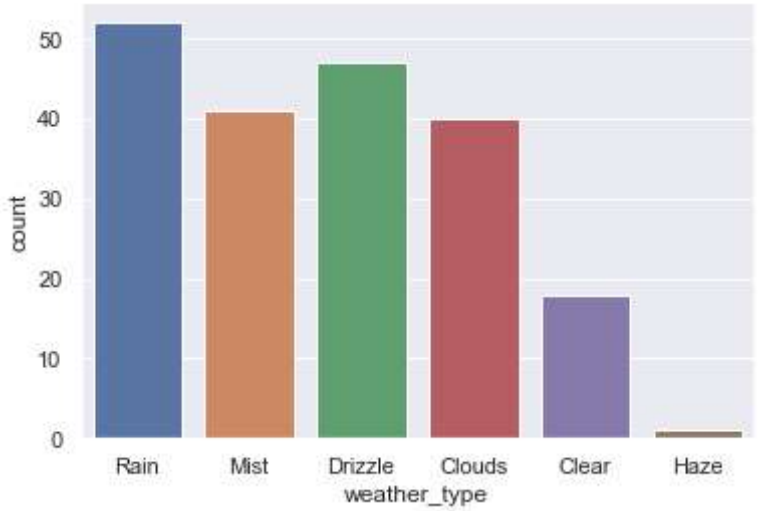
Out[32]: <AxesSubplot:xlabel='weather_type', ylabel='temperature'>




In [33]:
```
sns.countplot(dat['weather_type'])
```

```
C:\Users\LENOVO\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pa
ss the following variable as a keyword arg: x. From version 0.12, the only valid positio
nal argument will be `data`, and passing other arguments without an explicit keyword wil
l result in an error or misinterpretation.
  warnings.warn(
```

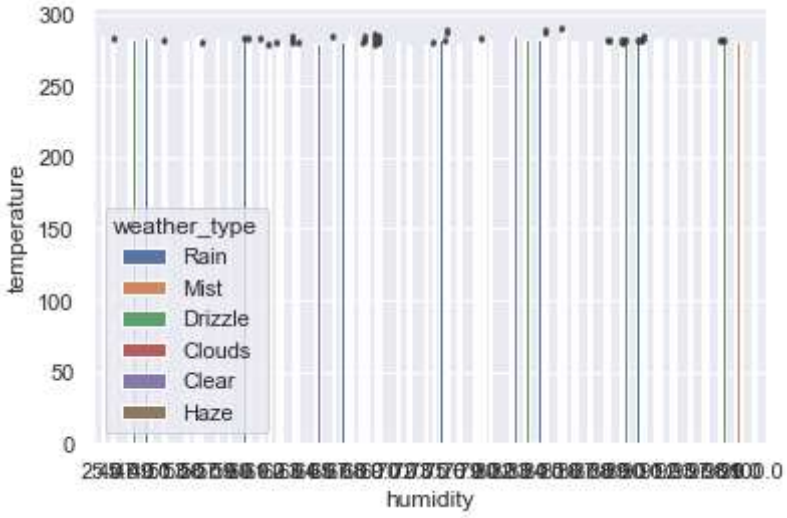
Out[33]: <AxesSubplot:xlabel='weather_type', ylabel='count'>




In [34]:
```
sns.barplot(dat['humidity'], dat['temperature'], hue=dat['weather_type'])
```

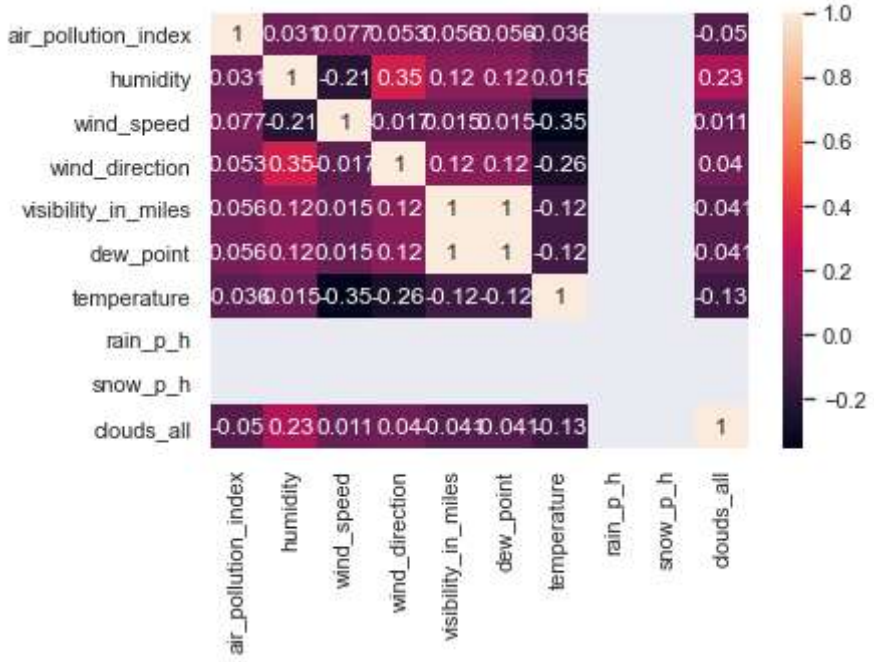
```
C:\Users\LENOVO\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pa
ss the following variables as keyword args: x, y. From version 0.12, the only valid posi
tional argument will be `data`, and passing other arguments without an explicit keyword
will result in an error or misinterpretation.
  warnings.warn(
```

Out[34]: <AxesSubplot:xlabel='humidity', ylabel='temperature'>



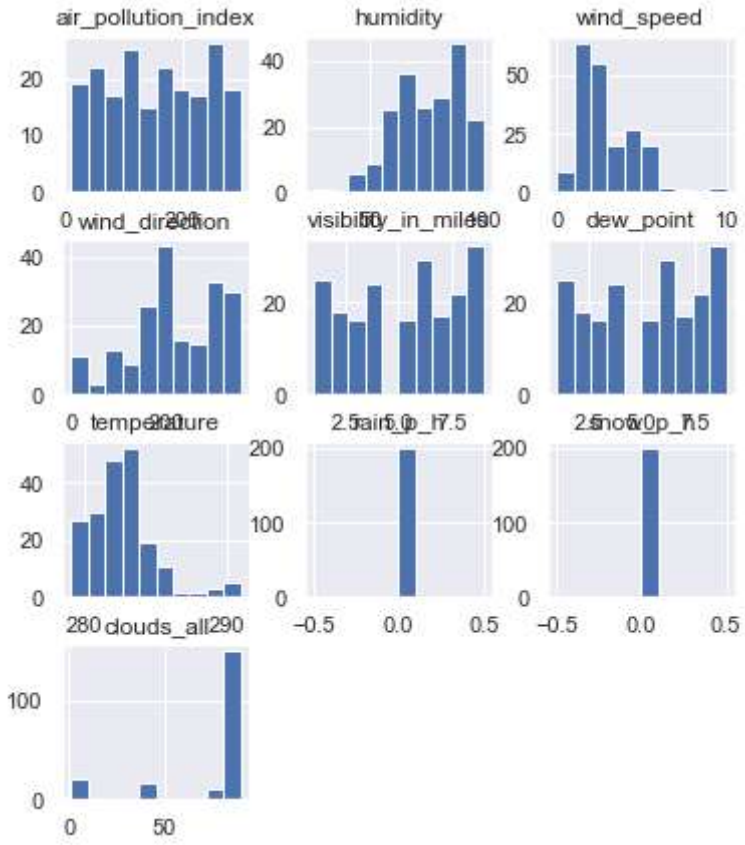

In [35]:
```
sns.heatmap(dat.corr(),annot=True)
```

Out[35]: <AxesSubplot:>



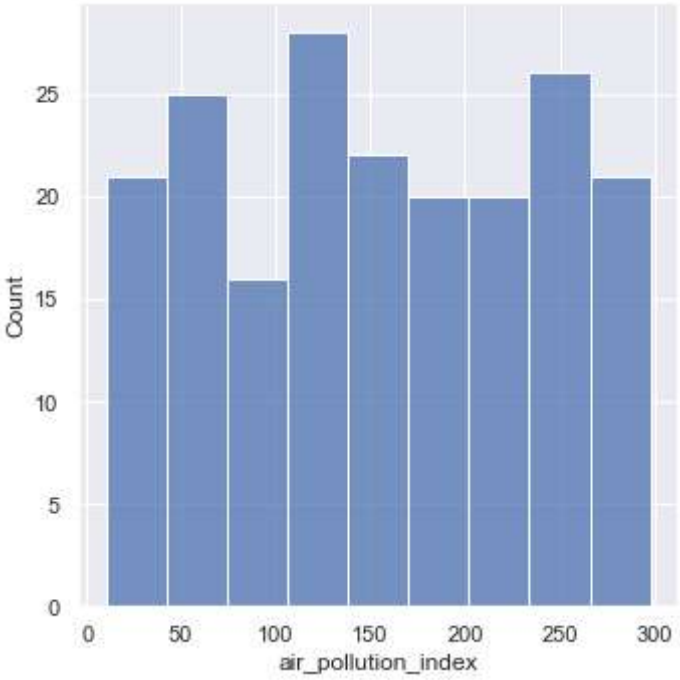

In [36]:
```
dat.hist(figsize=(6,7))
```

Out[36]:
```
array([[<AxesSubplot:title={'center':'air_pollution_index'}>,
        <AxesSubplot:title={'center':'humidity'}>,
        <AxesSubplot:title={'center':'wind_speed'}>],
       [<AxesSubplot:title={'center':'wind_direction'}>,
        <AxesSubplot:title={'center':'visibility_in_miles'}>,
        <AxesSubplot:title={'center':'dew_point'}>],
       [<AxesSubplot:title={'center':'temperature'}>,
        <AxesSubplot:title={'center':'rain_p_h'}>,
        <AxesSubplot:title={'center':'snow_p_h'}>],
       [<AxesSubplot:title={'center':'clouds_all'}>, <AxesSubplot:>,
        <AxesSubplot:>]], dtype=object)
```




In [37]:
```
sns.displot(dat['air_pollution_index'])
```

Out[37]: <seaborn.axisgrid.FacetGrid at 0xeb54c88>

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