

# How can I use rbind in Python to combine two data frames, similar to the rbind function in R?

Authored by  
**stats writer**

July 2, 2024

## RECOMMENDED CITATION

stats writer (2024). *How can I use rbind in Python to combine two data frames, similar to the rbind function in R?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=165804>

The rbind function in R is used to combine two data frames vertically, by appending the rows of one data frame to the end of the other. In order to achieve a similar result in Python, the pandas library offers the "concat" function. This function allows you to combine two data frames row-wise, similar to the rbind function in R. By specifying the "axis" parameter as 0, the rows of one data frame can be appended to the rows of another data frame, creating a new combined data frame. This can be useful for merging data from multiple sources into one cohesive data set.

## Use rbind in Python (Equivalent to R)

The rbind function in R, short for *row-bind*, can be used to combine data frames together by their rows.

We can use the function from pandas to perform the equivalent function in Python:

```
df3 = pd.concat()
```

The following examples shows how to use this function in practice.

Example 1: Use rbind in Python with Equal Columns

Suppose we have the following two pandas DataFrames:

```
import pandas as pd
```

```
#define DataFrames
```

```
df1 = pd.DataFrame({'team': ,
```

```
'points': })
```

```
print(df1)
```

```
team points
```

```
0 A 99
```

```
1 B 91
```

```
2 C 104
```

```
3 D 88
```

```
4 E 108
```

```
df2 = pd.DataFrame({'assists': ,  
'rebounds': })
```

```
print(df2)
```

```
team points
```

```
0 F 91
```

```
1 G 88
```

```
2 H 85
```

```
3 I 87
```

```
4 J 95
```

We can use the `concat()` function to quickly bind these two DataFrames together by their rows:

**#row-bind two DataFrames**

```
df3 = pd.concat()
```

**#view resulting DataFrame**

```
df3
```

```
team points
```

```
0 A 99
```

```
1 B 91
```

```
2 C 104
```

```
3 D 88
```

```
4 E 108
```

```
0 F 91
```

```
1 G 88
```

```
2 H 85
```

```
3 I 87
```

```
4 J 95
```

**Note that we can also use `reset_index()` to reset the index values of the new DataFrame:**

**#row-bind two DataFrames and reset index values**

```
df3 = pd.concat().reset_index(drop=True)
```

**#view resulting DataFrame**

```
df3
```

```
team points
```

```
0 A 99
```

```
1 B 91
```

```
2 C 104
```

```
3 D 88
```

```
4 E 108
```

```
5 F 91
```

```
6 G 88
```

```
7 H 85
```

```
8 I 87
```

```
9 J 95
```

Example 2: Use rbind in Python with Unequal Columns

We can also use the `concat()` function to row-bind two DataFrames together that have an unequal number of columns and any missing values will simply be filled with NaN:

```
import pandas as pd
```

```
#define DataFrames
```

```
df1 = pd.DataFrame({'team': ,
```

```
'points': })
```

```
df2 = pd.DataFrame({'team': ,  
'points': ,  
'rebounds': })
```

```
#row-bind two DataFrames
```

```
df3 = pd.concat().reset_index(drop=True)
```

```
#view resulting DataFrame
```

```
df3
```

```
team points rebounds
```

```
0 A 99 NaN
```

```
1 B 91 NaN
```

```
2 C 104 NaN
```

```
3 D 88 NaN
```

```
4 E 108 NaN
```

```
5 F 91 24.0
```

```
6 G 88 27.0
```

```
7 H 85 27.0
```

```
8 I 87 30.0
```

```
9 J 95 35.0
```

## Additional Resources

**The following tutorials explain how to perform other common functions in Python:**

ARABPSYCHOLOGY.COM