



Pandas - Removing Duplicates

[< Previous](#)
[Next >](#)

Discovering Duplicates

Duplicate rows are rows that have been registered more than one time.

| | 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 | NaN | 100 | 119 | 282.0 |
| 23 | 60 | '2020/12/23' | 130 | 101 | 300.0 |



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|----|----|--------------|------------|-----|--------|------|-----|--------|--------|---|
| 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 | | | | | |

By taking a look at our test data set, we can assume that row 11 and 12 are duplicates.

To discover duplicates, we can use the `df.duplicated()` method.

The `df.duplicated()` method returns a Boolean values for each row:

Example

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Returns `True` for every row that is a duplicate, otherwise `False` :

```
print(df.duplicated())
```

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Removing Duplicates

To remove duplicates, use the `df.drop_duplicates()` method.

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```
df.drop_duplicates(inplace = True)
```

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Remember: The (**inplace = True**) will make sure that the method does NOT return a *new* DataFrame, but it will remove all duplicates from the *original* DataFrame.

Test Yourself With Exercises

Exercise:

Insert the correct syntax for removing rows with empty cells.

```
df.      ()
```

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