

Bangladesh University of Business & Technology Dhaka,

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Mirpur-2, Dhaka-1216



Course Code : CSE 476

Course Name : Data Mining Lab

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Assignment - 2

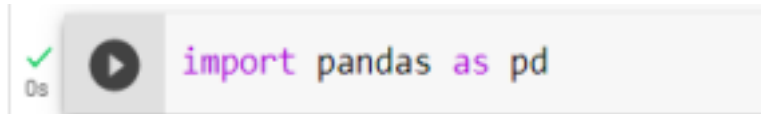
Submitted By	Submitted To
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CO2 Apply calculating mathematical statistics techniques (such as: mean -

average value, median - middle value, median - middle value, median - middle value) in the following dataset -

<https://www.kaggle.com/datasets/muthuj7/weather-dataset>

1.Import library



2. Upload the dataset & Viewing the data



	Formatted Date	Summary	Wprecip Type	Temperature (°C)	Apparent Temperature (°C)	Humidity	Wind Speed (km/h)	Wind Bearing (degrees)	Visibility (km)	Cloud Cover	Pressure (millibars)	Daily Summary
0	2006-04-01 00:00:00 +0200	Partly Cloudy	rain	8.472222	7.385556	0.98	14.1197	251.0	15.8263	0.0	1016.13	Partly cloudy throughout the day.
1	2006-04-01 01:00:00 +0200	Partly Cloudy	rain	8.355556	7.227778	0.98	14.2645	258.0	15.8263	0.0	1016.03	Partly cloudy throughout the day.
2	2006-04-01 02:00:00 +0200	Mostly Cloudy	rain	8.377778	9.377778	0.98	5.8264	294.0	14.8558	0.0	1015.94	Partly cloudy throughout the day.
3	2006-04-01 03:00:00 +0200	Partly Cloudy	rain	8.288889	5.944444	0.93	14.1836	268.0	15.8263	0.0	1016.41	Partly cloudy throughout the day.
4	2006-04-01 04:00:00 +0200	Mostly Cloudy	rain	8.752222	6.977778	0.93	11.9445	258.0	15.8263	0.0	1016.51	Partly cloudy throughout the day.
...
95382	2012-02-03 18:00:00 +0100	Foggy	snow	-18.008000	-16.150000	0.94	12.8800	18.0	2.5768	0.0	1028.13	Foggy starting in the morning continuing until...
95383	2012-02-03 19:00:00 +0100	Foggy	snow	-18.033333	-16.981111	0.86	11.7630	18.0	2.3828	0.0	1028.08	Foggy starting in the morning continuing until...
95384	2012-02-03 20:00:00 +0100	Foggy	snow	-18.008000	-16.150000	0.94	12.8800	28.0	1.2688	0.0	1028.13	Foggy starting in the morning continuing until...
95385	2012-02-03 21:00:00 +0100	Foggy	snow	-18.008000	-15.989557	0.94	11.2700	28.0	1.2688	0.0	1028.20	Foggy starting in the morning continuing until...
95386	2012-02-03 22:00:00 +0100	Foggy	snow	-8.958000	-15.384444	0.95	10.8421	18.0	1.4329	0.0	1028.00	NaN

3.View the top 10 rows of the dataset.

weather_head(10)

	Forecast Date	Summary	Precip Type	Temperature (C)	Apparent Temperature (C)	Humidity	Wind Speed (km/h)	Wind Bearing (degrees)	Visibility (km)	Cloud Cover	Pressure (hPa)	Daily Summary
0	2006-04-01 00:00:00 +0200	Partly Cloudy	nan	9.472222	7.385556	0.88	14.1987	250.0	16.6250	0.0	1015.13	Partly cloudy throughout the day
1	2006-04-01 01:00:00 +0200	Partly Cloudy	nan	9.388889	7.227778	0.88	14.2640	250.0	16.6250	0.0	1015.63	Partly cloudy throughout the day
2	2006-04-01 02:00:00 +0200	Miscly Cloudy	nan	9.377778	6.977778	0.88	13.8294	204.0	14.9500	0.0	1015.94	Partly cloudy throughout the day
3	2006-04-01 03:00:00 +0200	Partly Cloudy	nan	9.288889	5.944444	0.83	14.1836	250.0	15.6250	0.0	1016.41	Partly cloudy throughout the day
4	2006-04-01 04:00:00 +0200	Miscly Cloudy	nan	8.795556	5.977778	0.83	11.9440	250.0	15.6250	0.0	1016.51	Partly cloudy throughout the day
5	2006-04-01 05:00:00 +0200	Partly Cloudy	nan	9.232222	7.111111	0.86	13.9987	250.0	14.9500	0.0	1016.06	Partly cloudy throughout the day
6	2006-04-01 06:00:00 +0200	Partly Cloudy	nan	7.733333	5.932222	0.86	12.3840	250.0	8.9625	0.0	1016.72	Partly cloudy throughout the day
7	2006-04-01 07:00:00 +0200	Partly Cloudy	nan	8.752222	6.927778	0.88	16.1910	260.0	8.9625	0.0	1016.84	Partly cloudy throughout the day
8	2006-04-01 08:00:00 +0200	Partly Cloudy	nan	10.832222	10.832222	0.83	11.2183	250.0	8.9625	0.0	1017.37	Partly cloudy throughout the day
9	2006-04-01 09:00:00 +0200	Partly Cloudy	nan	13.772222	13.772222	0.73	12.5256	270.0	8.9625	0.0	1017.22	Partly cloudy throughout the day

4. Showing the mean -average value,

```
[14] import statistics

mean=statistics.mean(weather["Humidity"])

print("Mean of Humidity is:", mean)
```

Mean of Humidity is: 0.7312608593566565

5. Showing the median - middle value,

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

print("Median of Humidity is:", median)
```

Median of Humidity is: 0.78

6. Showing the mode value

✓
0s



```
mode=statistics.mode(weather["Humidity"])  
  
print("Mode of Humidity is:", mode)
```

Mode of Humidity is: 0.93

7. Showing the Standard deviation value

✓
0s



```
stdev=statistics.stdev(weather["Humidity"])  
  
print("Standard deviation of Humidity is:", stdev)
```

Standard deviation of Humidity is: 0.19565322439944888