The data source contains 18 files in CSV format and for the analysis, I'll be using the files:
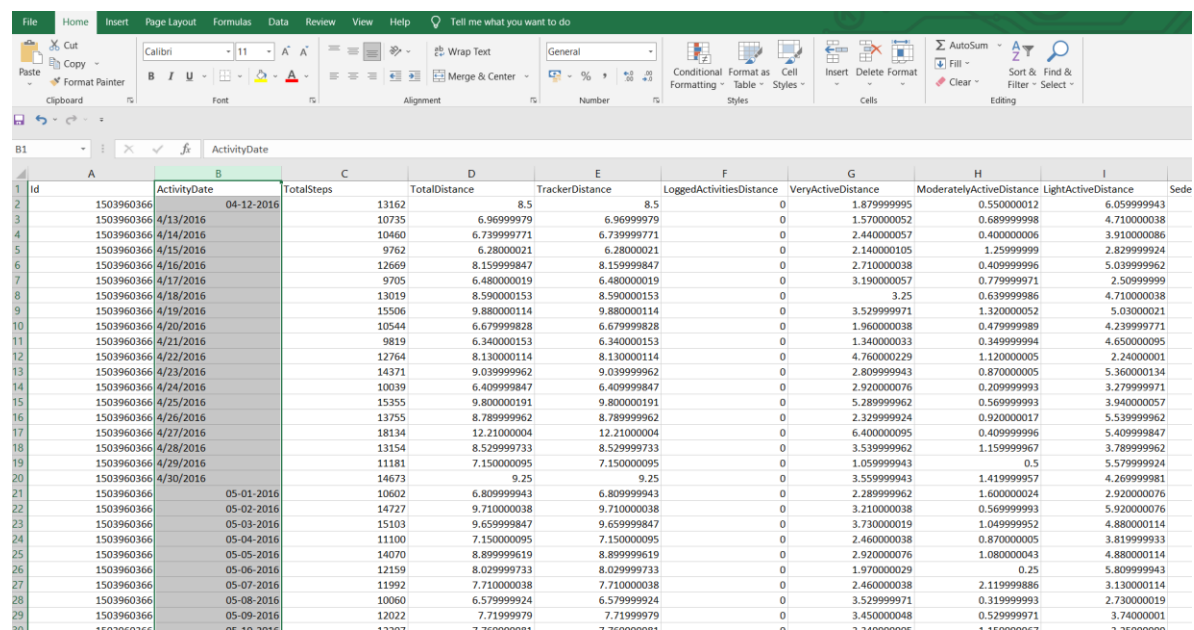
- dailyActivity_merged.csv
- hourlyCalories_merged.csv
- hourlyIntensities_merged.csv
- hourlySteps_merged.csv
- sleepDay_merged.csv

In the dailyActivity_merged.csv dataset, there's a date column with name 'ActivityDate' which is not in proper date format. There are two kinds of date formats in the dataset: mm-dd-yyyy format which is correct date format and the other one being mm/dd/yyyy whose datatype is 'Object'.

This is the first uncleaned data found during analysis. Since the dataset is a smaller one, I used Microsoft Excel to clean the data for date type.

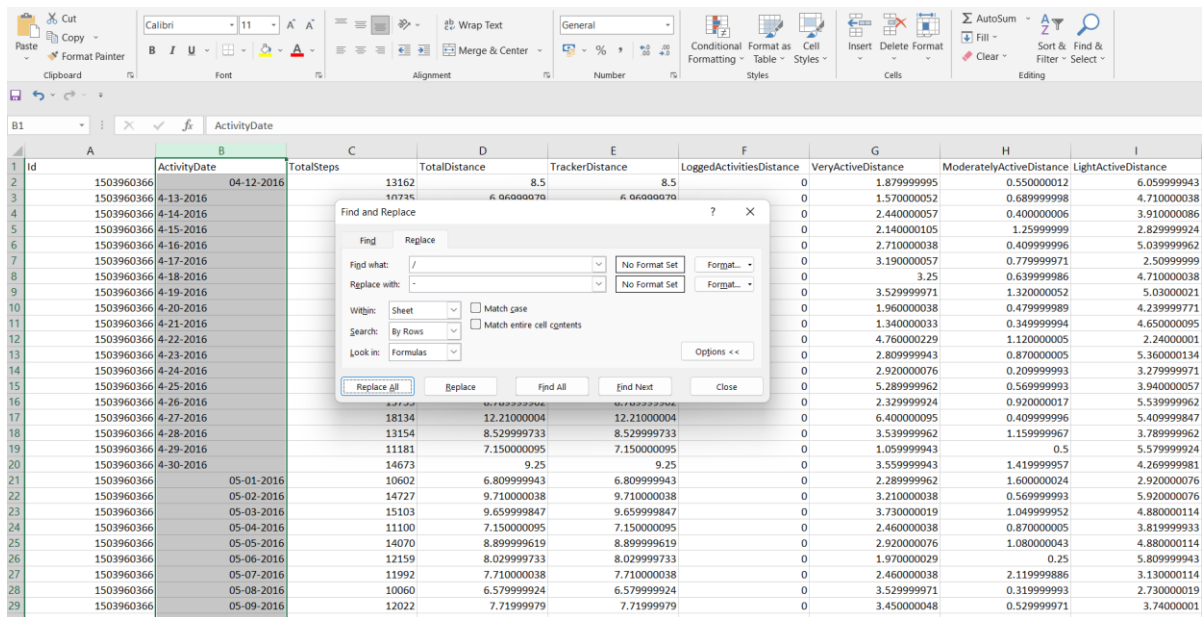The steps involved in cleaning the data are documented below:

Step-1: The column 'ActivityDate' data is presented and it can be seen that the data has been recorded in improper format.
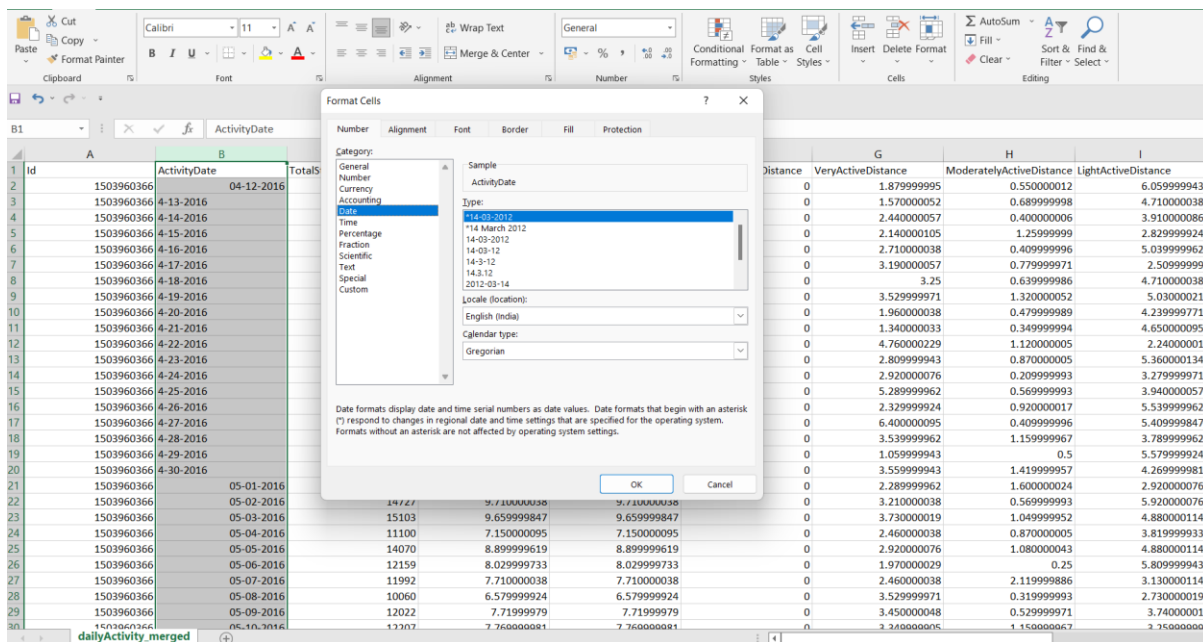

Step-2: Firstly, the improper date format containing – mm/dd/yyyy has been replaced by the proper format – mm-dd-yyyy using the 'Find and Replace tool'.

Step-3: After replacing the delimiters, the entire column's format will be changed from 'General' to 'Date'.

Step-4: After converting the 'ActivityDate' column to 'Date' format, we crosscheck the column with the MS Excel function "**=VALUE(B2)**" where B2 is the column holding the dates. We could see the some values are being generated for few cells which implies they are of 'Date' format while few cells throws an error '#VALUE!' which suggests that the data in the 'B' column are not yet been modified as actual date.
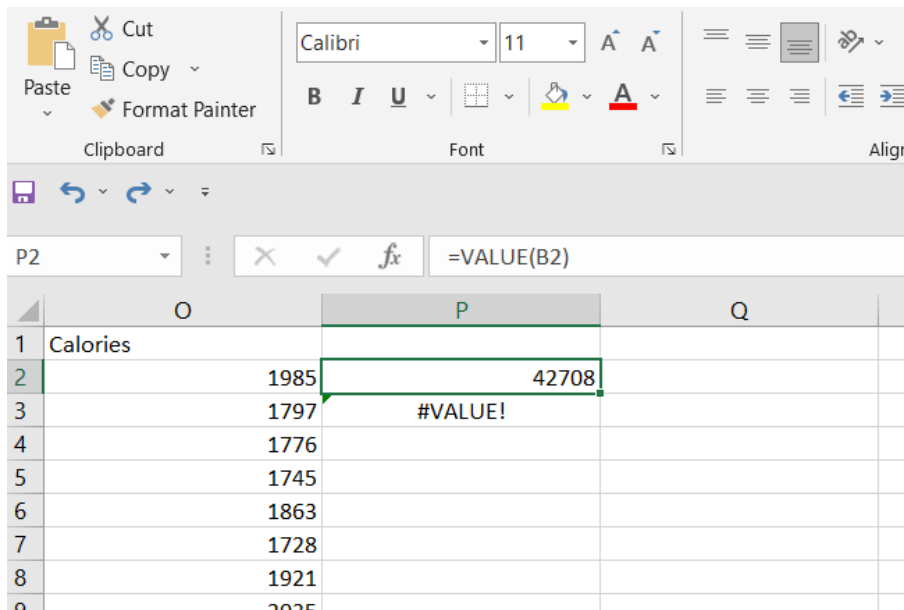
Step-5: Since, the data is still uncleaned, we need to make sure the column 'ActivityDate' is in proper data format. To do this, we select the whole column, and then click on 'Text to Columns' under 'Data' section. Under that we specify the delimiter to '-' which is the delimiter for the whole column and set the Column Data format to 'Date' – "MDY" in which the data is recorded.

Now, the data is cleaned. We can crosscheck whether the data is cleaned or not by repeating step-4.
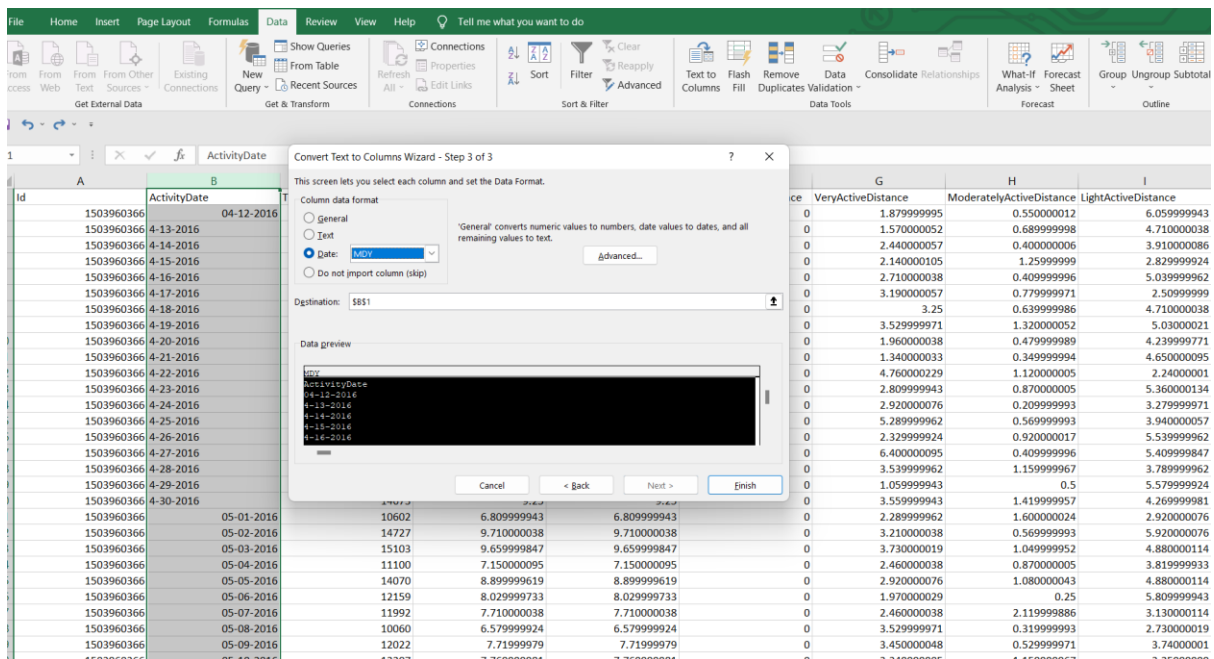
	A	B	C	D	E	F	G	H	
1	Id	ActivityDate	TotalSteps	TotalDistance	TrackerDistance	LoggedActivitiesDistance	VeryActiveDistance	ModeratelyActiveDistance	LightActive
2	1503960366	12-04-2016	13162	8.5	8.5	0	1.879999995	0.550000012	
3	1503960366	13-04-2016	10735	6.96999979	6.96999979	0	1.570000052	0.689999998	
4	1503960366	14-04-2016	10460	6.739999771	6.739999771	0	2.440000057	0.400000006	
5	1503960366	15-04-2016	9762	6.28000021	6.28000021	0	2.140000105	1.25999999	
6	1503960366	16-04-2016	12669	8.159999847	8.159999847	0	2.710000038	0.409999996	
7	1503960366	17-04-2016	9705	6.480000019	6.480000019	0	3.190000057	0.779999971	
8	1503960366	18-04-2016	13019	8.590000153	8.590000153	0	3.25	0.639999986	
9	1503960366	19-04-2016	15506	9.880000114	9.880000114	0	3.529999971	1.320000052	
10	1503960366	20-04-2016	10544	6.679999828	6.679999828	0	1.960000038	0.479999989	
11	1503960366	21-04-2016	9819	6.340000153	6.340000153	0	1.340000033	0.349999994	
12	1503960366	22-04-2016	12764	8.130000114	8.130000114	0	4.760000229	1.120000005	
13	1503960366	23-04-2016	14371	9.039999962	9.039999962	0	2.809999943	0.870000005	
14	1503960366	24-04-2016	10039	6.409999847	6.409999847	0	2.920000076	0.209999993	
15	1503960366	25-04-2016	15355	9.800000191	9.800000191	0	5.289999962	0.569999993	
16	1503960366	26-04-2016	13755	8.789999962	8.789999962	0	2.329999924	0.920000017	
17	1503960366	27-04-2016	18134	12.21000004	12.21000004	0	6.400000095	0.409999996	
18	1503960366	28-04-2016	13154	8.529999733	8.529999733	0	3.539999962	1.159999967	
19	1503960366	29-04-2016	11181	7.150000095	7.150000095	0	1.059999943	0.5	
20	1503960366	30-04-2016	14673	9.25	9.25	0	3.559999943	1.419999957	
21	1503960366	01-05-2016	10602	6.809999943	6.809999943	0	2.289999962	1.600000024	
22	1503960366	02-05-2016	14727	9.710000038	9.710000038	0	3.210000038	0.569999993	
23	1503960366	03-05-2016	15103	9.659999847	9.659999847	0	3.730000019	1.049999952	
24	1503960366	04-05-2016	11100	7.150000095	7.150000095	0	2.460000038	0.870000005	
25	1503960366	05-05-2016	14070	8.899999619	8.899999619	0	2.920000076	1.080000043	
26	1503960366	06-05-2016	12159	8.029999733	8.029999733	0	1.970000029	0.25	
27	1503960366	07-05-2016	11992	7.710000038	7.710000038	0	2.460000038	2.119999886	
28	1503960366	08-05-2016	10060	6.579999924	6.579999924	0	3.529999971	0.319999993	
29	1503960366	09-05-2016	12022	7.71999979	7.71999979	0	3.450000048	0.529999971	
30	1503960366	10-05-2016	12207	7.760000081	7.760000081	0	3.340000095	1.150000067	