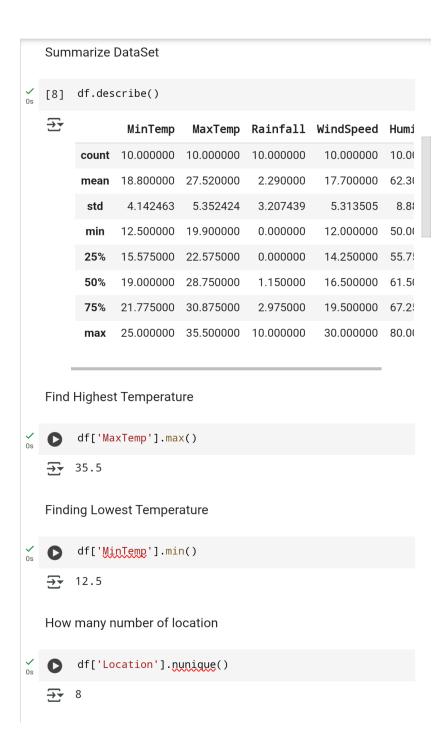
Roll No: CS6-86

PRN:202401080012

DATASET- WEATHER

EDS ACTIVITY NO.1



Read Data Set

[3] import pandas as pd
 df = pd.read_csv('/content/weather_data.csv')

Display first 5 rows

// 0s [4] df.head()

→ *		Date	Location	MinTemp	MaxTemp	Rainfall	Wind
	0	2025- 01-01	Sydney	21.1	30.5	0.0	
	1	2025- 01-02	Melbourne	14.3	22.1	2.3	
	2	2025- 01-03	Brisbane	23.4	33.2	5.1	
	3	2025- 01-04	Adelaide	18.2	27.8	0.0	
	4	2025- 01-05	Perth	19.8	31.0	0.0	

Show Column Names

[5] df.columns

Defining Shape of Dataset

[7] df.shape

→ (10, 9)

Where is max temperature is greater than 30 df[df['MaxTemp'] > 30] **→** Date Location MinTemp MaxTemp Rainfall Wind 2025-Sydney 21.1 30.5 0.0 01-01 2025-Brisbane 23.4 33.2 5.1 01-03 2025-19.8 31.0 0.0 Perth 01-05 2025-01-07 Darwin 25.0 35.5 10.0 New Column of Temp Range df['TempRange'] = df['MaxTemp'] - df['MinTemp'] √_{0s} [19] df $\overline{\mathbf{T}}$ Humidity RainToday RainTomorrow TempRange 11. 9.4 55 No No 65 Yes No 7.8 70 9.8 Yes Yes 60 9.6 No No

50

68

80

58

No

Yes

Yes

Nο

No

Yes

Yes

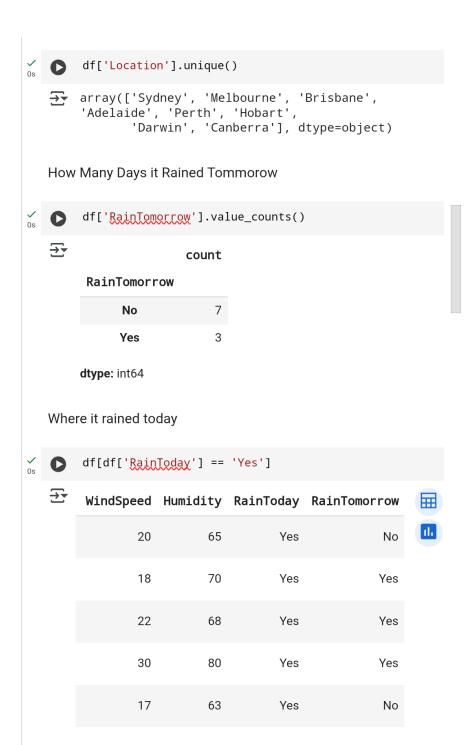
Nο

11.2

7.4

10.5

76



```
Find Average Rainfall
     df['Rainfall'].mean()
    np.float64(2.29)
Find Null values
     df.isnull().sum()
₹
                   0
         Date
                   0
        Location
                   0
       MinTemp
       MaxTemp
                   0
        Rainfall
       WindSpeed
       Humidity
                   0
       RainToday
     RainTomorrow
      TempRange
    dtype: int64
Drop Entries with Null
     df_clean = df.dropna()
Replace missing values
     df['Rainfall'].fillna(0, inplace=True)
<ipython-input-23-78d7d8d1caf8>:1: FutureWarning:
    The behavior will change in pandas 3.0. This inpla
```

For example, when doing 'df[col].method(value, inp

Sort By Max Temperature





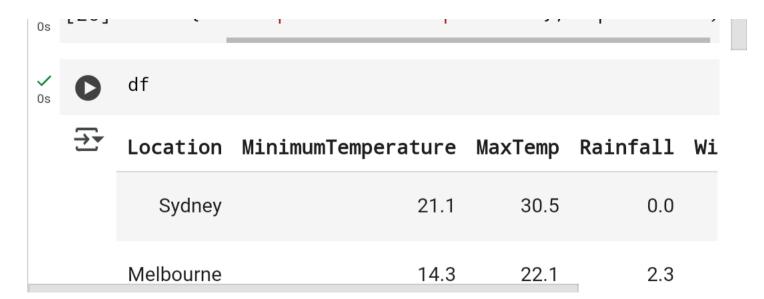
df.sort_values(by='MaxTemp', ascending=False)

 $\overline{\Sigma}$

	Date	Location	MinTemp	MaxTemp	Rainfall	Wind
6	2025- 01-07	Darwin	25.0	35.5	10.0	
2	2025- 01-03	Brisbane	23.4	33.2	5.1	
4	2025- 01-05	Perth	19.8	31.0	0.0	
0	2025- 01-01	Sydney	21.1	30.5	0.0	
8	2025- 01-09	Sydney	22.0	29.7	0.0	
3	2025- 01-04	Adelaide	18.2	27.8	0.0	
7	2025- 01-08	Canberra	16.4	24.0	0.5	
1	2025- 01-02 Melbourne	14.3	22.1	2.3		
9	2025- 01-10	Melbourne	15.3	21.5	1.8	
5	2025- 01-06	Hobart	12.5	19.9	3.2	

Rename Column





Weather Report for Sydney

✓ 0s	[28]	df[d	df[df['Location'] == 'Sydney']									
	₹		Date	Location	MinimumTemperature	MaxTemp	Rainfall	WindSpeed	Humidity	RainToday	RainTomorrow	TempRange
		0	2025-01- 01	Sydney	21.1	30.5	0.0	14	55	No	No	9.4
		8	2025-01- 09	Sydney	22.0	29.7	0.0	13	54	No	No	7.7