

Pandas - Cleaning Data of Wrong Format

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Data of Wrong Format

Cells with data of wrong format can make it difficult, or even impossible, to analyze data.

To fix it, you have two options: remove the rows, or convert all cells in the columns into the same format.

Convert Into a Correct Format

In our Data Frame, we have two cells with the wrong format. Check out row 22 and 26, the 'Date' column should be a string that represents a date:

	Duration	Date	Pulse	Maxpulse	Calories
0	60	'2020/12/01'	110	130	409.1
1	60	'2020/12/02'	117	145	479.0
2	60	'2020/12/03'	103	135	340.0
3	45	'2020/12/04'	109	175	282.4
4	45	'2020/12/05'	117	148	406.0
5	60	'2020/12/06'	102	127	300.0
6	60	'2020/12/07'	110	136	374.0

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11	60	'2020/12/12'	100	120	250.7			
12	60	'2020/12/12'	100	120	250.7			
13	60	'2020/12/13'	106	128	345.3			
14	60	'2020/12/14'	104	132	379.3			
15	60	'2020/12/15'	98	123	275.0			
16	60	'2020/12/16'	98	120	215.2			
17	60	'2020/12/17'	100	120	300.0			
18	45	'2020/12/18'	90	112	NaN			
19	60	'2020/12/19'	103	123	323.0			
20	45	'2020/12/20'	97	125	243.0			
21	60	'2020/12/21'	108	131	364.2			
22	45	NaN	100	119	282.0			
23	60	'2020/12/23'	130	101	300.0			
24	45	'2020/12/24'	105	132	246.0			
25	60	'2020/12/25'	102	126	334.5			
26	60	20201226	100	120	250.0			
27	60	'2020/12/27'	92	118	241.0			
28	60	'2020/12/28'	103	132	NaN			
29	60	'2020/12/29'	100	132	280.0			
30	60	'2020/12/30'	102	129	380.3			
31	60	'2020/12/31'	92	115	243.0			

Let's try to convert all cells in the 'Date' column into dates.

Pandas has a to_datetime() method for this:

Example

Get your own Python Server

Convert to date:

```
import pandas as pd

df = pd.read_csv('data.csv')

df['Date'] = pd.to_datetime(df['Date'], format='mixed')

print(df.to_string())
```

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	Duration	Date	Pulse	Maxpulse	Calories
0	60	'2020/12/01'	110	130	409.1
1	60	'2020/12/02'	117	145	479.0
2	60	'2020/12/03'	103	135	340.0
3	45	'2020/12/04'	109	175	282.4
4	45	'2020/12/05'	117	148	406.0
5	60	'2020/12/06'	102	127	300.0
6	60	'2020/12/07'	110	136	374.0
7	450	'2020/12/08'	104	134	253.3
8	30	'2020/12/09'	109	133	195.1
9	60	'2020/12/10'	98	124	269.0
10	60	'2020/12/11'	103	147	329.3
11	60	'2020/12/12'	100	120	250.7
12	60	'2020/12/12'	100	120	250.7
13	60	'2020/12/13'	106	128	345.3
14	60	'2020/12/14'	104	132	379.3
15	60	'2020/12/15'	98	123	275.0
16	60	'2020/12/16'	98	120	215.2
17	60	'2020/12/17'	100	120	300.0
18	45	'2020/12/18'	90	112	NaN
19	60	'2020/12/19'	103	123	323.0
20	45	'2020/12/20'	97	125	243.0
21	60	'2020/12/21'	108	131	364.2
22	45	NaT	100	119	282.0
23	60	'2020/12/23'	130	101	300.0
24	45	'2020/12/24'	105	132	246.0
25	60	'2020/12/25'	102	126	334.5
26	60	'2020/12/26'	100	120	250.0
27	60	'2020/12/27'	92	118	241.0
28	60	'2020/12/28'	103	132	NaN
29	60	'2020/12/29'	100	132	280.0
30	60	'2020/12/30'	102	129	380.3
31	60	'2020/12/31'	92	115	243.0



Removing Rows

The result from the converting in the example above gave us a NaT value, which can be handled as a NULL value, and we can remove the row by using the <a href="https://dream.ncbi.nlm.n

Example

Remove rows with a NULL value in the "Date" column:

```
df.dropna(subset=['Date'], inplace = True)
```

Try it Yourself »

Exercise?

What is a correct method for converting a column into date formats?

- O Date()
- O to_datetime()
- O datetime()

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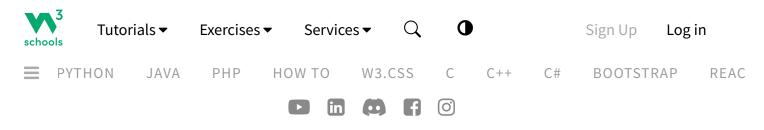
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