Spreadsheets mini projects

Converting measures

Dataset: Weather

A1 | Timestamp

	A	B	C	D	E
1	Timestamp	Temperature	Precipitation Total	Wind Speed	Wind Direction [10 m]
2	2020-08-20T00:00:00	69.994736	0	8.5248	89.99999
3	2020-08-20T01:00:00	67.51074	0	8.673356	100.61965
4	2020-08-20T02:00:00	65.20673	0	8.08909	107.241455
5	2020-08-20T03:00:00	62.722736	0	8.014169	111.44774
6	2020-08-20T04:00:00	60.760735	0	7.5066204	117.474434
7	2020-08-20T05:00:00	58.096737	0	7.168091	131.98721
8	2020-08-20T06:00:00	59.842735	0	5.8668513	129.47246
9	2020-08-20T07:00:00	60.814735	0	4.9553266	143.74615
10	2020-08-20T08:00:00	66.26874	0	5.1725526	168.11134
11	2020-08-20T09:00:00	72.83874	0	6.6600003	196.26021
12	2020-08-20T10:00:00	77.78874	0	7.2713056	208.44293
13	2020-08-20T11:00:00	82.59474	0	8.726379	211.26373
14	2020-08-20T12:00:00	85.45673	0	11.973191	212.27565
15	2020-08-20T13:00:00	87.05874	0	15.81438	212.61925
16	2020-08-20T14:00:00	88.13873	0	16.551136	213.17851
17	2020-08-20T15:00:00	88.94873	0	16.357048	217.05653
18	2020-08-20T16:00:00	89.36273	0	15.823352	225
19	2020-08-20T17:00:00	89.32674	0	15.611131	233.32565
20	2020-08-20T18:00:00	88.69673	0	15.861428	240.85193

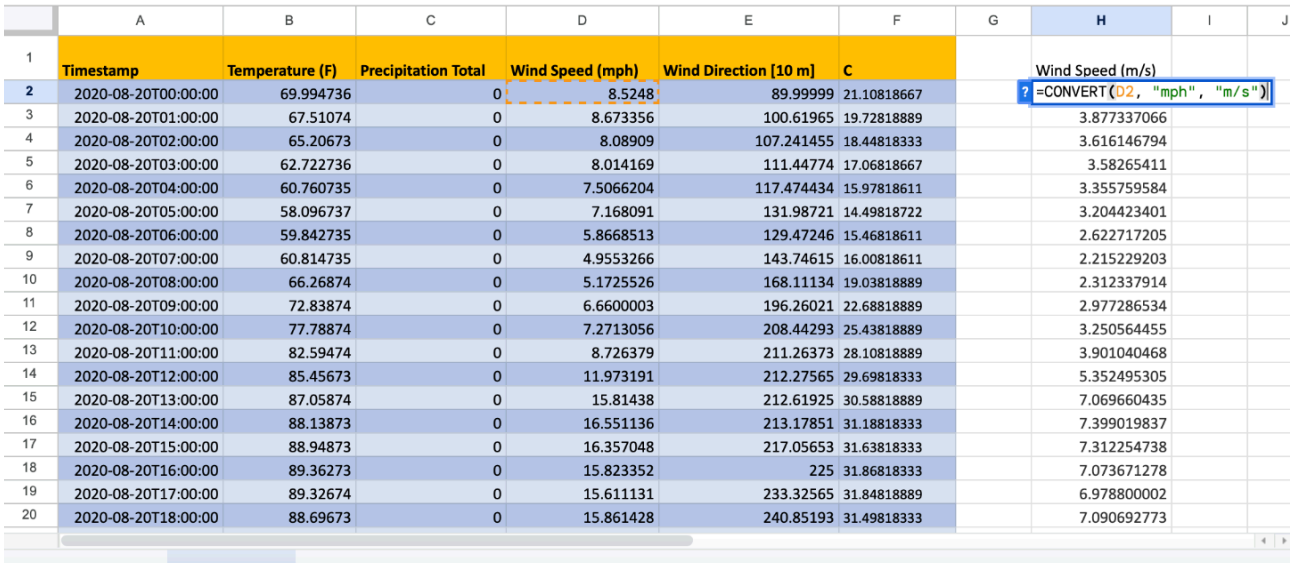
Task 1: Convert temperature measurement from Fahrenheit to Celsius

F2 | =CONVERT(B2,"F","C")

	A	B	C	D	E	F	G
1	Timestamp	Temperature	Precipitation Total	Wind Speed	Wind Direction [10 m]	Tem…	
2	2020-08-20T00:00:00	69.994736	0	8.5248	89.99999	=CONVERT(B2,"F","C")	
3	2020-08-20T01:00:00	67.51074	0	8.673356	100.61965	19.72818889	
4	2020-08-20T02:00:00	65.20673	0	8.08909	107.241455	18.44818333	
5	2020-08-20T03:00:00	62.722736	0	8.014169	111.44774	17.06818667	
6	2020-08-20T04:00:00	60.760735	0	7.5066204	117.474434	15.97818611	
7	2020-08-20T05:00:00	58.096737	0	7.168091	131.98721	14.49818722	
8	2020-08-20T06:00:00	59.842735	0	5.8668513	129.47246	15.46818611	
9	2020-08-20T07:00:00	60.814735	0	4.9553266	143.74615	16.00818611	
10	2020-08-20T08:00:00	66.26874	0	5.1725526	168.11134	19.03818889	
11	2020-08-20T09:00:00	72.83874	0	6.6600003	196.26021	22.68818889	
12	2020-08-20T10:00:00	77.78874	0	7.2713056	208.44293	25.43818889	
13	2020-08-20T11:00:00	82.59474	0	8.726379	211.26373	28.10818889	
14	2020-08-20T12:00:00	85.45673	0	11.973191	212.27565	29.69818333	
15	2020-08-20T13:00:00	87.05874	0	15.81438	212.61925	30.58818889	
16	2020-08-20T14:00:00	88.13873	0	16.551136	213.17851	31.18818333	
17	2020-08-20T15:00:00	88.94873	0	16.357048	217.05653	31.63818333	
18	2020-08-20T16:00:00	89.36273	0	15.823352	225	31.86818333	
19	2020-08-20T17:00:00	89.32674	0	15.611131	233.32565	31.84818889	
20	2020-08-20T18:00:00	88.69673	0	15.861428	240.85193	31.49818333	

21.10818667

Task 2: Try converting the wind speed in Column D from miles per hour (mph) to meters per second (m/s).



	A	B	C	D	E	F	G	H	I	J
1	Timestamp	Temperature (F)	Precipitation Total	Wind Speed (mph)	Wind Direction [10 m]	C		Wind Speed (m/s)		
2	2020-08-20T00:00:00	69.994736	0	8.5248	89.99999	21.10818667		=CONVERT(D2, "mph", "m/s")		
3	2020-08-20T01:00:00	67.51074	0	8.673356	100.61965	19.72818889		3.877337066		
4	2020-08-20T02:00:00	65.20673	0	8.08909	107.241455	18.44818333		3.616146794		
5	2020-08-20T03:00:00	62.722736	0	8.014169	111.44774	17.06818667		3.58265411		
6	2020-08-20T04:00:00	60.760735	0	7.5066204	117.474434	15.97818611		3.355759584		
7	2020-08-20T05:00:00	58.096737	0	7.168091	131.98721	14.49818722		3.204423401		
8	2020-08-20T06:00:00	59.842735	0	5.8668513	129.47246	15.46818611		2.622717205		
9	2020-08-20T07:00:00	60.814735	0	4.9553266	143.74615	16.00818611		2.215229203		
10	2020-08-20T08:00:00	66.26874	0	5.1725526	168.11134	19.03818889		2.312337914		
11	2020-08-20T09:00:00	72.83874	0	6.6600003	196.26021	22.68818889		2.977286534		
12	2020-08-20T10:00:00	77.78874	0	7.2713056	208.44293	25.43818889		3.250564455		
13	2020-08-20T11:00:00	82.59474	0	8.726379	211.26373	28.10818889		3.901040468		
14	2020-08-20T12:00:00	85.45673	0	11.973191	212.27565	29.69818333		5.352495305		
15	2020-08-20T13:00:00	87.05874	0	15.81438	212.61925	30.58818889		7.069660435		
16	2020-08-20T14:00:00	88.13873	0	16.551136	213.17851	31.18818333		7.399019837		
17	2020-08-20T15:00:00	88.94873	0	16.357048	217.05653	31.63818333		7.312254738		
18	2020-08-20T16:00:00	89.36273	0	15.823352	225	31.86818333		7.073671278		
19	2020-08-20T17:00:00	89.32674	0	15.611131	233.32565	31.84818889		6.978800002		
20	2020-08-20T18:00:00	88.69673	0	15.861428	240.85193	31.49818333		7.090692773		

Dataset:

A	B	C	D	E	F
First	**Last**	**Month**	**Day**	**Year**	
George	Washington	April	30	1789	
John	Adams	March	4	1797	
Thomas	Jefferson	March	4	1801	
James	Madison	March	4	1809	
James	Monroe	March	4	1817	
John Quincy	Adams	March	4	1825	
Andrew	Jackson	March	4	1829	
Martin	Van Buren	March	4	1837	
William Henry	Harrison	March	4	1841	
John	Tyler	April	4	1841	
James K.	Polk	March	4	1845	
Zachary	Taylor	March	4	1849	
Millard	Fillmore	July	9	1850	
Franklin	Pierce	March	4	1853	

Combining data from two cells

Task 1: Combine the two sets of names in columns First Name and Last Name in a new column called Full Name.

F2 =CONCATENATE(A2, " ",B2)

	A	B	C	D	E	F
1	**irst**	**Last**	**Month**	**Day**	**Year**	**Full name**
2	eorge	Washington	April	30	178	=CONCATENATE(A2, " ",B2)
3	ohn	Adams	March	4	1797	John Adams
4	homas	Jefferson	March	4	1801	Thomas Jefferson
5	ames	Madison	March	4	1809	James Madison
6	ames	Monroe	March	4	1817	James Monroe
7	ohn Quincy	Adams	March	4	1825	John Quincy Adams
8	ndrew	Jackson	March	4	1829	Andrew Jackson
9	Martin	Van Buren	March	4	1837	Martin Van Buren
10	William Henry	Harrison	March	4	1841	William Henry Harrison
11	ohn	Tyler	April	4	1841	John Tyler
12	ames K.	Polk	March	4	1845	James K. Polk
13	achary	Taylor	March	4	1849	Zachary Taylor
14	Millard	Fillmore	July	9	1850	Millard Fillmore
15	ranklin	Pierce	March	4	1853	Franklin Pierce
16						

Combining data from three cells

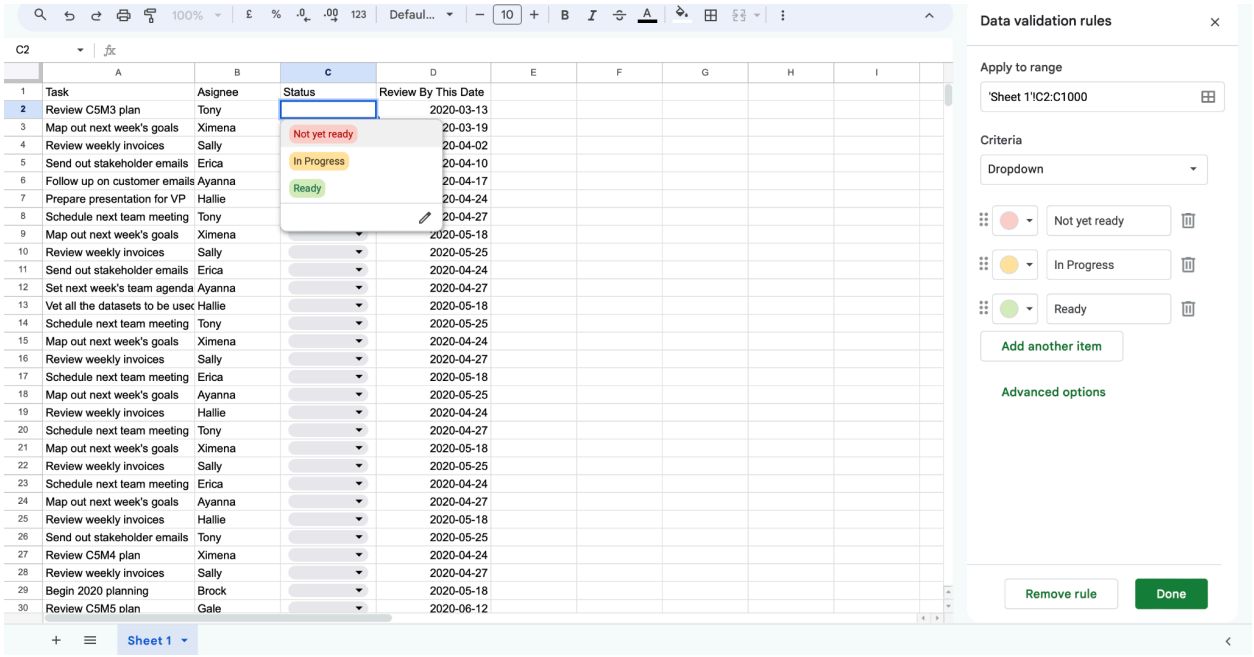
Task 2: Combine the **month, day, and year** into a single data value: **Date**

G2 =CONCATENATE(C2," ",D2,",","," ",E2)

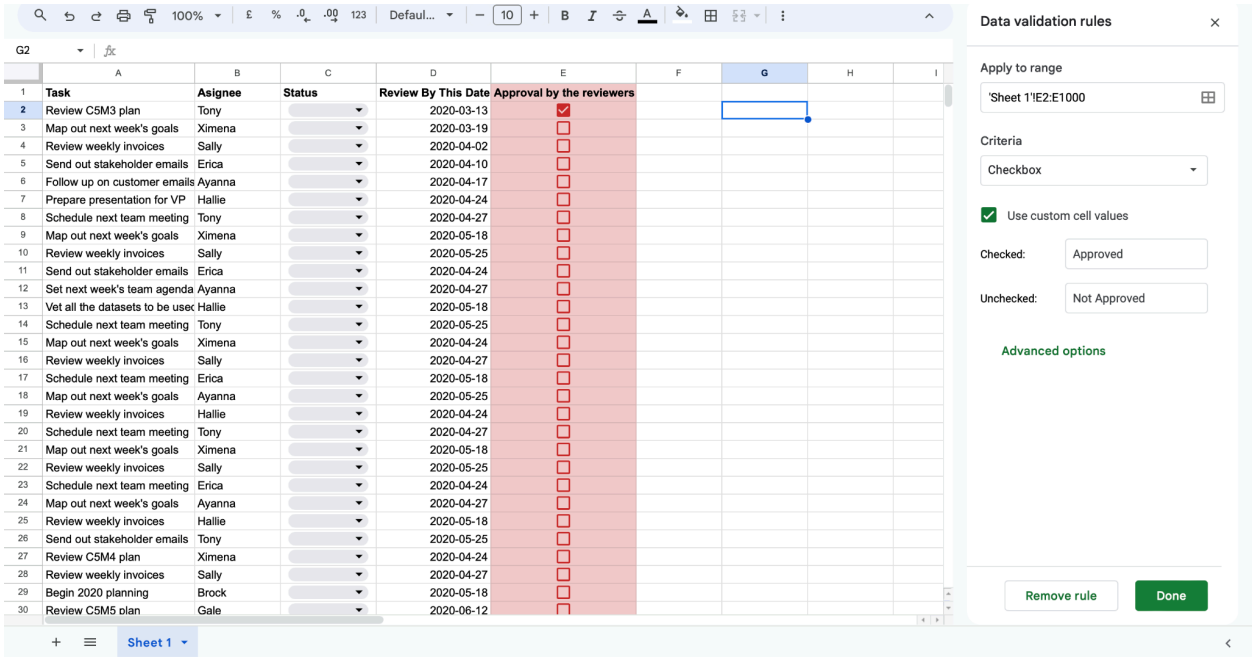
	A	B	C	D	E	F	G
1	**First**	**Last**	**Month**	**Day**	**Year**	**Full name**	**Date**
2	George	Washington	April	30	1789	George Washington	April 30, 1789
3	John	Adams	March	4	1797	John Adams	March 4, 1797
4	Thomas	Jefferson	March	4	1801	Thomas Jefferson	March 4, 1801
5	James	Madison	March	4	1809	James Madison	March 4, 1809
6	James	Monroe	March	4	1817	James Monroe	March 4, 1817
7	John Quincy	Adams	March	4	1825	John Quincy Adams	March 4, 1825
8	Andrew	Jackson	March	4	1829	Andrew Jackson	March 4, 1829
9	Martin	Van Buren	March	4	1837	Martin Van Buren	March 4, 1837
10	William Henry	Harrison	March	4	1841	William Henry Harrison	March 4, 1841
11	John	Tyler	April	4	1841	John Tyler	April 4, 1841
12	James K.	Polk	March	4	1845	James K. Polk	March 4, 1845
13	Zachary	Taylor	March	4	1849	Zachary Taylor	March 4, 1849
14	Millard	Fillmore	July	9	1850	Millard Fillmore	July 9, 1850
15	Franklin	Pierce	March	4	1853	Franklin Pierce	March 4, 1853
16							

Data validation

Task 1: Making a Drop up menu for the status of the project that includes multiple options.



Task 2: Creating customs checkboxes (Approved and Not approved)



LEN, LEFT, RIGHT and FIND

Dataset: New york city bike trip data

C	D	E	F	G	H	I	J	K	L
starttime	stoptime	start station id	start station name	start station latitu	start station	end station id	end station nai	end station lati	end station l
2017-09-01 00:02:01	2017-09-01 00:08:05	3183	Exchange Place	40.7162469	-74.0334588	3276	Marin Light Rai	40.71458404	-74.042817(
2017-09-01 00:08:12	2017-09-01 00:14:09	3187	Warren St	40.7211236	-74.0380509	3199	Newport Pkwy	40.7287448	-74.032108
2017-09-01 0:10:02	2017-09-01 00:17:24	3195	Sip Ave	40.73074263	-74.0637838	3280	Astor Place	40.7192822	-74.071261
2017-09-01 00:10:11	2017-09-01 00:25:46	3272	Jersey & 3rd	40.72333159	-74.0459525	3207	Oakland Ave	40.7376037	-74.05247
2017-09-01 00:10:16	2017-09-01 00:25:48	3272	Jersey & 3rd	40.72333159	-74.0459525	3207	Oakland Ave	40.7376037	-74.05247
2017-09-01 00:15:32	2017-09-01 00:22:26	3186	Grove St PATH	40.71958612	-74.0431174	3480	WS Don't Use	0	
2017-09-01 00:15:32	2017-09-01 00:25:58	3194	McGinley Square	40.72533993	-74.0676221	3194	McGinley Squa	40.72533993	-74.067622
2017-09-01 00:36:20	2017-09-01 00:39:19	3183	Exchange Place	40.7162469	-74.0334588	3214	Essex Light Rail	40.7127742	-74.03648
2017-09-01 00:38:42	2017-09-01 00:48:00	3183	Exchange Place	40.7162469	-74.0334588	3199	Newport Pkwy	40.7287448	-74.032108
2017-09-01 00:40:11	2017-09-01 00:43:52	3187	Warren St	40.7211236	-74.0380509	3270	Jersey & 6th St	40.72528911	-74.045571(
2017-09-01 01:24:28	2017-09-01 01:27:02	3272	Jersey & 3rd	40.72333159	-74.0459525	3278	Monmouth and	40.72568548	-74.048790
2017-09-01 02:05:11	2017-09-01 02:18:41	3206	Hilltop	40.7311689	-74.0575736	3281	Leonard Gordo	40.74590997	-74.057271
2017-09-01 02:34:07	2017-09-01 02:35:11	3272	Jersey & 3rd	40.72333159	-74.0459525	3270	Jersey & 6th St	40.72528911	-74.045571(
2017-09-01 02:34:54	2017-09-01 02:41:20	3199	Newport Pkwy	40.7287448	-74.0321082	3203	Hamilton Park	40.72759597	-74.044247
2017-09-01 04:07:27	2017-09-01 04:22:46	3183	Exchange Place	40.7162469	-74.0334588	3190	Garfield Ave St	40.71046702	-74.07003
2017-09-01 04:32:31	2017-09-01 04:42:15	3191	Union St	40.7182113	-74.0836394	3195	Sip Ave	40.73074263	-74.063783
2017-09-01 04:38:38	2017-09-01 04:48:16	3190	Garfield Ave Station	40.71046702	-74.0700388	3186	Grove St PATH	40.71958612	-74.043117
2017-09-01 05:16:52	2017-09-01 05:34:08	3207	Oakland Ave	40.7376037	-74.0524783	3185	City Hall	40.7177325	-74.0438
2017-09-01 05:18:41	2017-09-01 05:21:13	3267	Morris Canal	40.71241882	-74.0385255	3183	Exchange Place	40.7162469	-74.03345
2017-09-01 05:20:14	2017-09-01 05:22:04	3279	Dixon Mills	40.72163014	-74.0499678	3186	Grove St PATH	40.71958612	-74.043117
2017-09-01 05:26:32	2017-09-01 05:32:15	3193	Lincoln Park	40.7246051	-74.0784059	3195	Sip Ave	40.73074263	-74.063783
2017-09-01 05:29:24	2017-09-01 05:45:38	3198	Heights Elevator	40.74871595	-74.0404433	3183	Exchange Place	40.7162469	-74.03345
2017-09-01 05:41:23	2017-09-01 05:45:54	3203	Hamilton Park	40.72759597	-74.0442473	3186	Grove St PATH	40.71958612	-74.043117
2017-09-01 05:45:05	2017-09-01 05:49:05	3186	Grove St PATH	40.71958612	-74.0431174	3269	Brunswick & 6t	40.72601173	-74.050388
2017-09-01 05:46:29	2017-09-01 05:51:29	3207	Oakland Ave	40.7376037	-74.0524783	3195	Sip Ave	40.73074263	-74.063783
2017-09-01 05:54:28	2017-09-01 05:56:32	3272	Jersey & 3rd	40.72333159	-74.0459525	3273	Manila & 1st	40.72165072	-74.042884
2017-09-01 06:00:14	2017-09-01 06:12:34	3195	Sip Ave	40.73074263	-74.0637838	3189	West Side Light	40.714402	-74.08877
2017-09-01 06:03:44	2017-09-01 06:06:08	3279	Dixon Mills	40.72163014	-74.0499678	3186	Grove St PATH	40.71958612	-74.043117
2017-09-01 06:04:39	2017-09-01 06:08:08	3203	Hamilton Park	40.72759597	-74.0442473	3186	Grove St PATH	40.71958612	-74.043117
2017-09-01 06:05:18	2017-09-01 06:08:56	3269	Brunswick & 6th	40.72601173	-74.0503889	3186	Grove St PATH	40.71958612	-74.043117

Task 1: split in date and time strings from **starttime**

a) I started Finding the length of the string using **LEN: =LEN(C2)-->19**
Formula was extended across the column

b) I used **FIND** to locate specific characters in the strings to figure out where the dates end: **=FIND(“ ”, C2) →11**

c) The timestamp substring will start at **character 12**. It used **LEFT** and **RIGHT** functions to select the parts of the string to isolate in a new column.

Date =LEFT(D2,11)

B2 =LEFT(D2,11)

	A	B	C	D
1	tripduration	date (starttime)	Time (starttime)	starttime
2	364	2017-09-01		2017-09-01 00:02:01
3	357	2017-09-01		2017-09-01 00:08:12
4	432	2017-09-01		2017-09-01 0:10:02
5	934	2017-09-01		2017-09-01 00:10:11
6	932	2017-09-01		2017-09-01 00:10:16
7	414	2017-09-01		2017-09-01 00:15:32
8	625	2017-09-01		2017-09-01 00:15:32
9	178	2017-09-01		2017-09-01 00:36:20
10	557	2017-09-01		2017-09-01 00:38:42
11	220	2017-09-01		2017-09-01 00:40:11
12	153	2017-09-01		2017-09-01 01:24:28
13	809	2017-09-01		2017-09-01 02:05:11
14	64	2017-09-01		2017-09-01 02:34:07
15	386	2017-09-01		2017-09-01 02:34:54
16	918	2017-09-01		2017-09-01 04:07:27
17	583	2017-09-01		2017-09-01 04:32:31
18	578	2017-09-01		2017-09-01 04:38:38
19	1035	2017-09-01		2017-09-01 05:16:52
20	151	2017-09-01		2017-09-01 05:18:41
21	110	2017-09-01		2017-09-01 05:20:14
22	343	2017-09-01		2017-09-01 05:26:32
23	974	2017-09-01		2017-09-01 05:29:24
24	270	2017-09-01		2017-09-01 05:41:23
25	239	2017-09-01		2017-09-01 05:45:05
26	299	2017-09-01		2017-09-01 05:46:29
27	123	2017-09-01		2017-09-01 05:54:28
28	739	2017-09-01		2017-09-01 06:00:14
29	143	2017-09-01		2017-09-01 06:03:44
30	208	2017-09-01		2017-09-01 06:04:39
31	217	2017-09-01		2017-09-01 06:05:18

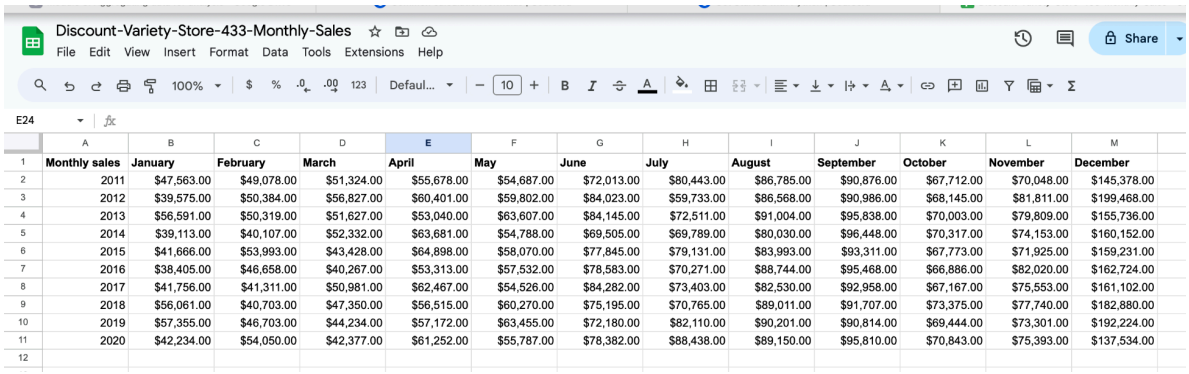
Time =RIGHT(D2,8)

C2 =RIGHT(D2,8)

	A	B	C	D
1	tripduration	date (starttime)	Time (starttime)	starttime
2	364	2017-09-01	00:02:01	2017-09-01 00:02:01
3	357	2017-09-01	00:08:12	2017-09-01 00:08:12
4	432	2017-09-01	0:10:02	2017-09-01 0:10:02
5	934	2017-09-01	00:10:11	2017-09-01 00:10:11
6	932	2017-09-01	00:10:16	2017-09-01 00:10:16
7	414	2017-09-01	00:15:32	2017-09-01 00:15:32
8	625	2017-09-01	00:15:32	2017-09-01 00:15:32
9	178	2017-09-01	00:36:20	2017-09-01 00:36:20
10	557	2017-09-01	00:38:42	2017-09-01 00:38:42
11	220	2017-09-01	00:40:11	2017-09-01 00:40:11
12	153	2017-09-01	01:24:28	2017-09-01 01:24:28
13	809	2017-09-01	02:05:11	2017-09-01 02:05:11
14	64	2017-09-01	02:34:07	2017-09-01 02:34:07
15	386	2017-09-01	02:34:54	2017-09-01 02:34:54
16	918	2017-09-01	04:07:27	2017-09-01 04:07:27
17	583	2017-09-01	04:32:31	2017-09-01 04:32:31
18	578	2017-09-01	04:38:38	2017-09-01 04:38:38
19	1035	2017-09-01	05:16:52	2017-09-01 05:16:52
20	151	2017-09-01	05:18:41	2017-09-01 05:18:41
21	110	2017-09-01	05:20:14	2017-09-01 05:20:14
22	343	2017-09-01	05:26:32	2017-09-01 05:26:32
23	974	2017-09-01	05:29:24	2017-09-01 05:29:24
24	270	2017-09-01	05:41:23	2017-09-01 05:41:23
25	239	2017-09-01	05:45:05	2017-09-01 05:45:05
26	299	2017-09-01	05:46:29	2017-09-01 05:46:29
27	123	2017-09-01	05:54:28	2017-09-01 05:54:28
28	739	2017-09-01	06:00:14	2017-09-01 06:00:14
29	143	2017-09-01	06:03:44	2017-09-01 06:03:44
30	208	2017-09-01	06:04:39	2017-09-01 06:04:39
31	217	2017-09-01	06:05:18	2017-09-01 06:05:18

Multiple calculations

Dataset: Sales data from a discount store chain



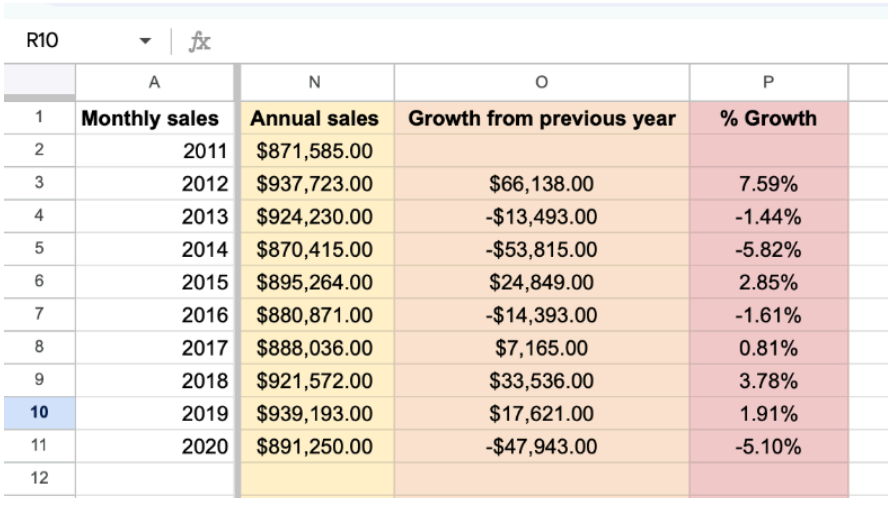
	A	B	C	D	E	F	G	H	I	J	K	L	M
1	Monthly sales	January	February	March	April	May	June	July	August	September	October	November	December
2	2011	$47,563.00	$49,078.00	$51,324.00	$55,678.00	$54,687.00	$72,013.00	$80,443.00	$86,785.00	$90,876.00	$67,712.00	$70,048.00	$145,378.00
3	2012	$39,575.00	$50,384.00	$56,827.00	$60,401.00	$59,802.00	$84,023.00	$59,733.00	$86,568.00	$90,986.00	$68,145.00	$81,811.00	$199,468.00
4	2013	$56,591.00	$50,319.00	$51,627.00	$53,040.00	$63,607.00	$84,145.00	$72,511.00	$91,004.00	$95,838.00	$70,003.00	$79,809.00	$155,736.00
5	2014	$39,113.00	$40,107.00	$52,332.00	$63,681.00	$54,788.00	$69,505.00	$69,789.00	$80,030.00	$96,448.00	$70,317.00	$74,153.00	$160,152.00
6	2015	$41,666.00	$53,993.00	$43,428.00	$64,898.00	$58,070.00	$77,845.00	$79,131.00	$83,993.00	$93,311.00	$67,773.00	$71,925.00	$159,231.00
7	2016	$38,405.00	$46,658.00	$40,267.00	$53,313.00	$57,532.00	$78,583.00	$70,271.00	$88,744.00	$95,468.00	$66,886.00	$82,020.00	$162,724.00
8	2017	$41,756.00	$41,311.00	$50,981.00	$62,467.00	$54,526.00	$84,282.00	$73,403.00	$82,530.00	$92,958.00	$67,167.00	$75,553.00	$161,102.00
9	2018	$56,061.00	$40,703.00	$47,350.00	$56,515.00	$60,270.00	$75,195.00	$70,765.00	$89,011.00	$91,707.00	$73,375.00	$77,740.00	$182,880.00
10	2019	$57,355.00	$46,703.00	$44,234.00	$57,172.00	$63,455.00	$72,180.00	$82,110.00	$90,201.00	$90,814.00	$69,444.00	$73,301.00	$192,224.00
11	2020	$42,234.00	$54,050.00	$42,377.00	$61,252.00	$55,787.00	$78,382.00	$88,438.00	$89,150.00	$95,810.00	$70,843.00	$75,393.00	$137,534.00
12													

Objective: Use the existing sales data to find any trend.

Task 1: Finding annual sales over the years 2011-2020.
=SUM(B2:M2) and formula was extended across the column

Task 2: Find the growth in annual sales from year to year.
=N3-N2 and formula was extended across the column

Task 3: Find the % Growth
=O3/N2, formatted as percentage and formula was extended across the column



	A	N	O	P
1	Monthly sales	Annual sales	Growth from previous year	% Growth
2	2011	$871,585.00		
3	2012	$937,723.00	$66,138.00	7.59%
4	2013	$924,230.00	-$13,493.00	-1.44%
5	2014	$870,415.00	-$53,815.00	-5.82%
6	2015	$895,264.00	$24,849.00	2.85%
7	2016	$880,871.00	-$14,393.00	-1.61%
8	2017	$888,036.00	$7,165.00	0.81%
9	2018	$921,572.00	$33,536.00	3.78%
10	2019	$939,193.00	$17,621.00	1.91%
11	2020	$891,250.00	-$47,943.00	-5.10%
12				

Task 4: To find the average sales by month to compare sales between months to check if there is a trend

=AVERAGE(B2:B11) and formula was extended across the row

Conditional formatting for color range

	A	B	C	D	E	F	G	H	I	J	K	L	M
1	**Monthly sales**	**January**	**February**	**March**	**April**	**May**	**June**	**July**	**August**	**September**	**October**	**November**	**December**
2	2011	$47,563.00	$49,078.00	$51,324.00	$55,678.00	$54,687.00	$72,013.00	$80,443.00	$86,785.00	$90,876.00	$67,712.00	$70,048.00	$145,378.00
3	2012	$39,575.00	$50,384.00	$56,827.00	$60,401.00	$59,802.00	$84,023.00	$59,733.00	$86,568.00	$90,986.00	$68,145.00	$81,811.00	$199,468.00
4	2013	$56,591.00	$50,319.00	$51,627.00	$53,040.00	$63,607.00	$84,145.00	$72,511.00	$91,004.00	$95,838.00	$70,003.00	$79,809.00	$155,736.00
5	2014	$39,113.00	$40,107.00	$52,332.00	$63,681.00	$54,788.00	$69,505.00	$69,789.00	$80,030.00	$96,448.00	$70,317.00	$74,153.00	$160,152.00
6	2015	$41,666.00	$53,993.00	$43,428.00	$64,898.00	$58,070.00	$77,845.00	$79,131.00	$83,993.00	$93,311.00	$67,773.00	$71,925.00	$159,231.00
7	2016	$38,405.00	$46,658.00	$40,267.00	$53,313.00	$57,532.00	$78,583.00	$70,271.00	$88,744.00	$95,468.00	$66,886.00	$82,020.00	$162,724.00
8	2017	$41,756.00	$41,311.00	$50,981.00	$62,467.00	$54,526.00	$84,282.00	$73,403.00	$82,530.00	$92,958.00	$67,167.00	$75,553.00	$161,102.00
9	2018	$56,061.00	$40,703.00	$47,350.00	$56,515.00	$60,270.00	$75,195.00	$70,765.00	$89,011.00	$91,707.00	$73,375.00	$77,740.00	$182,880.00
10	2019	$57,355.00	$46,703.00	$44,234.00	$57,172.00	$63,455.00	$72,180.00	$82,110.00	$90,201.00	$90,814.00	$69,444.00	$73,301.00	$192,224.00
11	2020	$42,234.00	$54,050.00	$42,377.00	$61,252.00	$55,787.00	$78,382.00	$88,438.00	$89,150.00	$95,810.00	$70,843.00	$75,393.00	$137,534.00
12	**Average by month**	$46,031.90	$47,330.60	$48,074.70	$58,841.70	$58,252.40	$77,615.30	$74,659.40	$86,801.60	$93,421.60	$69,166.50	$76,175.30	$165,642.90
13													

**Summer months (August $86,801.60; September $93,421.60) and December ($165,642.90) have the highest average sales.*

Task 5: To find the minimum and maximum for average monthly sales.

=MIN(B12:M12)

=MAX(B12:M12)

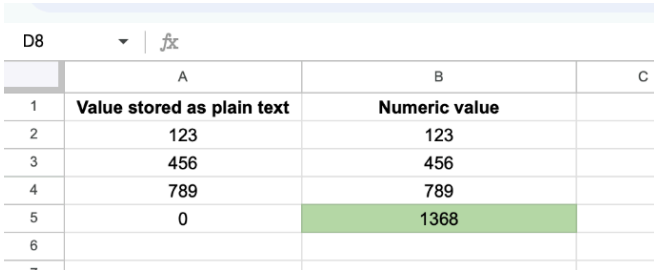
13			
14	**Lowest monthly Average**	$46,031.90	January
15	**Highest monthly Average**	$165,642.90	December
16			
17			

**For this store location, sales are strongest in December and weakest in January.*

Data cleaning

Task1: change text string to numeric value

=VALUE(A1:A4) and then =SUM(B2:B4)



D8

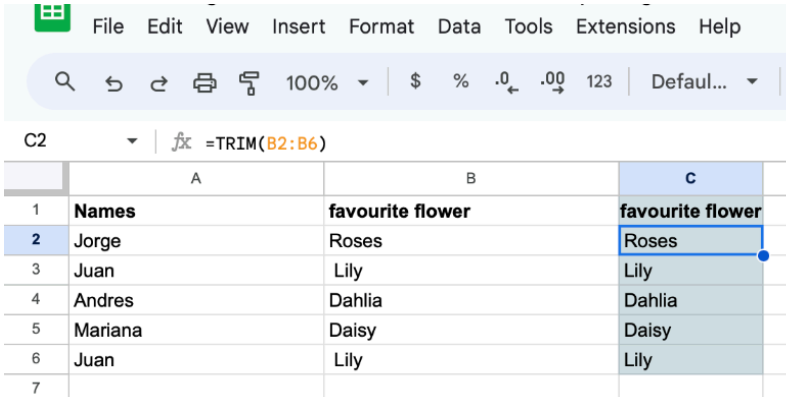
	A	B	C
1	**Value stored as plain text**	**Numeric value**	
2	123	123	
3	456	456	
4	789	789	
5	0	1368	
6			

Dataset:

	A	B
1	**Names**	**favourite flower**
2	Jorge	Roses
3	Juan	Lily
4	Andres	Dahlia
5	Mariana	Daisy
6	Juan	Lily
7		

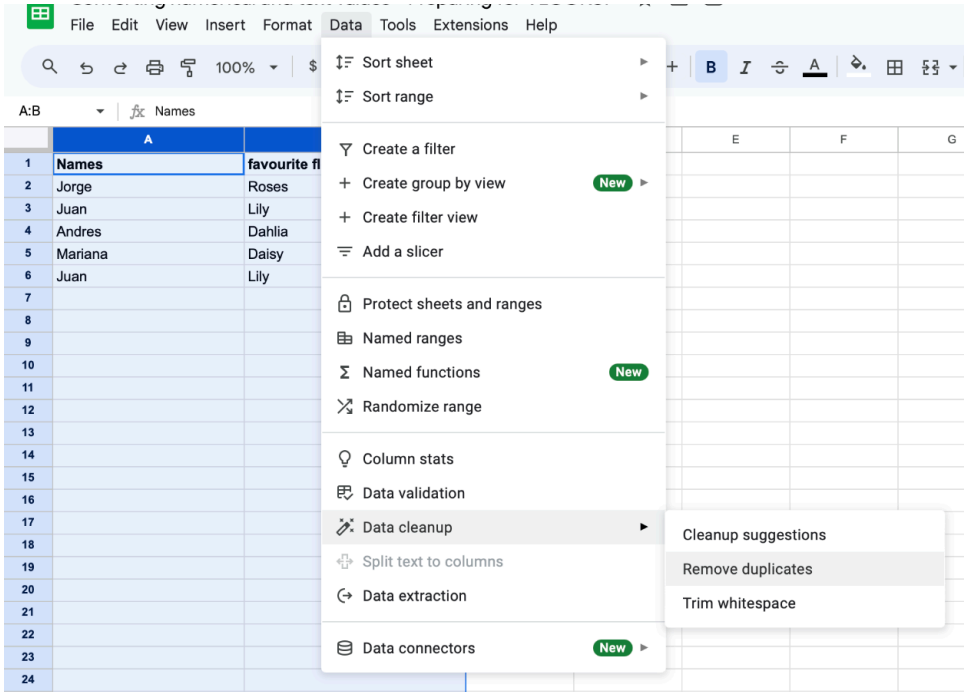
Task 1: Remove blank spaces from the dataset

=TRIM(B2:B6)



	A	B	C
1	**Names**	**favourite flower**	**favourite flower**
2	Jorge	Roses	Roses
3	Juan	Lily	Lily
4	Andres	Dahlia	Dahlia
5	Mariana	Daisy	Daisy
6	Juan	Lily	Lily
7			

Task 2: Remove duplicate



	A	B
1	**Names**	**favourite flower**
2	Jorge	Roses
3	Juan	Lily
4	Andres	Dahlia
5	Mariana	Daisy
6		