

# Bangladesh University of Business and Technology

Department of CSE

Name : Al Ahad Sufian : 18192103056

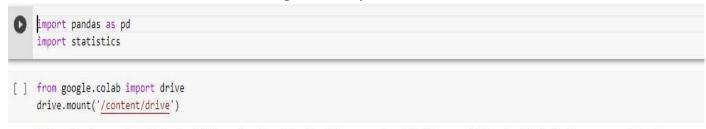
Intake : 41 Section : 03

Course Code : CSE-476

Course Title : Data Mining

01.Apply calculating mathematical statistics techniques (such as: mean -average value, median - middle value, median - middle value) in the following dataset <a href="https://www.kaggle.com/datasets/muthuj7/weather-dataset">https://www.kaggle.com/datasets/muthuj7/weather-dataset</a>

## 1.Import library



Drive already mounted at /content/drive; to attempt to forcibly remount, call drive.mount("/content/drive", force\_remount=True).

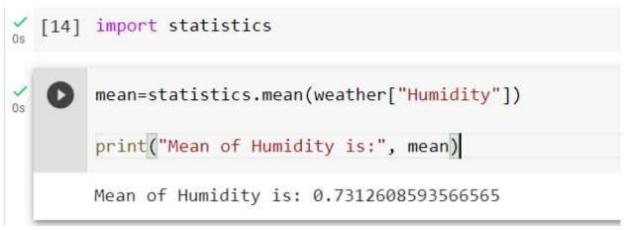
#### 2. Upload the dataset & Viewing the data

eather=pi eather	d.read_csv(" <u>/content/driv</u>	e/MyDrive/Colab	Notebooks/we	eatherHistory.csv	")							
	Formatted Date	Summary	Precip Type	Temperature (C)	Apparent Temperature (C)	Humidity	Wind Speed (km/h)	Wind Bearing (degrees)	Visibility (km)	Loud Cover	Pressure (millibars)	Daily Summa
0	2006-04-01 00:00:00.000 +0200	Partly Cloudy	rain	9.472222	7.388889	0.89	14.1197	251.0	15.8263	0.0	1015.13	Partly cloudy throughout the
1	2006-04-01 01:00:00.000 +0200	Partly Cloudy	rain	9.355556	7.227778	0.86	14.2646	259.0	15.8263	0.0	1015.63	Partly cloudy throughout the
2	2006-04-01 02:00:00.000 +0200	Mostly Cloudy	rain	9.377778	9.377778	0.89	3.9284	204.0	14,9569	0.0	1015.94	Partly cloudy throughout the
3	2006-04-01 03:00:00.000 +0200	Partly Cloudy	rain	8.288889	5.944444	0.83	14.1036	269.0	15.8263	0.0	1016.41	Partly cloudy throughout the
4	2006-04-01 04:00:00.000 +0200	Mostly Cloudy	rain	8.755556	6.977778	0.83	11.0446	259.0	15.8263	0.0	1016.51	Partly cloudy throughout the
				100								
6448	2016-09-09 19:00:00.000 +0200	Partly Cloudy	rain	26.016667	26.016667	0.43	10.9963	31.0	16.1000	0.0	1014.36	Partly cloudy starting in mon
96449	2016-09-09 20:00:00.000 +0200	Partly Cloudy	rain	24.583333	24.583333	0.48	10.0947	20.0	15.5526	0.0	1015.16	Partly cloudy starting in morr
96450	2016-09-09 21:00:00.000 +0200	Partly Cloudy	rain	22.038889	22.038889	0.56	8.9838	30.0	16.1000	0.0	1015.66	Partly cloudy starting in morr
16451	2016-09-09 22:00:00.000 +0200	Partly Cloudy	rain	21.522222	21.522222	0.60	10.5294	20.0	16.1000	0.0	1015.95	Partly cloudy starting in morr
96452	2016-09-09 23:00:00.000 +0200	Partly Cloudy	rain	20.438889	20.438889	0.61	5.8765	39.0	15.5204	0.0	1016.16	Partly cloudy starting in morr

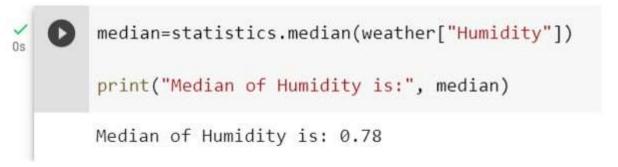
# **3**. View the top 10 rows of the dataset.

d(5)											
Formatted Date	Summary	Precip Type	Temperature (C)	Apparent Temperature (C)	Humidity	Wind Speed (km/h)	Wind Bearing (degrees)	Visibility (km)	Loud Cover	Pressure (millibars)	Daily Summary
01 00:00:00.000 +0200	Partly Cloudy	rain	9.472222	7.388889	0.89	14.1197	251.0	15.8263	0.0	1015.13	Partly cloudy throughout the day.
01 01:00:00.000 +0200	Partly Cloudy	rain	9.355556	7.227778	0.86	14.2646	259.0	15.8263	0.0	1015.63	Partly cloudy throughout the day.
01 02:00:00.000 +0200	Mostly Cloudy	rain	9.377778	9.377778	0.89	3.9284	204.0	14.9569	0.0	1015.94	Partly cloudy throughout the day.
01 03:00:00.000 +0200	Partly Cloudy	rain	8.288889	5.944444	0.83	14.1036	269.0	15.8263	0.0	1016.41	Partly cloudy throughout the day.
01 04:00:00.000 +0200	Mostly Cloudy	rain	8.755556	6.977778	0.83	11.0446	259.0	15.8263	0.0	1016.51	Partly cloudy throughout the day.
	Formatted Date 01 00:00:00.000 +0200 01 01:00:00.000 +0200 01 02:00:00.000 +0200 01 03:00:00.000 +0200		Formatted Date Summary Precip Type 10 00:00:00:000 +0200 Partly Cloudy rain 10 10:00:00:00:000 +0200 Partly Cloudy rain 10 10:00:00:00:000 +0200 Mostly Cloudy rain 10 10:00:00:00:000 +0200 Partly Cloudy rain	Formatted Date         Summary         Precip Type         Temperature (C)           01 00:00:00:000 +0200         Partly Cloudy         rain         9.472222           01 01:00:00:000 +0200         Partly Cloudy         rain         9.355556           01 02:00:00:000 +0200         Mostly Cloudy         rain         9.377778           01 03:00:00:000 +0200         Partly Cloudy         rain         8.288889	Formatted Date         Summary         Precip Type         Temperature (C)         Apparent Temperature (C)           01 00:00:00:000 +0200         Parlly Cloudy         rain         9.472222         7.388889           01 01:00:00:000 +0200         Parlly Cloudy         rain         9.355556         7.227778           01 02:00:00:000 +0200         Mostly Cloudy         rain         9.377778         9.377778           01 03:00:00:000 +0200         Parlly Cloudy         rain         8.288889         5.944444	Formatted Date         Summary         Precip Type         Temperature (C)         Apparent Temperature (C)         Humidity           01 00:00:00:000+0200         Partly Cloudy         rain         9.472222         7.388889         0.89           01 01:00:00:00:00 +0200         Partly Cloudy         rain         9.355556         7.227778         0.86           01 02:00:00:000 +0200         Mostly Cloudy         rain         9.377778         9.377778         0.89           01 03:00:00:000 +0200         Partly Cloudy         rain         8.288889         5.944444         0.83	Formatted Date Summary Precip Type Temperature (C) Apparent Temperature (C) Humidity Wind Speed (km/h) 01 00:00:00:000 +0:200 Partly Cloudy rain 9.472222 7.388889 0.89 14.1197 01 01:00:00:00:00 +0:200 Partly Cloudy rain 9.355556 7.227778 0.86 14.2646 01 02:00:00:000 +0:200 Mostly Cloudy rain 9.377778 9.377778 0.89 3.9284 01 03:00:00:000 +0:200 Partly Cloudy rain 8.288889 5.944444 0.83 14.1036	Formatted Date	Formatted Date Summary Precip Type Temperature (C) Apparent Temperature (C) Humidity Wind Speed (km/h) Wind Bearing (degrees) Visibility (km) 01 00:00:00:000+0200 Partly Cloudy rain 9:472222 7.388889 0.89 14:1197 251.0 15.8263 10 01:00:00:00:00+0200 Partly Cloudy rain 9:355556 7.227778 0.86 14:2646 259.0 15.8263 10 02:00:00:00:00+0200 Mostly Cloudy rain 9:377778 9:377778 0.89 3:9284 204.0 14:9569 10 03:00:00:00:00+0200 Partly Cloudy rain 8:288889 5:944444 0.83 14:1036 269.0 15:8263	Formatted Date Summary Precip Type Temperature (C) Apparent Temperature (C) Hunidity Wind Speed (km/h) Wind Bearing (degrees) Visibility (km) Loud Cover 11 00:00:00:000+0200 Partly Cloudy rain 9.472222 7.38889 0.89 14.1197 251.0 15.8263 0.0 11 01:00:00:00:00+0200 Partly Cloudy rain 9.355566 7.227778 0.86 14.2646 259.0 15.8263 0.0 11 02:00:00:00:00+0200 Mostly Cloudy rain 9.377778 9.377778 0.89 3.9284 204.0 14.9569 0.0 11 03:00:00:00:00+0200 Partly Cloudy rain 8.288889 5.94444 0.83 14.1036 269.0 15.8263 0.0	Formatted Date Summary Precip Type Temperature (C) Apparent Temperature (C) Humidity Wind Speed (km/h) Wind Bearing (degrees) Visibility (km) Loud Cover Pressure (millibars) 10 00:00:00:00:00:00 Partly Cloudy rain 9:472222 7.388889 0.89 14.1197 251.0 15.8263 0.0 1015.13 10 01:00:00:00:00:00:40:200 Partly Cloudy rain 9:355556 7.227778 0.86 14.2646 259.0 15.8263 0.0 1015.63 10 02:00:00:00:00:40:200 Mostly Cloudy rain 9:377778 0.89 3:937778 0.89 3:9284 204.0 14.9569 0.0 1015.94 10 03:00:00:00:00:40:200 Partly Cloudy rain 8:288889 5:944444 0.83 14.1036 269.0 15.8263 0.0 1016.41

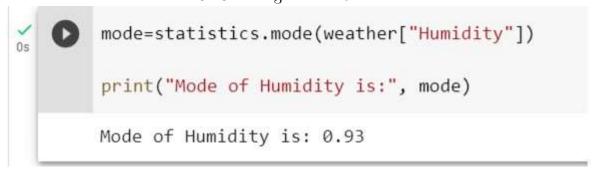
#### 4. Showing the mean value of the Humidity Column



# 5. Showing the median value



## 6. Showing the mode value



## 7. Showing the Standard deviation value

```
stdev=statistics.stdev(weather["Humidity"])

print("Standard deviation of Humidity is:", stdev)

Standard deviation of Humidity is: 0.19565322439944888
```