

How can I add a total row to a data frame in R?

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Adding a total row to a data frame in R allows for the calculation of summary statistics or the aggregation of data within the data frame. This can be achieved by using the "summarize" function from the "dplyr" package, where the desired columns can be selected and aggregated. Alternatively, the "add_row" function from the "tibble" package can be used to append a new row with the desired summary statistics to the existing data frame. Adding a total row can provide a quick and efficient way to analyze and present the overall data summary in a data frame.

Add a Total Row to a Data Frame in R

You can use the following methods to add a 'total' row to the bottom of a data frame in R:

Method 1: Use Base R

```
rbind(df, data.frame(team='Total', t(colSums(df))))
```

Method 2: Use dplyr

```
library(dplyr)
```

```
df %>%
```

```
  bind_rows(summarise(., across(where(is.numeric),  
                                sum),
```

```
  across(where(is.character), ~'Total')))
```

The following example shows how to use each method in practice with the following data frame:

```
#create data frame
```

```
df <- data.frame(team=c('A', 'B', 'C', 'D', 'E', 'F'),  
assists=c(5, 7, 7, 9, 12, 9),  
rebounds=c(11, 8, 10, 6, 6, 5),  
blocks=c(6, 6, 3, 2, 7, 9))
```

```
#view data frame
```

```
df
```

```
team assists rebounds blocks
```

```
1 A 5 11 6
```

```
2 B 7 8 6
```

```
3 C 7 10 3
```

```
4 D 9 6 2
```

```
5 E 12 6 7
```

```
6 F 9 5 9
```

Example 1: Add Total Row Using Base R

We can use the rbind and colSums functions from base R to add a total row to the bottom of the data frame:

```
#add total row to data frame
```

```
df_new <- rbind(df, data.frame(team='Total',  
t(colSums(df))))
```

```
#view new data frame
```

```
df_new
```

```
team assists rebounds blocks
```

```
1 A 5 11 6
```

```
2 B 7 8 6
```

```
3 C 7 10 3
```

```
4 D 9 6 2
```

```
5 E 12 6 7
```

```
6 F 9 5 9
```

```
7 Total 49 46 33
```

Notice that a row has been added to the bottom of the data frame that shows the sum of the values in each column.

Example 2: Add Total Row Using dplyr

The following code shows how to use functions from the package in R to add a total row to the bottom of the data frame:

```
library(dplyr)
```

```
#add total row to data frame
```

```
df_new <- df %>%
```

```
bind_rows(summarise(., across(where(is.numeric),  
sum),  
across(where(is.character), ~'Total')))
```

```
#view new data frame
```

```
df_new
```

```
team assists rebounds blocks
```

```
1 A 5 11 6
```

```
2 B 7 8 6
```

```
3 C 7 10 3
```

```
4 D 9 6 2
```

```
5 E 12 6 7
```

```
6 F 9 5 9
```

```
7 Total 49 46 33
```

Notice that a row has been added to the bottom of the data frame that shows the sum of the values in each column.

Also notice that this method produces the same results as the base R method.