

```
In [7]: #import required modules

In [18]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

In [13]: #assign axis value

In [20]: data=pd.read_csv("C:\\Users\\intec\\OneDrive\\Desktop\\weatherAUS.csv")
```

1.Data.corr

```
In [21]: data.corr()

Out[21]:
```

	MinTemp	MaxTemp	Rainfall	Evaporation	Sunshine	WindGustSpeed	WindSpeed9am	WindSpeed3pm	Humidity9am	Humidity3pm	Pressure9am	Pressure3pm	Cloud
MinTemp	1.000000	0.736267	0.104255	0.467261	0.072961	0.177285	0.176005	0.175749	-0.234211	0.005999	-0.451260	-0.461623	0.07
MaxTemp	0.736267	1.000000	-0.074839	0.588915	0.469967	0.067690	0.014680	0.050800	-0.505432	-0.509270	-0.332293	-0.427279	-0.28
Rainfall	0.104255	-0.074839	1.000000	-0.064549	-0.227525	0.133497	0.086816	0.057759	0.223725	0.255312	-0.168085	-0.126728	0.19
Evaporation	0.467261	0.588915	-0.064549	1.000000	0.366607	0.203001	0.193936	0.128895	-0.505890	-0.392785	-0.269907	-0.293160	-0.18
Sunshine	0.072961	0.469967	-0.227525	0.366607	1.000000	-0.032831	0.008040	0.056012	-0.491603	-0.629122	0.040959	-0.020464	-0.67
WindGustSpeed	0.177285	0.067690	0.133497	0.203001	-0.032831	1.000000	0.604837	0.686419	-0.215461	-0.026663	-0.457891	-0.412922	0.07
WindSpeed9am	0.176005	0.014680	0.086816	0.193936	0.008040	0.604837	1.000000	0.519971	-0.270807	-0.031607	-0.227923	-0.174916	0.02
WindSpeed3pm	0.175749	0.050800	0.057759	0.128895	0.056012	0.686419	0.519971	1.000000	-0.145942	0.015903	-0.295567	-0.254988	0.05
Humidity9am	-0.234211	-0.505432	0.223725	-0.505890	-0.491603	-0.215461	-0.270807	-0.145942	1.000000	0.667388	0.139519	0.186955	0.45
Humidity3pm	0.005999	-0.509270	0.255312	-0.392785	-0.629122	-0.026663	-0.031607	0.015903	0.667388	1.000000	-0.027449	0.051840	0.51
Pressure9am	-0.451260	-0.332293	-0.168085	-0.269907	0.040959	-0.457891	-0.227923	-0.295567	0.139519	-0.027449	1.000000	0.961348	-0.13
Pressure3pm	-0.461623	-0.427279	-0.126728	-0.293160	-0.020464	-0.412922	-0.174916	-0.254988	0.186955	0.051840	0.961348	1.000000	-0.06
Cloud9am	0.077625	-0.289865	0.198195	-0.185032	-0.675610	0.071235	0.024280	0.052780	0.452182	0.517037	-0.130081	-0.061152	1.00
Cloud3pm	0.020489	-0.279053	0.171993	-0.184287	-0.704202	0.109088	0.053584	0.025269	0.358043	0.523270	-0.148139	-0.084963	0.60
Temp9am	0.901813	0.887020	0.011477	0.545497	0.291139	0.150258	0.129298	0.163601	-0.472826	-0.221467	-0.422773	-0.470325	-0.13
Temp3pm	0.708865	0.984562	-0.079178	0.574275	0.490180	0.032970	0.005108	0.028567	-0.499777	-0.557989	-0.287301	-0.389863	-0.30
RISK_MM	0.124743	-0.044208	0.308557	-0.043498	-0.294973	0.162923	0.069404	0.049240	0.172417	0.313183	-0.163673	-0.164184	0.19

2.Heat map

```
In [22]: cor=data.corr()

In [23]: sns.heatmap(data=cor,xticklabels=cor.columns.values,yticklabels=cor.columns.values)

Out[23]: <AxesSubplot:~>
```

3.Box plot

```
In [25]: data.boxplot()

Out[25]: <AxesSubplot:~>
```

4.Joint plot

```
In [35]: sns.jointplot(data["MinTemp"],data['Rainfall'])

C:\Users\intec\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. From versi
on 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misi
nterpretation.
  warnings.warn(

Out[35]: <seaborn.axisgrid.JointGrid at 0x1fabacc62e0>
```

Joint plot with hue function

```
In [4]: import pandas as pd
import numpy as np
import matplotlib.pyplot as plt
import seaborn as sns

In [6]: data=pd.read_csv("C:\\Users\\intec\\OneDrive\\Desktop\\weatherAUS.csv")

In [7]: sns.jointplot(data['MaxTemp'],data['Rainfall'],hue=data['RainTomorrow'])

C:\Users\intec\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. From versi
on 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misi
nterpretation.
  warnings.warn(

Out[7]: <seaborn.axisgrid.JointGrid at 0x1c2ad81aa60>
```

5.Hist plot

```
In [8]: sns.histplot(data['RainTomorrow'])

Out[8]: <AxesSubplot:xlabel='RainTomorrow', ylabel='Count'>
```

6.Scatter plot

```
In [9]: sns.scatterplot(data['MaxTemp'],data['Rainfall'])

C:\Users\intec\anaconda3\lib\site-packages\seaborn\_decorators.py:36: FutureWarning: Pass the following variables as keyword args: x, y. From versi
on 0.12, the only valid positional argument will be `data`, and passing other arguments without an explicit keyword will result in an error or misi
nterpretation.
  warnings.warn(

Out[9]: <AxesSubplot:xlabel='MaxTemp', ylabel='Rainfall'>
```

7.Distplot or distribution plot

```
In [10]: sns.distplot(data['MinTemp'])

C:\Users\intec\anaconda3\lib\site-packages\seaborn\distributions.py:2557: FutureWarning: `distplot` is a deprecated function and will be removed in
a future version. Please adapt your code to use either `displot` (a figure-level function with similar flexibility) or `histplot` (an axes-level fu
nction for histograms).
  warnings.warn(msg, FutureWarning)

Out[10]: <AxesSubplot:xlabel='MinTemp', ylabel='Density'>
```

```
In [ ]:
```