KETENTUAN FORMAT UPLOAD DATA

DATA AWAL

Waktu			Tahun			T min	T max	T average	Sun Radia	RH min	RH max	RH Avg	Wind Dire	Wind Spe	Pressure M	Pressure M	Pressure A	Rain Rate
0	0	0	1	5	2018	26.1	26.9	26.5	213.6	86.9	90.2	88.6	244	1.5	999.6	999.8	999.7	0
0	10	0	1	5	2018	26.9	27.6	27.2	255.5	79	88.5	84.3	246.1	1.3	999.8	999.9	999.8	0
0	20	0	1	5	2018	27.6	28	27.8	301.9	76.3	82.9	79.2	224.2	1.4	999.9	1000.1	1000	0
0	30	0	1	5	2018	28	28.1	28	334.1	75	81.7	77.7	203.2	1.6	1000.1	1000.2	1000.1	0
0	40	0	1	5	2018	28.1	29.1	28.4	379.1	72.5	80	75.7	186.2	1.2	1000.2	1000.3	1000.2	0
0	50	0	1	5	2018	28.5	29.1	28.8	411.8	72	77.9	74.3	148.2	1.6	1000.3	1000.4	1000.3	0
1	0	0	1	5	2018	28.8	29.3	29.1	463.7	69.9	78.4	73.1	89.3	1.4	1000.4	1000.6	1000.5	0
1	10	0	1	5	2018	28.9	29.4	29.2	509.3	69.2	77	72.1	99.1	2.2	1000.6	1000.7	1000.6	0
1	20	0	1	5	2018	28.9	29.3	29	550.8	69.1	76.4	72	78.1	2.6	1000.7	1000.8	1000.7	0
1	30	0	1	5	2018	28.9	29.4	29.2	615.5	69.7	78.1	72.6	61.5	2.7	1000.7	1000.8	1000.8	0
1	40	0	1	5	2018	29.1	29.5	29.3	649.9	69.9	75.2	72.4	75.8	2.7	1000.8	1000.8	1000.8	0
1	50	0	1	5	2018	29.4	29.9	29.6	700.5	67.5	75.5	71.3	84	3.2	1000.7	1000.8	1000.8	0
2	0	0	1	5	2018	29.4	30	29.7	670.9	66.5	74.6	70.8	96.8	3.9	1000.7	1000.8	1000.7	0
2	10	0	1	5	2018	29.6	30.1	29.8	787.3	65.3	73.4	69.2	80.8	4	1000.7	1000.8	1000.7	0
2	20	0	1	5	2018	29.9	30.1	30	930.1	65.1	71.9	68.1	76.8	4.6	1000.6	1000.7	1000.7	0
2	30	0	1	5	2018	29.4	30.4	29.8	617.4	65.7	72	68.6	84.3	3.9	1000.7	1000.8	1000.7	0
2	40	0	1	5	2018	30.1	30.5	30.3	872.9	64.6	71.6	67.7	75.8	4.2	1000.6	1000.7	1000.6	0
2	50	0	1	5	2018	30	30.5	30.2	882.6	63	71.2	67	77.8	4	1000.5	1000.6	1000.6	0

DATA UPLOAD

_id	waktu	temperatı	sun_radia	Relative_I	wind_dire	wind_spe	pressure	rain_rate	timestamp
1	2017-08-31 00:00	26.84167	0.408333	53.35	103.35	0	1010.483	1.05	3713306400
2	2017-08-31 02:00	28.55833	0.316667	62.38333	43.225	0	1010.208	1.4	3713313600
3	2017-08-31 04:00	28.91667	0.191667	68.25	43.2	0	1009.517	1.4	3713320800
4	2017-08-31 06:00	28.875	0.183333	69.2	43.16667	0	1009.442	1.4	3713328000
5	2017-08-31 08:00	28.80909	0.154545	69.22727	43.18182	0	1010.445	1.4	3713335200
6	2017-08-31 10:00	28.15	0.216667	61.35833	123.5917	0	1011.3	0.116667	3713342400
7	2017-08-31 12:00	30.36667	0.55	60.35	43.19167	0	1011.642	0	3713349600
8	2017-08-31 14:00	31.725	0.483333	56.6	43.325	0	1009.8	0	3713356800
9	2017-08-31 16:00	32.74167	0.5	55.225	43.525	0	1008.2	0	3713364000
10	2017-08-31 18:00	32.81667	0.3	55.73333	43.53333	0	1007.4	0	3713371200
11	2017-08-31 20:00	32.1	0.183333	57.31667	43.50833	0	1007.975	0	3713378400
12	2017-08-31 22:00	31.34167	0.191667	58.95833	43.5	0	1009.258	0	3713385600
13	2017-09-01 00:00	30.80833	0.175	60	43.50833	0	1010.067	0	3713392800
14	2017-09-01 02:00	30.29167	0.141667	60.81667	43.5	0	1009.825	0	3713400000

GUIDE

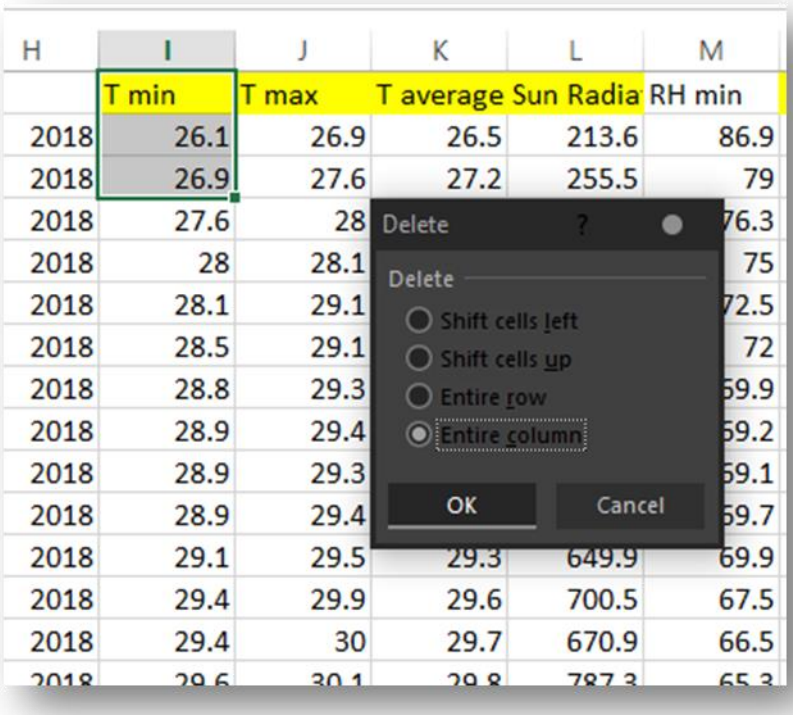
1. **Menghilangkan data MAX dan MIN**
   Penghapusan data MAX dan MIN di setiap sensor pada data awal, sehingga setiap sensor hanya memiliki data AVG.

   Cara :

   - Data Awal

Waktu			Tahun			T min	T max	T average	Sun Radia	RH min	RH max	RH Avg	Wind Dire	Wind Spe	Pressure M	Pressure M	Pressure A	Rain Rate
0	0	0	1	5	2018	26.1	26.9	26.5	213.6	86.9	90.2	88.6	244	1.5	999.6	999.8	999.7	0
0	10	0	1	5	2018	26.9	27.6	27.2	255.5	79	88.5	84.3	246.1	1.3	999.8	999.9	999.8	0
0	20	0	1	5	2018	27.6	28	27.8	301.9	76.3	82.9	79.2	224.2	1.4	999.9	1000.1	1000	0
0	30	0	1	5	2018	28	28.1	28	334.1	75	81.7	77.7	203.2	1.6	1000.1	1000.2	1000.1	0
0	40	0	1	5	2018	28.1	29.1	28.4	379.1	72.5	80	75.7	186.2	1.2	1000.2	1000.3	1000.2	0
0	50	0	1	5	2018	28.5	29.1	28.8	411.8	72	77.9	74.3	148.2	1.6	1000.3	1000.4	1000.3	0
1	0	0	1	5	2018	28.8	29.3	29.1	463.7	69.9	78.4	73.1	89.3	1.4	1000.4	1000.6	1000.5	0
1	10	0	1	5	2018	28.9	29.4	29.2	509.3	69.2	77	72.1	99.1	2.2	1000.6	1000.7	1000.6	0
1	20	0	1	5	2018	28.9	29.3	29	550.8	69.1	76.4	72	78.1	2.6	1000.7	1000.8	1000.7	0
1	30	0	1	5	2018	28.9	29.4	29.2	615.5	69.7	78.1	72.6	61.5	2.7	1000.7	1000.8	1000.8	0
1	40	0	1	5	2018	29.1	29.5	29.3	649.9	69.9	75.2	72.4	75.8	2.7	1000.8	1000.8	1000.8	0
1	50	0	1	5	2018	29.4	29.9	29.6	700.5	67.5	75.5	71.3	84	3.2	1000.7	1000.8	1000.8	0
2	0	0	1	5	2018	29.4	30	29.7	670.9	66.5	74.6	70.8	96.8	3.9	1000.7	1000.8	1000.7	0
2	10	0	1	5	2018	29.6	30.1	29.8	787.3	65.3	73.4	69.2	80.8	4	1000.7	1000.8	1000.7	0
2	20	0	1	5	2018	29.9	30.1	30	930.1	65.1	71.9	68.1	76.8	4.6	1000.6	1000.7	1000.7	0
2	30	0	1	5	2018	29.4	30.4	29.8	617.4	65.7	72	68.6	84.3	3.9	1000.7	1000.8	1000.7	0
2	40	0	1	5	2018	30.1	30.5	30.3	872.9	64.6	71.6	67.7	75.8	4.2	1000.6	1000.7	1000.6	0
2	50	0	1	5	2018	30	30.5	30.2	882.6	63	71.2	67	77.8	4	1000.5	1000.6	1000.6	0

   - Menghapus data max dan min di setiap sensornya



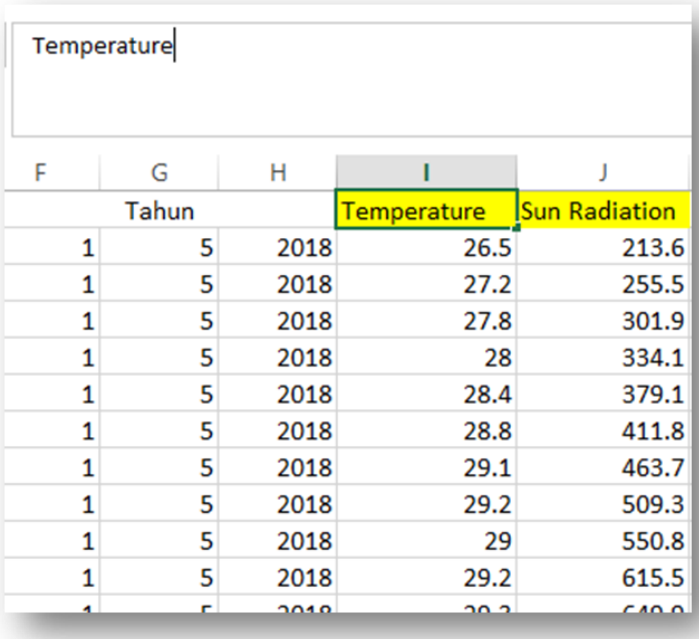
- Sehingga menjadi data awal yang hanya memiliki data AVG di setiap sesornya

Waktu			Tahun			T average	Sun Radiation	RH Avg	Wind Direction	Wind Speed Avg	Pressure Avg	Rain Rate
0	0	0	1	5	2018	26.5	213.6	88.6	244	1.5	999.7	0
0	10	0	1	5	2018	27.2	255.5	84.3	246.1	1.3	999.8	0
0	20	0	1	5	2018	27.8	301.9	79.2	224.2	1.4	1000	0
0	30	0	1	5	2018	28	334.1	77.7	203.2	1.6	1000.1	0
0	40	0	1	5	2018	28.4	379.1	75.7	186.2	1.2	1000.2	0
0	50	0	1	5	2018	28.8	411.8	74.3	148.2	1.6	1000.3	0
1	0	0	1	5	2018	29.1	463.7	73.1	89.3	1.4	1000.5	0
1	10	0	1	5	2018	29.2	509.3	72.1	99.1	2.2	1000.6	0
1	20	0	1	5	2018	29	550.8	72	78.1	2.6	1000.7	0
1	30	0	1	5	2018	29.2	615.5	72.6	61.5	2.7	1000.8	0
1	40	0	1	5	2018	29.3	649.9	72.4	75.8	2.7	1000.8	0
1	50	0	1	5	2018	29.6	700.5	71.3	84	3.2	1000.8	0
2	0	0	1	5	2018	29.7	670.9	70.8	96.8	3.9	1000.7	0
2	10	0	1	5	2018	29.8	787.3	69.2	80.8	4	1000.7	0
2	20	0	1	5	2018	30	930.1	68.1	76.8	4.6	1000.7	0
2	30	0	1	5	2018	29.8	617.4	68.6	84.3	3.9	1000.7	0
2	40	0	1	5	2018	30.3	872.9	67.7	75.8	4.2	1000.6	0
2	50	0	1	5	2018	30.2	882.6	67	77.8	4	1000.6	0
3	0	0	1	5	2018	30.4	908.9	65.8	98.9	3.6	1000.5	0
3	10	0	1	5	2018	30.8	914.8	64.1	83.3	3.3	1000.4	0

2. **Mengubah nama data di setiap sensornya**
   Nama pada data harus dirubah agar terbaca oleh sistem, sehingga di setiap nama sensor harus memenui ketentuan sebagai berikut :
   - Mengikuti Besar kecilnya tulisan
   - Susunan tiap sensornya

   Cara :

   - Mengganti nama pada setiap sensornya



- Ketentuan nama pada setiap sensornya
  - T average -> temperature
  - Sun Radiation -> sun_radiation
  - RH Avg -> relative_humidity
  - Wind Direction -> wind_direction
  - Wind Speed Avg -> wind_speed
  - Pressure Avg -> pressure
  - Rain Rate -> rain_rate

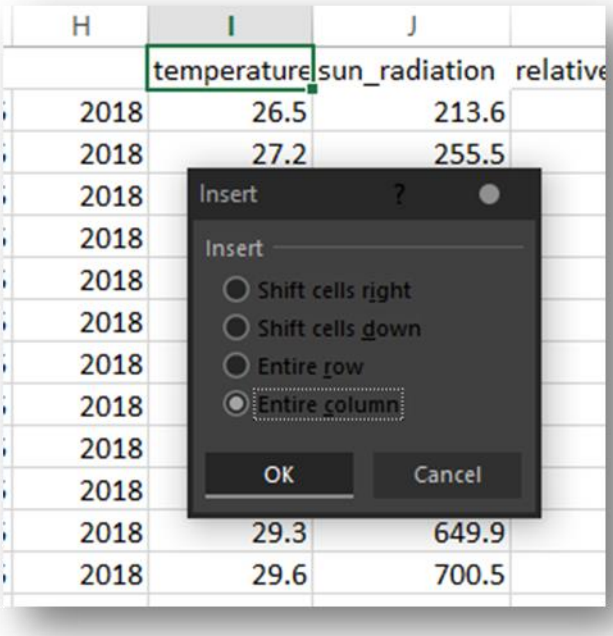
- Sehingga menjadi

Waktu			Tahun			temperature	sun_radiation	relative_humidity	wind_direction	wind_speed	pressure	rain_rate
0	0	0	1	5	2018	26.5	213.6	88.6	244	1.5	999.7	0
0	10	0	1	5	2018	27.2	255.5	84.3	246.1	1.3	999.8	0
0	20	0	1	5	2018	27.8	301.9	79.2	224.2	1.4	1000	0
0	30	0	1	5	2018	28	334.1	77.7	203.2	1.6	1000.1	0
0	40	0	1	5	2018	28.4	379.1	75.7	186.2	1.2	1000.2	0
0	50	0	1	5	2018	28.8	411.8	74.3	148.2	1.6	1000.3	0
1	0	0	1	5	2018	29.1	463.7	73.1	89.3	1.4	1000.5	0
1	10	0	1	5	2018	29.2	509.3	72.1	99.1	2.2	1000.6	0
1	20	0	1	5	2018	29	550.8	72	78.1	2.6	1000.7	0
1	30	0	1	5	2018	29.2	615.5	72.6	61.5	2.7	1000.8	0
1	40	0	1	5	2018	29.3	649.9	72.4	75.8	2.7	1000.8	0
1	50	0	1	5	2018	29.6	700.5	71.3	84	3.2	1000.8	0
2	0	0	1	5	2018	29.7	670.9	70.8	96.8	3.9	1000.7	0
2	10	0	1	5	2018	29.8	787.3	69.2	80.8	4	1000.7	0
2	20	0	1	5	2018	30	930.1	68.1	76.8	4.6	1000.7	0
2	30	0	1	5	2018	29.8	617.4	68.6	84.3	3.9	1000.7	0
2	40	0	1	5	2018	30.3	872.9	67.7	75.8	4.2	1000.6	0
2	50	0	1	5	2018	30.2	882.6	67	77.8	4	1000.6	0
3	0	0	1	5	2018	30.4	908.9	65.8	98.9	3.6	1000.5	0
3	10	0	1	5	2018	30.8	914.8	64.1	83.3	3.3	1000.4	0

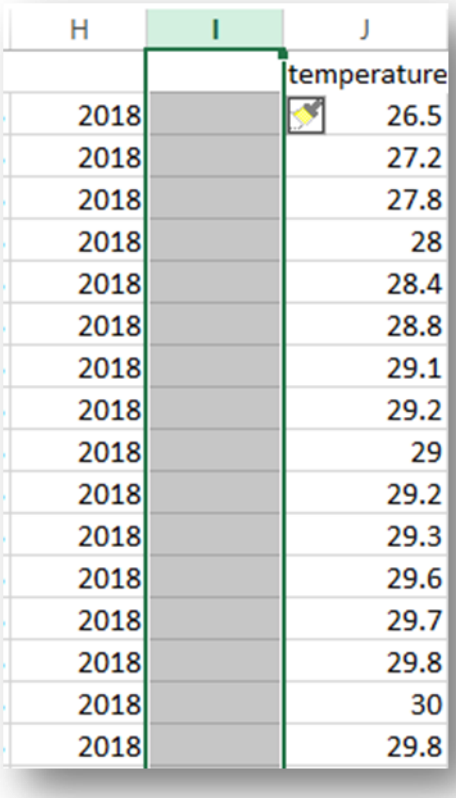
3. **Merubah Waktu**
   Waktu diubah menjadi format date time, agar size pada data tidak terlalu besar.

   Cara :

   - Tambahkan satu kolom disebelah Tahun

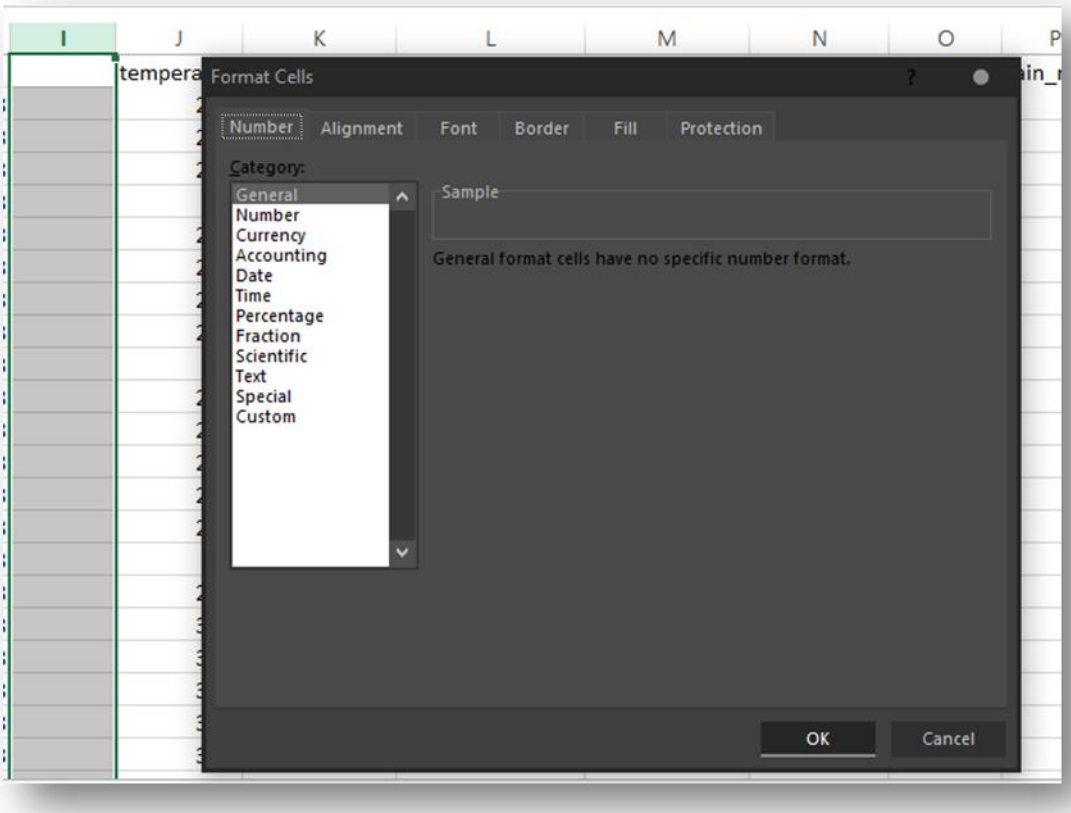


- Lalu pada kolom baru ubah format dengan ketentuan sebagai berikut.
  Step 1 : pilih pada kolom baru, lalu klik ctrl + space



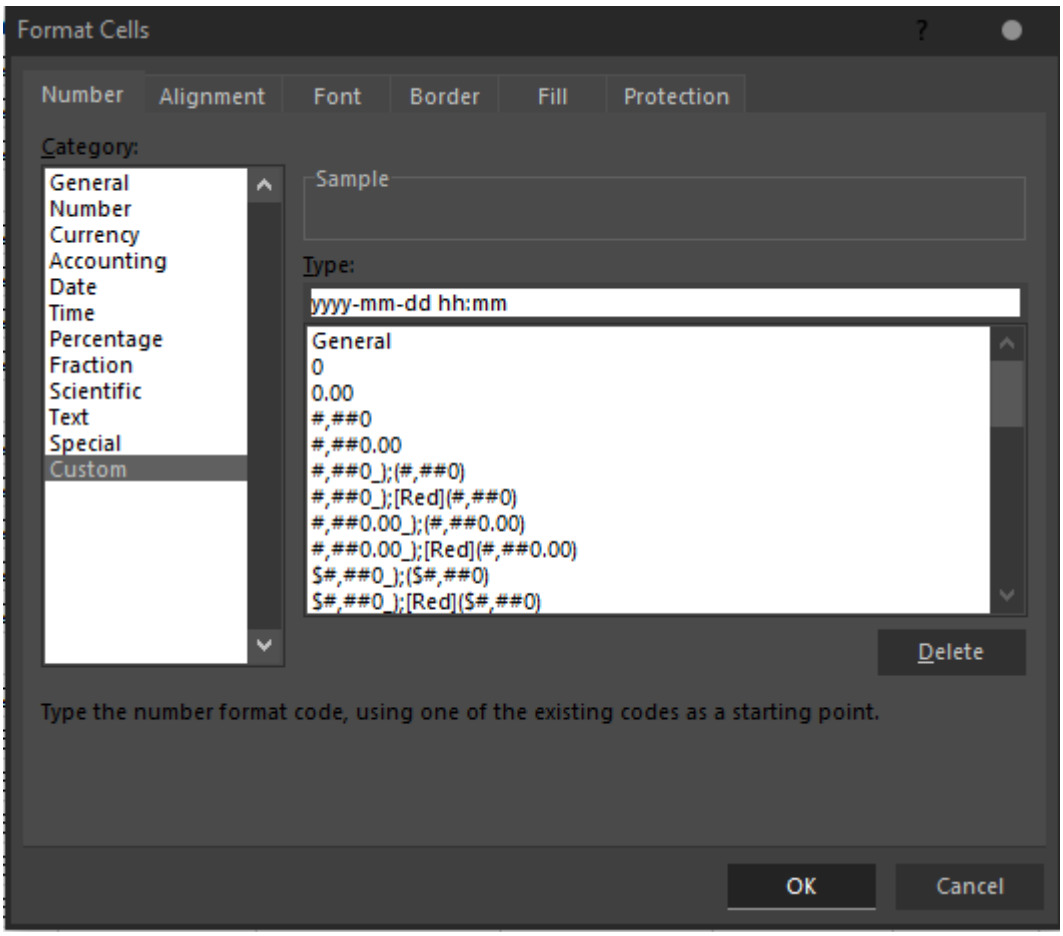
H	I	J
		temperature
2018		26.5
2018		27.2
2018		27.8
2018		28
2018		28.4
2018		28.8
2018		29.1
2018		29.2
2018		29
2018		29.2
2018		29.3
2018		29.6
2018		29.7
2018		29.8
2018		30
2018		29.8

  Step 2 : kemudian klik kanan dan pilih Format Cells..

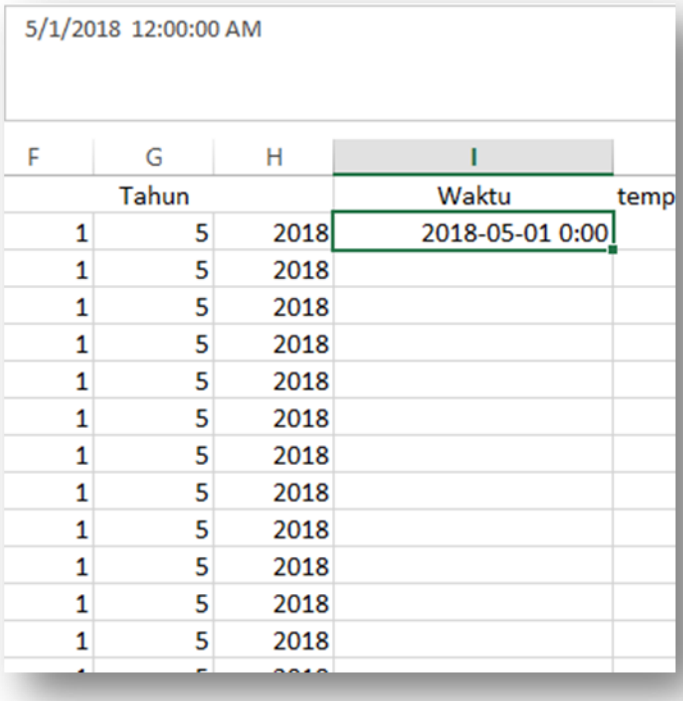


Step 3 : pilih Custom lalu ketik di text box menjadi
yyyy-mm-dd hh:mm

Lalu klik OK



- Tuliskan Nama Waktu pada kolom baru, dan isikan tanggal sesuai dengan waktu yang ada.

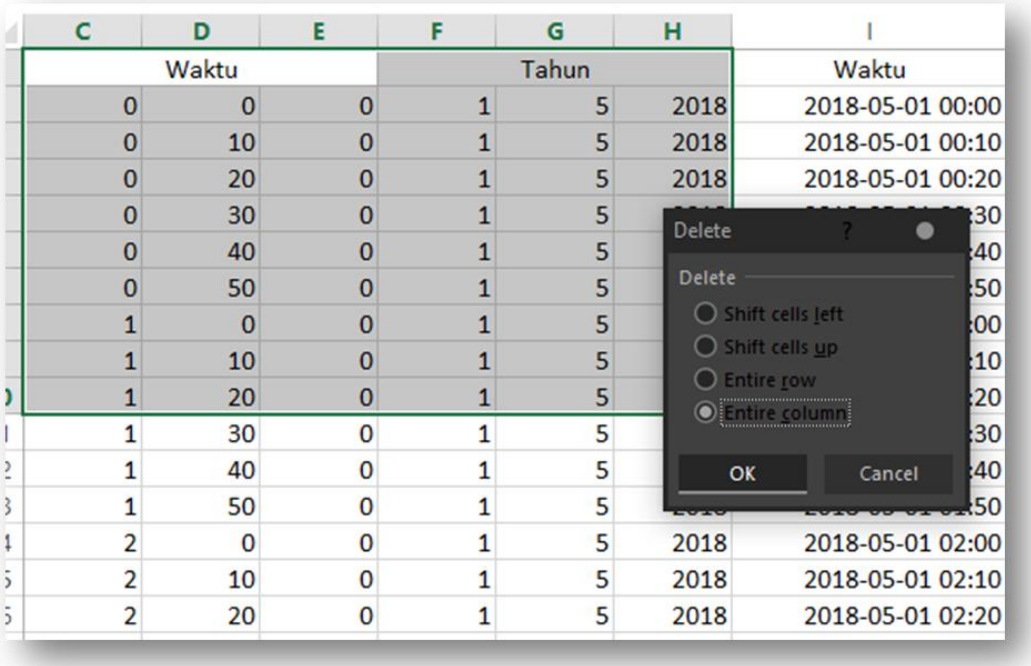


- Lalu Drag kebawah mengikuti tanggal disampingnya

C	D	E	F	G	H	I	
Waktu			Tahun			Waktu	tempe
0	0	0	1	5	2018	2018-05-01 00:00	
0	10	0	1	5	2018	2018-05-01 00:10	
0	20	0	1	5	2018	2018-05-01 00:20	
0	30	0	1	5	2018	2018-05-01 00:30	
0	40	0	1	5	2018	2018-05-01 00:40	
0	50	0	1	5	2018	2018-05-01 00:50	
1	0	0	1	5	2018	2018-05-01 01:00	
1	10	0	1	5	2018	2018-05-01 01:10	
1	20	0	1	5	2018	2018-05-01 01:20	
1	30	0	1	5	2018	2018-05-01 01:30	
1	40	0	1	5	2018	2018-05-01 01:40	
1	50	0	1	5	2018	2018-05-01 01:50	
2	0	0	1	5	2018	2018-05-01 02:00	
2	10	0	1	5	2018	2018-05-01 02:10	
2	20	0	1	5	2018	2018-05-01 02:20	
2	30	0	1	5	2018	2018-05-01 02:30	
2	40	0	1	5	2018	2018-05-01 02:40	
2	50	0	1	5	2018	2018-05-01 02:50	
3	0	0	1	5	2018	2018-05-01 03:00	
3	10	0	1	5	2018	2018-05-01 03:10	

*Pastikan tanggal yang dibuat sama dengan tanggal pada data

- Setelah selesai hapus data waktu dan tahun



- Sehingga menjadi

Waktu	temperature	sun_radiation	relative_humidity	wind_direction	wind_speed	pressure	rain_rate
2018-05-01 00:00	26.5	213.6	88.6	244	1.5	999.7	0
2018-05-01 00:10	27.2	255.5	84.3	246.1	1.3	999.8	0
2018-05-01 00:20	27.8	301.9	79.2	224.2	1.4	1000	0
2018-05-01 00:30	28	334.1	77.7	203.2	1.6	1000.1	0
2018-05-01 00:40	28.4	379.1	75.7	186.2	1.2	1000.2	0
2018-05-01 00:50	28.8	411.8	74.3	148.2	1.6	1000.3	0
2018-05-01 01:00	29.1	463.7	73.1	89.3	1.4	1000.5	0
2018-05-01 01:10	29.2	509.3	72.1	99.1	2.2	1000.6	0
2018-05-01 01:20	29	550.8	72	78.1	2.6	1000.7	0
2018-05-01 01:30	29.2	615.5	72.6	61.5	2.7	1000.8	0
2018-05-01 01:40	29.3	649.9	72.4	75.8	2.7	1000.8	0
2018-05-01 01:50	29.6	700.5	71.3	84	3.2	1000.8	0
2018-05-01 02:00	29.7	670.9	70.8	96.8	3.9	1000.7	0
2018-05-01 02:10	29.8	787.3	69.2	80.8	4	1000.7	0
2018-05-01 02:20	30	930.1	68.1	76.8	4.6	1000.7	0

4. Memambahkan Timestamp

Menambahkan kolom timestamp agar waktu terbaca oleh sistem.

Cara:

- Pertama yaitu perlu mengetik Coordinated Universal Time ke dalam sel, 1 / 1 / 1970.

	A	B	C	D	E	F	G	H	I	J
1	waktu	temperatu	sun_radia	Relative_h	wind_dire	wind_spe	pressure	rain_rate		1/1/1970
2	2017-08-31 00:00	26.84167	0.408333	53.35	103.35	0	1010.483	1.05		
3	2017-08-31 02:00	28.55833	0.316667	62.38333	43.225	0	1010.208	1.4		
4	2017-08-31 04:00	28.91667	0.191667	68.25	43.2	0	1009.517	1.4		
5	2017-08-31 06:00	28.875	0.183333	69.2	43.16667	0	1009.442	1.4		
6	2017-08-31 08:00	28.80909	0.154545	69.22727	43.18182	0	1010.445	1.4		
7	2017-08-31 10:00	28.15	0.216667	61.35833	123.5917	0	1011.3	0.116667		
8	2017-08-31 12:00	30.36667	0.55	60.35	43.19167	0	1011.642	0		
9	2017-08-31 14:00	31.725	0.483333	56.6	43.325	0	1009.8	0		
10	2017-08-31 16:00	32.74167	0.5	55.225	43.525	0	1008.2	0		

- ketik rumus ini = (A2- $ J $ 1) * 86400 ke dalam kolom disebelah rain_rate
  Keterangan :
  A2 : waktu yang dipilih
  J : Coordinate Universal Time

I2 | = (A3 - J1)*86400

	A	B	C	D	E	F	G	H	I	J
1	waktu	temperatu	sun_radia	Relative_h	wind_dire	wind_spe	pressure	rain_rate	timestamp	1/1/1970
2	2017-08-31 00:00	26.84167	0.408333	53.35	103.35	0	1010.483	1.05	1504144800	
3	2017-08-31 02:00	28.55833	0.316667	62.38333	43.225	0	1010.208	1.4		
4	2017-08-31 04:00	28.91667	0.191667	68.25	43.2	0	1009.517	1.4		
5	2017-08-31 06:00	28.875	0.183333	69.2	43.16667	0	1009.442	1.4		
6	2017-08-31 08:00	28.80909	0.154545	69.22727	43.18182	0	1010.445	1.4		
7	2017-08-31 10:00	28.15	0.216667	61.35833	123.5917	0	1011.3	0.116667		
8	2017-08-31 12:00	30.36667	0.55	60.35	43.19167	0	1011.642	0		

- lalu drag kebawah timestamp yang telah kita buat dan beri nama timestamp.

	A	B	C	D	E	F	G	H	I	J
1	waktu	temperatı	sun_radia	Relative_l	wind_dire	wind_spe	pressure	rain_rate	timestamp	1/1/1970
2	2017-08-31 00:00	26.84167	0.408333	53.35	103.35	0	1010.483	1.05	1504144800	
3	2017-08-31 02:00	28.55833	0.316667	62.38333	43.225	0	1010.208	1.4	1504152000	
4	2017-08-31 04:00	28.91667	0.191667	68.25	43.2	0	1009.517	1.4	1504159200	
5	2017-08-31 06:00	28.875	0.183333	69.2	43.16667	0	1009.442	1.4	1504166400	
6	2017-08-31 08:00	28.80909	0.154545	69.22727	43.18182	0	1010.445	1.4	1504173600	
7	2017-08-31 10:00	28.15	0.216667	61.35833	123.5917	0	1011.3	0.116667	1504180800	
8	2017-08-31 12:00	30.36667	0.55	60.35	43.19167	0	1011.642	0	1504188000	
9	2017-08-31 14:00	31.725	0.483333	56.6	43.325	0	1009.8	0	1504195200	
10	2017-08-31 16:00	32.74167	0.5	55.225	43.525	0	1008.2	0	1504202400	
11	2017-08-31 18:00	32.81667	0.3	55.73333	43.53333	0	1007.4	0	1504209600	
12	2017-08-31 20:00	32.1	0.183333	57.31667	43.50833	0	1007.975	0	1504216800	
13	2017-08-31 22:00	31.34167	0.191667	58.95833	43.5	0	1009.258	0	1504224000	
14	2017-09-01 00:00	30.80833	0.175	60	43.50833	0	1010.067	0	1504231200	
15	2017-09-01 02:00	30.29167	0.141667	60.81667	43.5	0	1009.825	0	1504238400	
16	2017-09-01 04:00	29.99167	0.191667	61.11667	43.5	0	1008.908	0	1504245600	
17	2017-09-01 06:00	29.65833	0.15	61.30833	43.5	0	1008.825	0	1504252800	

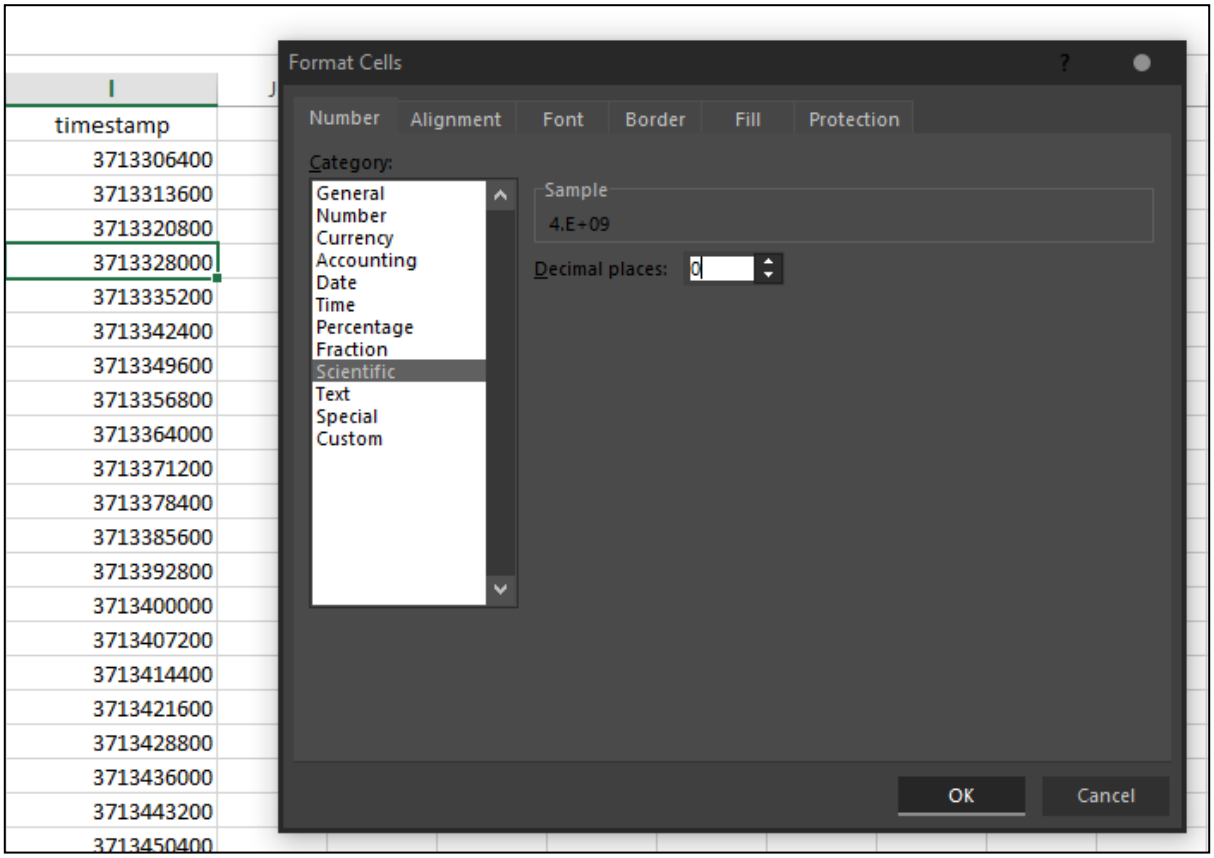
*Setelah Timestamp dibuat, hapus K yaitu Coordinate Universal Time

- Jika pada angka di timestamp menjadi ### (atau angka lainnya, bukan angka seperti contoh diatas)
  maka, yang harus dilakukan :
  - Step 1 : perbesar kolom

I
imestamp
3.7E+09
3.7E+09
3.7E+09
3.7E+09
3.7E+09
3.7E+09
3.7E+09

I	J
timestamp	
3713306400	
3713313600	
3713320800	
3713328000	
3713335200	
3713342400	
3713349600	
3713356800	

- Step 2 : jika masih tidak bisa, lakukan
    - Blok semua data timestamp, dengan cara klik ctrl + space
    - Lalu klik kanan -> pilih format cells
    - Pilih categrory scientific
    - Ubah decimal places menjadi 0
    - Lalu klik ok

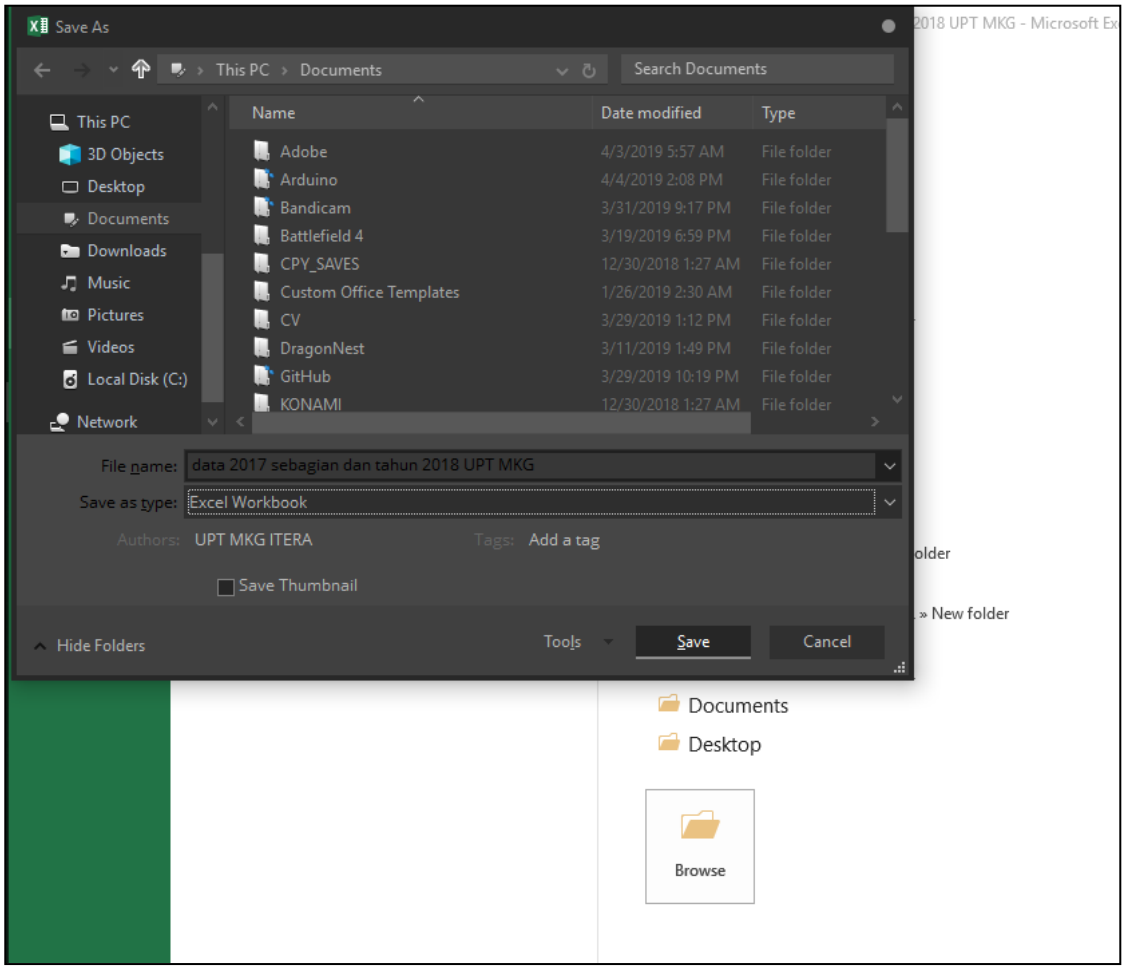


5. **Cara Save data**

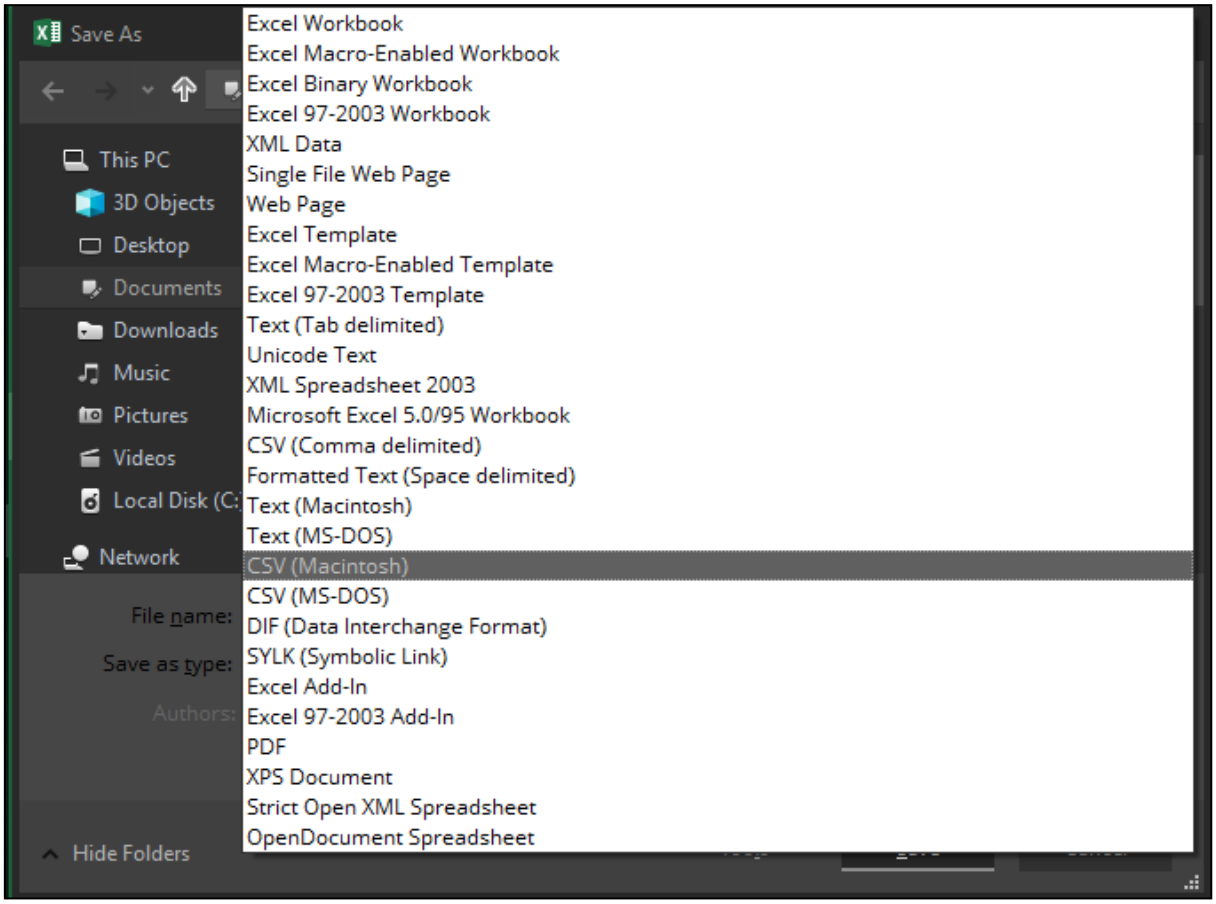
Untuk mengupload data, diperlukan format data yang berbeda, yaitu dengan format .csv

Cara:

- Pilih Save As lalu di beri nama Weather

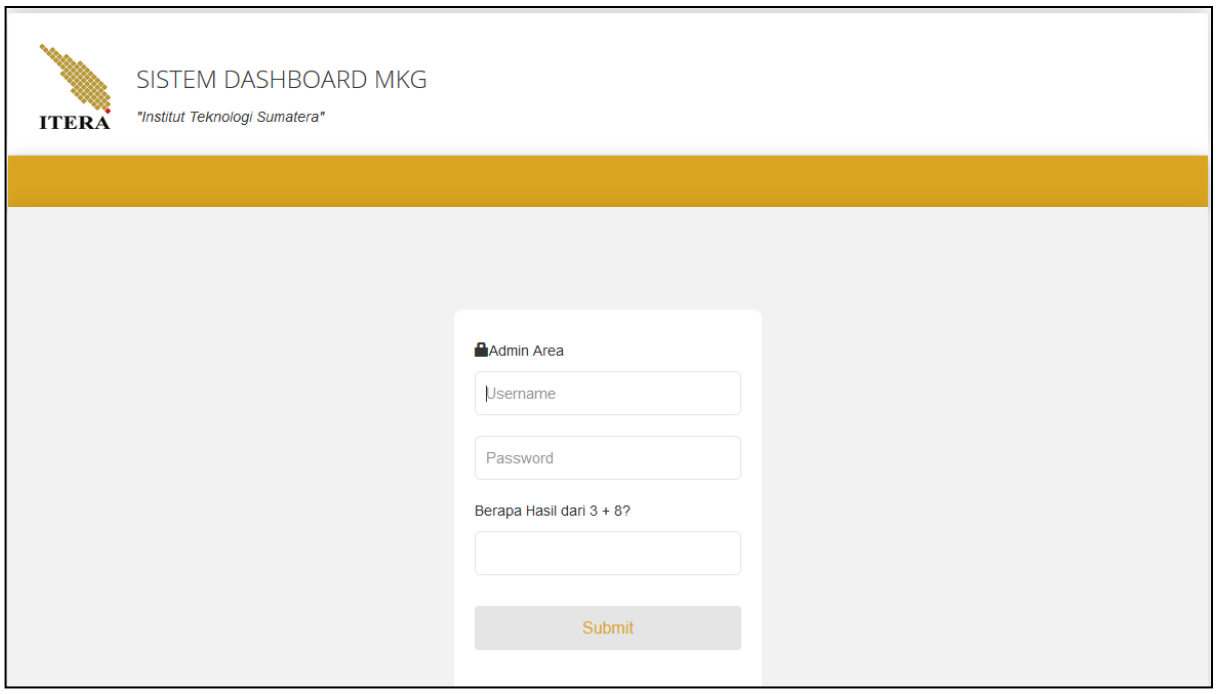


- Pilih format CSV (Machintos) lalu klik Save

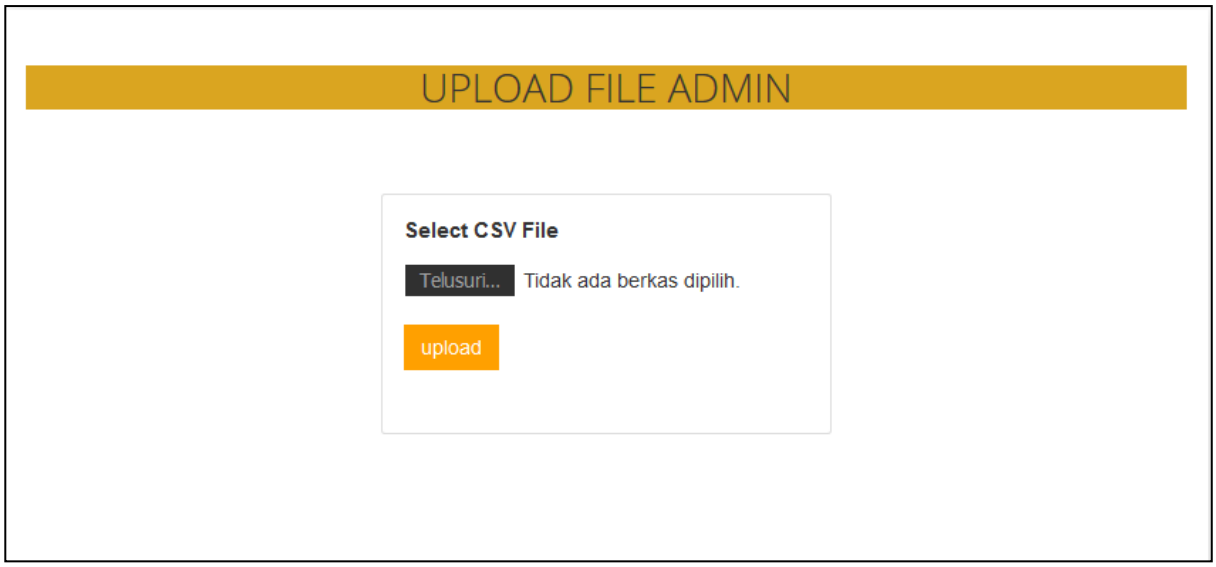


6. **Upload ke Dashboar MKG**
   Cara mengupload file Weather.csv ke Dashboard MKG

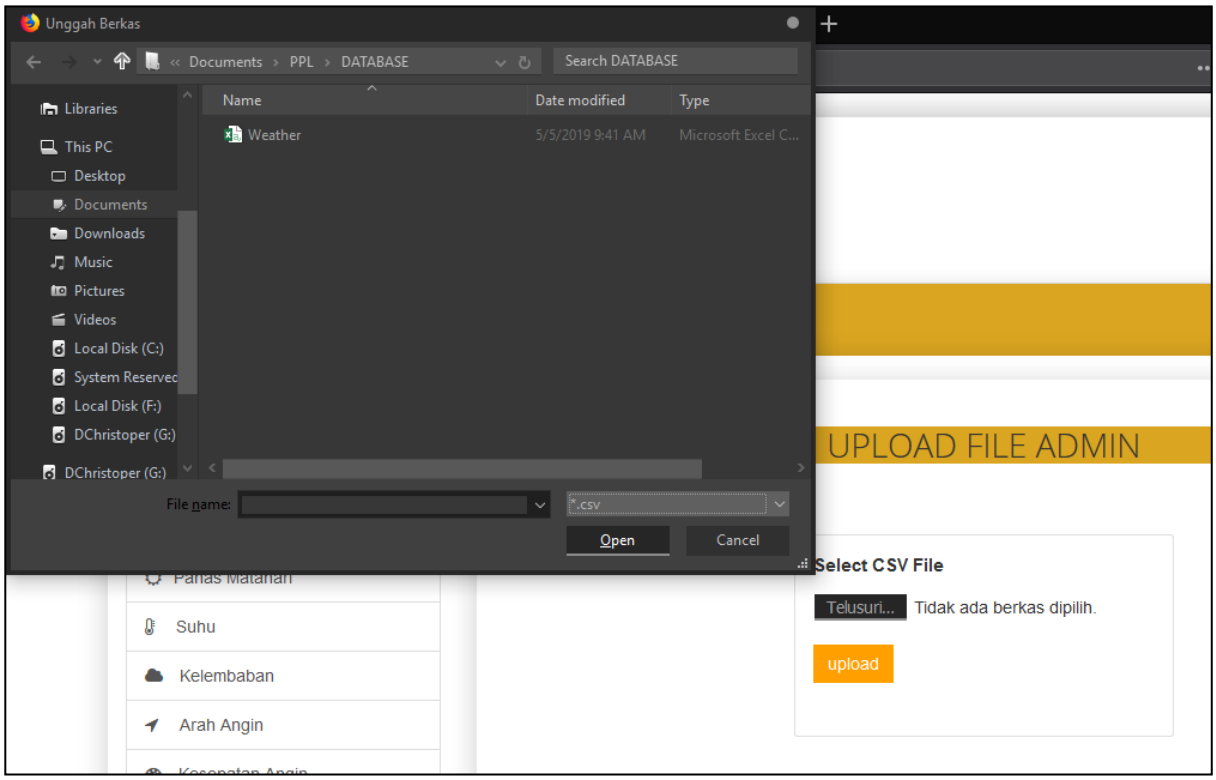
   Cara :
   - Buka terlebih dahulu halaman Dashboard MKG pada browser lalu login



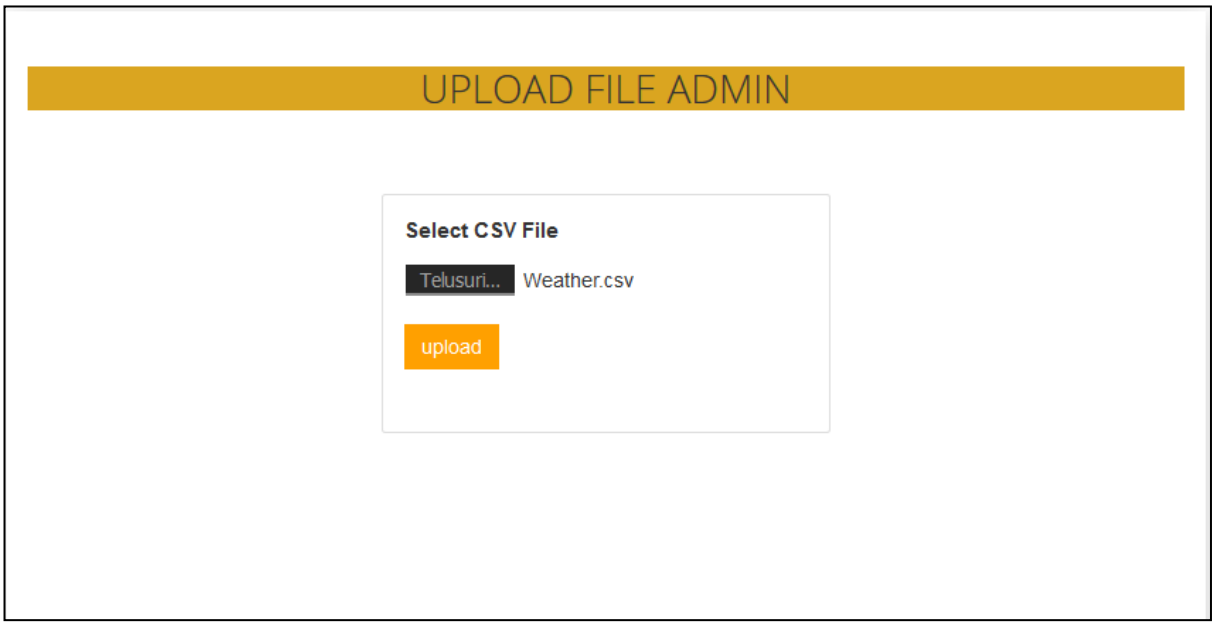
- Setelah login, anda akan diarah kan ke halaman upload.
  Klik Telusuri



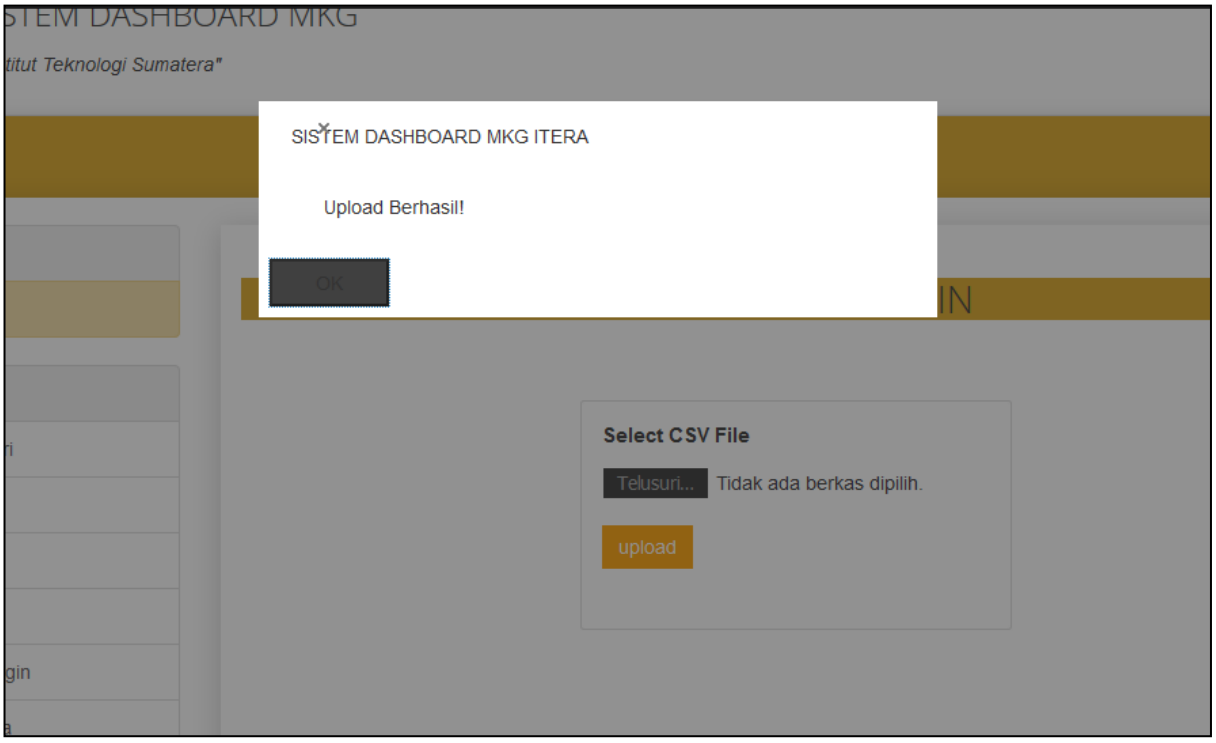
- Lalu pilih file yang telah kita olah yaitu Weather.csv



- Setelah file dipilih lalu klik Upload



- Maka, Upload Berhasil!



*Setelah data berhasil diupload, maka data baru akan muncul pada grafik.