

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

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## RECOMMENDED CITATION

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Adding a column to a Pandas DataFrame is a simple process that can be achieved by using the "df = value" syntax. This allows for a new column to be created and populated with the desired values. Additionally, columns can also be added by using the "df.insert()" function, which allows for the column to be inserted at a specific position within the DataFrame. By following these steps, a new column can be easily incorporated into a Pandas DataFrame.

## Add a Column to a Pandas DataFrame

You can use the `assign()` function to add a new column to the end of a pandas DataFrame:

```
df = df.assign(col_name=)
```

And you can use the `insert()` function to add a new column to a specific location in a pandas DataFrame:

```
df.insert(position, 'col_name', )
```

The following examples show how to use this syntax in practice with the following pandas DataFrame:

```
import pandas as pd
```

```
#create DataFrame
```

```
df = pd.DataFrame({'points': ,  
'assists': ,  
'rebounds': })
```

```
#view DataFrame
```

```
df
```

```
points assists rebounds
```

```
0 25 5 11
```

```
1 12 7 8
```

```
2 15 7 10
```

```
3 14 9 6
```

```
4 19 12 6
```

```
5 23 9 5
```

Example 1: Add New Column to End of DataFrame

The following code shows how to add a new column to the end of the DataFrame:

```
#add 'steals' column to end of DataFrame
```

```
df = df.assign(steals=)
```

```
#view DataFrame
```

```
df
```

```
points assists rebounds steals
```

```
0 25 5 11 2
```

```
1 12 7 8 2
```

```
2 15 7 10 4
```

3 14 9 6 7

4 19 12 6 4

5 23 9 5 1

### Example 2: Add Multiple Columns to End of DataFrame

The following code shows how to add multiple new columns to the end of the DataFrame:

```
#add 'steals' and 'blocks' columns to end of DataFrame  
df = df.assign(steals=  
blocks=)
```

```
#view DataFrame
```

```
df
```

```
points assists rebounds steals blocks
```

```
0 25 5 11 2 0
```

```
1 12 7 8 2 1
```

```
2 15 7 10 4 1
```

```
3 14 9 6 7 3
```

```
4 19 12 6 4 2
```

```
5 23 9 5 1 5
```

### Example 3: Add New Column Using Existing Column

The following code shows how to add a new column to the end of the DataFrame, based on the values in an existing column:

```
#add 'half_pts' to end of DataFrame  
df = df.assign(half_pts=lambda x: x.points / 2)
```

```
#view DataFrame  
df
```

```
points assists rebounds half_pts  
0 25 5 11 12.5  
1 12 7 8 6.0  
2 15 7 10 7.5  
3 14 9 6 7.0  
4 19 12 6 9.5  
5 23 9 5 11.5
```

Example 4: Add New Column in Specific Location of DataFrame

The following code shows how to add a new column by inserting it into a specific location in the DataFrame:

```
#add 'steals' to column index position 2 in DataFrame  
df.insert(2, 'steals', )
```

## #view DataFrame

df

points assists steals rebounds

0 25 5 2 11

1 12 7 2 8

2 15 7 4 10

3 14 9 7 6

4 19 12 4 6

5 23 9 1 5

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