

```
In [7]: import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt
```

Out [9]:														
	date_time	is_holiday	air_pollution_index	humidity	wind_speed	wind_direction	visibility_in_miles	dew_point	temperature	rain_p_h	snow_p_h	clouds_all	weather_type	weather_description
0	18-05-2017 00:00	None	73.0	63.0	1.0	27.0	4.0	4.0	285.15	0.0	0.0	90.0	Rain	moderate rain
1	18-05-2017 00:00	None	251.0	63.0	1.0	27.0	4.0	4.0	285.15	0.0	0.0	90.0	Mist	mist
2	18-05-2017 00:00	None	75.0	56.0	1.0	0.0	1.0	1.0	285.15	0.0	0.0	90.0	Drizzle	light intensity drizzle
3	18-05-2017 01:00	None	98.0	56.0	1.0	351.0	2.0	2.0	284.79	0.0	0.0	90.0	Rain	heavy intensity rain
4	18-05-2017 01:00	None	283.0	56.0	1.0	351.0	1.0	1.0	284.79	0.0	0.0	90.0	Mist	mist

```

In [10]: weather.info()

<class 'pandas.core.frame.DataFrame'>
RangeIndex: 14454 entries, 0 to 14453
Data columns (total 14 columns):
#   Column              Non-Null Count  Dtype  
---  --
0   date_time           199 non-null   object  
1   is_holiday          199 non-null   object  
2   air_pollution_index 199 non-null   float64  
3   humidity             199 non-null   float64  
4   wind_speed          199 non-null   float64  
5   wind_direction       199 non-null   float64  
6   visibility_in_miles  199 non-null   float64  
7   dew_point           199 non-null   float64  
8   temperature          199 non-null   float64  
9   rain_p_h             199 non-null   float64  
10  snow_p_h             199 non-null   float64  
11  clouds_all           199 non-null   float64  
12  weather_type         199 non-null   object  
13  weather_description  199 non-null   object  
dtypes: float64(10), object(4)
memory usage: 1.5+ Mb

In [11]: plt.figure(figsize=(20, 4))
sns.barplot(xs='humidity', y='temperature', data=weather)

```

```
Out[11]: <AxesSubplot: xlabel='humidity', ylabel='temperature'>
```

Year	Number of publications
1990	250
1991	250
1992	250
1993	250
1994	250
1995	250
1996	250
1997	250
1998	250
1999	250
2000	250
2001	250
2002	250
2003	250
2004	250
2005	250
2006	250
2007	250
2008	250
2009	250
2010	250
2011	250
2012	250
2013	250
2014	250
2015	250
2016	250
2017	250
2018	250
2019	250
2020	250

Time Period	Percentage of respondents who believe that the current situation is a crisis
Before the outbreak	~85%
First week of the outbreak	~85%
Second week of the outbreak	~85%
Third week of the outbreak	~85%
Fourth week of the outbreak	~85%
Fifth week of the outbreak	~85%
Sixth week of the outbreak	~85%
Seventh week of the outbreak	~85%
Eighth week of the outbreak	~85%
Ninth week of the outbreak	~85%
Tenth week of the outbreak	~85%
Eleventh week of the outbreak	~85%
Twelfth week of the outbreak	~85%
Thirteenth week of the outbreak	~85%
Fourteenth week of the outbreak	~85%
Fifteenth week of the outbreak	~85%
Sixteenth week of the outbreak	~85%
Seventeenth week of the outbreak	~85%
Eighteenth week of the outbreak	~85%
Nineteenth week of the outbreak	~85%
Twentieth week of the outbreak	~85%
Twenty-first week of the outbreak	~85%
Twenty-second week of the outbreak	~85%
Twenty-third week of the outbreak	~85%
Twenty-fourth week of the outbreak	~85%
Twenty-fifth week of the outbreak	~85%
Twenty-sixth week of the outbreak	~85%
Twenty-seventh week of the outbreak	~85%
Twenty-eighth week of the outbreak	~85%
Twenty-ninth week of the outbreak	~85%
Thirtieth week of the outbreak	~85%
Thirty-first week of the outbreak	~85%
Thirty-second week of the outbreak	~85%
Thirty-third week of the outbreak	~85%
Thirty-fourth week of the outbreak	~85%
Thirty-fifth week of the outbreak	~85%
Thirty-sixth week of the outbreak	~85%
Thirty-seventh week of the outbreak	~85%
Thirty-eighth week of the outbreak	~85%
Thirty-ninth week of the outbreak	~85%
Fortieth week of the outbreak	~85%
Forty-first week of the outbreak	~85%
Forty-second week of the outbreak	~85%
Forty-third week of the outbreak	~85%
Forty-fourth week of the outbreak	~85%
Forty-fifth week of the outbreak	~85%
Forty-sixth week of the outbreak	~85%
Forty-seventh week of the outbreak	~85%
Forty-eighth week of the outbreak	~85%
Forty-ninth week of the outbreak	~85%
Fiftieth week of the outbreak	~85%

```

In [23]: sns.displot(weather["humidity"], kde=True)

Out[23]: <seaborn.axisgrid.FacetGrid at 0x1a132e6b2e0>

```

A histogram showing the distribution of the number of children per family. The x-axis is labeled 'Number of children' and ranges from 0 to 10. The y-axis is labeled 'Count' and ranges from 0 to 30. The bars are blue. A smooth, dark blue curve is overlaid on the histogram, representing a normal distribution fit. The distribution is roughly bell-shaped, centered around 4 children.


Number of children	Count
0	1
1	9
2	13
3	31
4	29
5	32
6	28

```
sns.distplot(weather['humidity'], kde=True, rug=True),
```

[illegible]

```
In [24]: sns.jointplot(data=weather, x='humidity', y='temperature')

Out[24]: <seaborn.axisgrid.JointGrid at 0x1a32e42970>
```



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```
In [25]: sns.jointplot(data=weather, x='humidity', y='temperature', kind="hex")

Out[25]: <seaborn.axisgrid.JointGrid at 0x1a132ec68e0>
```

Figure 206

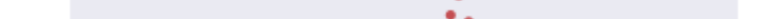
```
sns.jointplot(data=weather, x='humidity', y='temperature', kind="kde")
```

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Figure 1 displays the distribution of temperature and resolution index for different climate models. The top row shows temperature (K) for GISS-ER, GISS-ER-H, GISS-ER-L, and GISS-ER-M. The bottom row shows resolution index for GISS-ER, GISS-ER-H, GISS-ER-L, and GISS-ER-M. Each plot includes a scatter plot of data points and a histogram of the distribution.

```
In [28]: sns.stripplot(x=weather['weather_type'], y=weather['temperature'])
```


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



```
In [29]: sns.stripplot(x=weather['weather_type'], y=weather['temperature'], jitter = True)
```

```
sns.swarmplot(x=weather['humidity'], y=weather['temperature'])
```

Out[39]: <AxesSubplot:xlabel='humidity', ylabel='temperature'>



The plot displays temperature on the y-axis (ranging from 20 to 28) against humidity on the x-axis (ranging from 0 to 1.0). The data points are colored by humidity level, showing a general trend where temperature increases as humidity increases, particularly for higher humidity values.