

# How can I add a new column to a Pandas DataFrame with row numbers?

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## RECOMMENDED CITATION

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Adding a new column to a Pandas DataFrame with row numbers can be achieved by using the "reset\_index" function in Pandas. This function creates a new column with the row numbers and resets the index of the DataFrame. By specifying the parameter "drop=True", the old index can be dropped to avoid redundancy. This new column can then be renamed to suit the user's preference. This method is useful for organizing and tracking data in a DataFrame, especially when dealing with large datasets.

## Pandas: Add New Column with Row Numbers

There are two ways to add a new column that contains row numbers in a pandas DataFrame:

### Method 1: Use assign()

```
df = df.assign(row_number=range(len(df)))
```

### Method 2: Use reset\_index()

```
df = df.reset_index().index
```

Both methods produce the same result.

The following examples show how to use each method in practice with the following pandas DataFrame:

```
import pandas as pd
```

```
#create DataFrame
```

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

```
#view DataFrameprint(df)
```

```
team points assists
```

```
0 A 5 4  
1 B 17 7  
2 C 7 7  
3 D 19 6  
4 E 12 8  
5 F 13 7  
6 G 9 10  
7 H 24 11
```

**Example 1: Use assign() to Add Row Number Column**

The following code shows how to use the `assign()` function to add a new column called `row_number` that displays the row number of each row in the DataFrame:

```
#add column that contains row numbers  
df = df.assign(row_number=range(len(df)))
```

```
#view updated DataFrame
```

```
print(df)
```

```
team points assists row_number
```

```
0 A 5 4 0
```

```
1 B 17 7 1
```

```
2 C 7 7 2
```

```
3 D 19 6 3
```

```
4 E 12 8 4
```

```
5 F 13 7 5
```

```
6 G 9 10 6
```

```
7 H 24 11 7
```

Notice that the values in the row\_number column range from 0 to 7.

Example 2: Use reset\_index() to Add Row Number Column

The following code shows how to use the reset\_index() function to add a new column called row\_number that displays the row number of each row in the DataFrame:

```
#add column that contains row numbers
```

```
df = df.reset_index().index
```

```
#view updated DataFrame
```

```
print(df)
```

**team points assists row\_number**

**0 A 5 4 0**

**1 B 17 7 1**

**2 C 7 7 2**

**3 D 19 6 3**

**4 E 12 8 4**

**5 F 13 7 5**

**6 G 9 10 6**

**7 H 24 11 7**

Notice that the values in the row\_number column range from 0 to 7.

This matches the results from the previous example.

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