

How do I add a column to a data frame in R?

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April 25, 2024

RECOMMENDED CITATION

stats writer (2024). *How do I add a column to a data frame in R?*. PSYCHOLOGICAL SCALES. Retrieved from <https://scales.arabpsychology.com/?p=139002>

Adding a column to a data frame in R is a process of creating a new column and appending it to the existing data frame. This can be done by using the "cbind()" function, which combines the existing data frame with the new column. Alternatively, the "mutate()" function from the dplyr package can be used to add a new column by specifying the column name and the desired values. The new column can also be added by using the "insert()" function from the insert package, which allows for specifying the position of the new column within the data frame. By following these steps, a new column can be easily added to a data frame in R.

Add a Column to a Data Frame in R (With Examples)

There are three common ways to add a new column to a data frame in R:

1. Use the \$ Operator

```
df$new <- c(3, 3, 6, 7, 8, 12)
```

2. Use Brackets

```
df <- c(3, 3, 6, 7, 8, 12)
```

3. Use Cbind

```
df_new <- cbind(df, new)
```

This tutorial provides examples of how to use each of these methods in practice using the following data frame:

```
#create data frame
```

```
df <- data.frame(a = c('A', 'B', 'C', 'D', 'E'),  
b = c(45, 56, 54, 57, 59))
```

```
#view data frame
```

```
df
```

```
a b
```

```
1 A 45
```

```
2 B 56
```

```
3 C 54
```

```
4 D 57
```

```
5 E 59
```

Example 1: Use the \$ Operator

The following code shows how to add a column to a data frame by using the \$ operator:

```
#define new column to add
```

```
new <- c(3, 3, 6, 7, 8)
```

```
#add column called 'new'
```

```
df$new <- new
```

```
#view new data frame
```

```
df a b new
```

```
1 A 45 3
```

```
2 B 56 3
```

```
3 C 54 6
```

```
4 D 57 7
```

```
5 E 59 8
```

Example 2: Use Brackets

The following code shows how to add a column to a data frame by using brackets:

```
#define new column to add
```

```
new <- c(3, 3, 6, 7, 8)
```

```
#add column called 'new'
```

```
df <- new
```

```
#view new data frame
```

```
df
```

```
a b new
```

```
1 A 45 3
```

```
2 B 56 3
```

```
3 C 54 6
```

```
4 D 57 7
```

5 E 59 8

Example 3: Use Cbind

The following code shows how to add a column to a data frame by using the function, which is short for *column-bind*:

```
#define new column to add
```

```
new <- c(3, 3, 6, 7, 8)
```

```
#add column called 'new'
```

```
df_new <- cbind(df, new)
```

```
#view new data frame
```

```
df_new
```

```
a b new
```

```
1 A 45 3
```

```
2 B 56 3
```

```
3 C 54 6
```

```
4 D 57 7
```

```
5 E 59 8
```

You can actually use the `cbind` function to add multiple new columns at once:

```
#define new columns to add
```

```
new1 <- c(3, 3, 6, 7, 8)
```

```
new2 <- c(13, 14, 16, 17, 20)
```

```
#add columns called 'new1' and 'new2'
```

```
df_new <- cbind(df, new1, new2)
```

```
#view new data frame
```

```
df_new
```

```
a b new1 new2
```

```
1 A 45 3 13
```

```
2 B 56 3 14
```

```
3 C 54 6 16
```

```
4 D 57 7 17
```

```
5 E 59 8 20
```

Bonus: Set Column Names

After adding one or more columns to a data frame, you can use the `colnames()` function to specify the column names of the new data frame:

```
#create data frame
```

```
df <- data.frame(a = c('A', 'B', 'C', 'D', 'E'),
```

```
b = c(45, 56, 54, 57, 59),
```

```
new1 = c(3, 3, 6, 7, 8),  
new2 = c(13, 14, 16, 17, 20))
```

```
#view data frame
```

```
df
```

```
a b new1 new2
```

```
1 A 45 3 13
```

```
2 B 56 3 14
```

```
3 C 54 6 16
```

```
4 D 57 7 17
```

```
5 E 59 8 20
```

```
#specify column names
```

```
colnames(df) <- c('a', 'b', 'c', 'd')
```

```
#view data frame
```

```
df
```

```
a b c d
```

```
1 A 45 3 13
```

```
2 B 56 3 14
```

```
3 C 54 6 16
```

```
4 D 57 7 17
```

```
5 E 59 8 20
```

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