

# How do I fill NA values for multiple columns in Pandas?

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## RECOMMENDED CITATION

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The process of filling NA values for multiple columns in Pandas involves identifying the columns with missing values, selecting a method for filling the NA values (such as using a fixed value or filling with the previous or next value), and applying the chosen method to the specified columns using the `.fillna()` function. This allows for efficient data cleaning and preparation for further analysis.

## Fill NA Values for Multiple Columns in Pandas

The `pandas` function is useful for filling in missing values in columns of a `pandas DataFrame`.

This tutorial provides several examples of how to use this function to fill in missing values for multiple columns of the following `pandas DataFrame`:

```
import pandas as pd
import numpy as np

#create DataFrame
df = pd.DataFrame({'team': ,
'points': ,
'assists': ,
'rebounds': })

#view DataFrame
print(df)

team points assists rebounds
```

```
0 A 25.0 5.0 11
1 NaN NaN 7.0 8
2 B 15.0 7.0 10
3 B NaN 9.0 6
4 B 19.0 12.0 6
5 C 23.0 9.0 5
6 C 25.0 NaN 9
7 C 29.0 4.0 12
```

Example 1: Fill in Missing Values of All Columns

The following code shows how to fill in missing values with a zero for *all* columns in the DataFrame:

```
#replace all missing values with zero
df.fillna(value=0, inplace=True)
```

```
#view DataFrame
print(df)
```

```
team points assists rebounds
```

```
0 A 25.0 5.0 11
1 0 0.0 7.0 8
2 B 15.0 7.0 10
3 B 0.0 9.0 6
```

4 B 19.0 12.0 6

5 C 23.0 9.0 5

6 C 25.0 0.0 9

7 C 29.0 4.0 12

### Example 2: Fill in Missing Values of Multiple Columns

The following code shows how to fill in missing values with a zero for just the points and assists columns in the DataFrame:

```
#replace missing values in points and assists columns  
with zero
```

```
df[ ] = df[ ].fillna(value=0)
```

```
#view DataFrame
```

```
print(df)
```

```
team points assists rebounds
```

0 A 25.0 5.0 11

1 NaN 0.0 7.0 8

2 B 15.0 7.0 10

3 B 0.0 9.0 6

4 B 19.0 12.0 6

5 C 23.0 9.0 5

6 C 25.0 0.0 9

7 C 29.0 4.0 12

### Example 3: Fill in Missing Values of Multiple Columns with Different Values

The following code shows how to fill in missing values in three different columns with three different values:

```
#replace missing values in three columns with three different values
```

```
df.fillna({'team':'Unknown', 'points': 0, 'assists': 'zero'}, inplace=True)
```

```
#view DataFrame
```

```
print(df)
```

```
team points assists rebounds
```

```
0 A 25.0 5 11
```

```
1 Unknown 0.0 7 8
```

```
2 B 15.0 7 10
```

```
3 B 0.0 9 6
```

```
4 B 19.0 12 6
```

```
5 C 23.0 9 5
```

```
6 C 25.0 zero 9
```

```
7 C 29.0 4 12
```

**Notice that each of the missing values in the three columns were replaced with some unique value.**

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