

# How can I add an empty column to a Pandas DataFrame?

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## RECOMMENDED CITATION

stats writer (2024). *How can I add an empty column to a Pandas DataFrame?*.

PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=155394>

To add an empty column to a Pandas DataFrame, you can use the "assign" method and specify the name of the new column. This will create a new column with no values in it, which can then be filled in with desired data. Alternatively, you can use the "insert" method to insert an empty column at a specific index location. This can be useful when you want to add a column in between existing columns. Both methods allow for the addition of an empty column to a Pandas DataFrame without affecting the existing data.

## Add Empty Column to Pandas DataFrame (3 Examples)

You can use the following methods to add empty columns to a pandas DataFrame:

### Method 1: Add One Empty Column with Blanks

```
df = ""
```

### Method 2: Add One Empty Column with NaN Values

```
df = np.nan
```

### Method 3: Add Multiple Empty Columns with NaN Values

```
df[] = np.nan
```

The following examples show how to use each method with the following pandas DataFrames:

```
import pandas as pd

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

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

```
team points assists
0 A 18 5
1 B 22 7
2 C 19 7
3 D 14 9
4 E 14 12
5 F 11 9
6 G 20 9
7 H 28 4
```

**Example 1: Add One Empty Column with Blanks**

**The following code shows how to add one empty column with all blank values:**

```
#add empty column
```

```
df = ""
```

```
#view updated DataFrame
```

```
print(df)
```

```
team points assists blanks
```

```
0 A 18 5
```

```
1 B 22 7
```

```
2 C 19 7
```

```
3 D 14 9
```

```
4 E 14 12
```

```
5 F 11 9
```

```
6 G 20 9
```

```
7 H 28 4
```

The new column called blanks is filled with blank values.

**Example 2: Add One Empty Column with NaN Values**

The following code shows how to add one empty column with all NaN values:

```
import numpy as np
```

```
#add empty column with NaN values
```

```
df = np.nan#view updated DataFrame  
print(df)
```

```
team points assists empty
```

```
0 A 18 5 NaN  
1 B 22 7 NaN  
2 C 19 7 NaN  
3 D 14 9 NaN  
4 E 14 12 NaN  
5 F 11 9 NaN  
6 G 20 9 NaN  
7 H 28 4 NaN
```

The new column called empty is filled with NaN values.

Example 3: Add Multiple Empty Columns with NaN Values

The following code shows how to add multiple empty columns with all NaN values:

```
import numpy as np
```

```
#add three empty columns with NaN values
```

```
df] = np.nan
```

```
#view updated DataFrame
```

```
print(df)
```

```
team points assists empty1 empty2 empty3
```

```
0 A 18 5 NaN NaN NaN
```

```
1 B 22 7 NaN NaN NaN
```

```
2 C 19 7 NaN NaN NaN
```

```
3 D 14 9 NaN NaN NaN
```

```
4 E 14 12 NaN NaN NaN
```

```
5 F 11 9 NaN NaN NaN
```

```
6 G 20 9 NaN NaN NaN
```

```
7 H 28 4 NaN NaN NaN
```

Notice that all three of the new columns are filled with NaN values.

The following tutorials explain how to perform other common tasks in pandas: