

How can the axis in ggplot2 be converted to a percentage scale?

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The axis in ggplot2 can be converted to a percentage scale by using the "scale_y_continuous" or "scale_x_continuous" function and specifying the limits as a percentage range (e.g. 0 to 100). This will automatically adjust the axis labels and ticks to display percentages instead of numeric values. Additionally, the "labels" argument can be used to customize the specific labels on the axis. This conversion to a percentage scale can be useful for visualizing data in relation to a total or for comparing relative proportions.

Convert Axis in ggplot2 to Percentage Scale

You can use the following basic syntax to convert an axis in ggplot2 to a percentage scale:

```
+ scale_y_continuous(labels = scales::percent)
```

The following example show how to use this syntax in practice.

Example: Convert Axis in ggplot2 to Percentage Scale

Suppose we have the following data frame in R that shows the percentage of items that were returned at four different stores:

```
#create data frame
```

```
df <- data.frame(store=c('A', 'B', 'C', 'D'),  
returns=c(.14, .08, .22, .11))
```

```
#view data frame
```

df

store returns

1 A 0.14

2 B 0.08

3 C 0.22

4 D 0.11

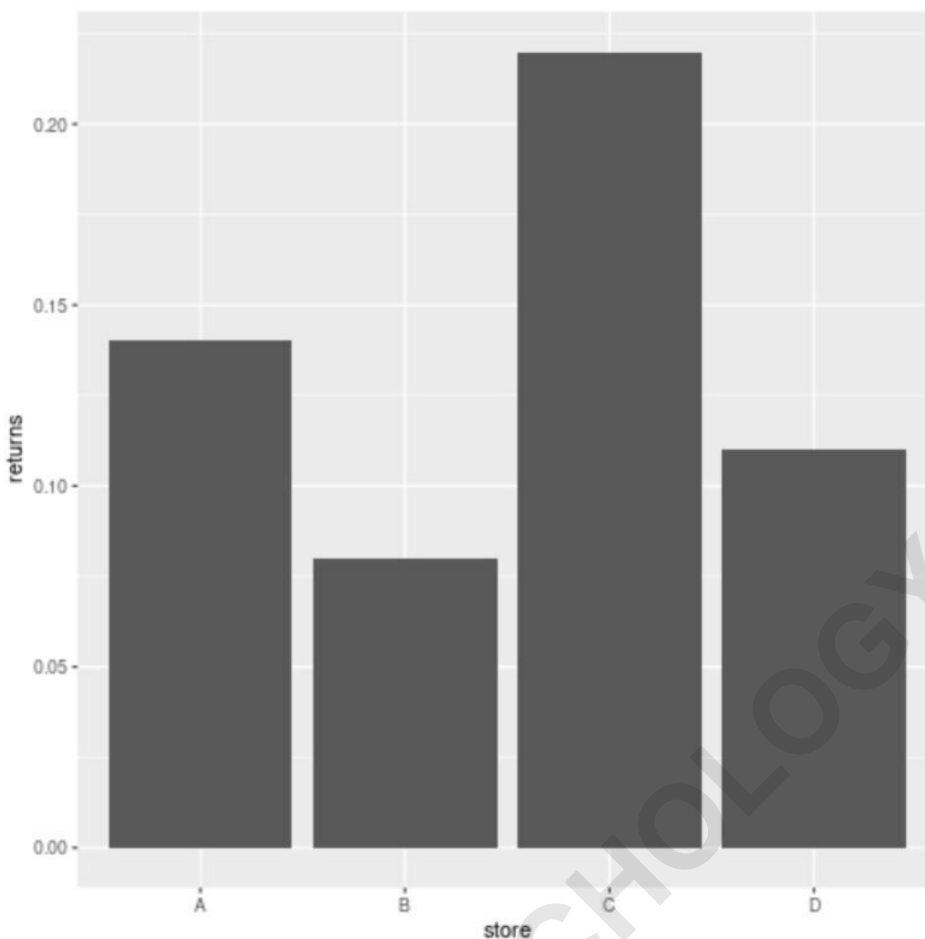
Now suppose we create a bar chart in ggplot2 to visualize the return percentages for each store:

```
library(ggplot2)
```

```
#create bar chart
```

```
ggplot(data=df, aes(x=store, y=returns)) +
```

```
geom_bar(stat='identity')
```



By default, ggplot2 displays the values on the y-axis using decimals.

However, we can use the following syntax to change the y-axis to a percentage scale:

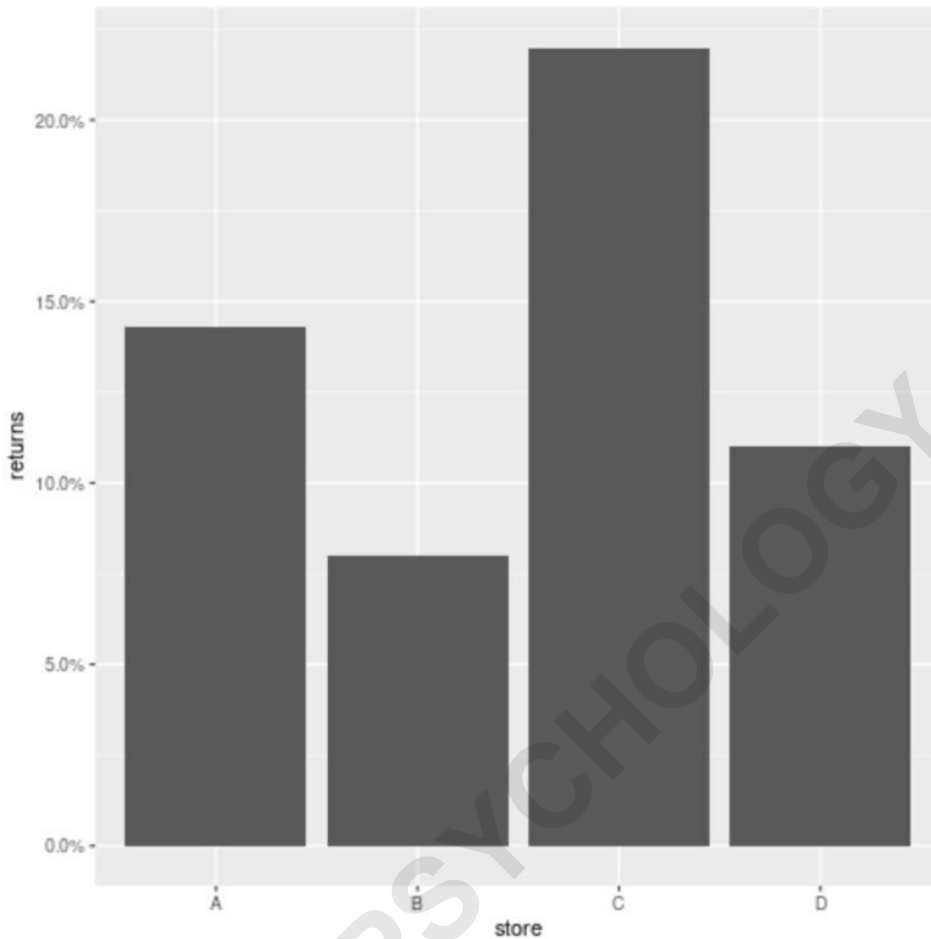
```
library(ggplot2)
```

```
#create bar chart with percentages on y-axis
```

```
ggplot(data=df, aes(x=store, y=returns)) +
```

```
geom_bar(stat='identity') +
```

```
scale_y_continuous(labels = scales::percent)
```



The y-axis now has a percentage scale.

By default, one decimal place is shown. However, we can use the accuracy argument to drop the decimal place from the y-axis:

```
library(ggplot2)
```

#create bar chart with percentages on y-axis

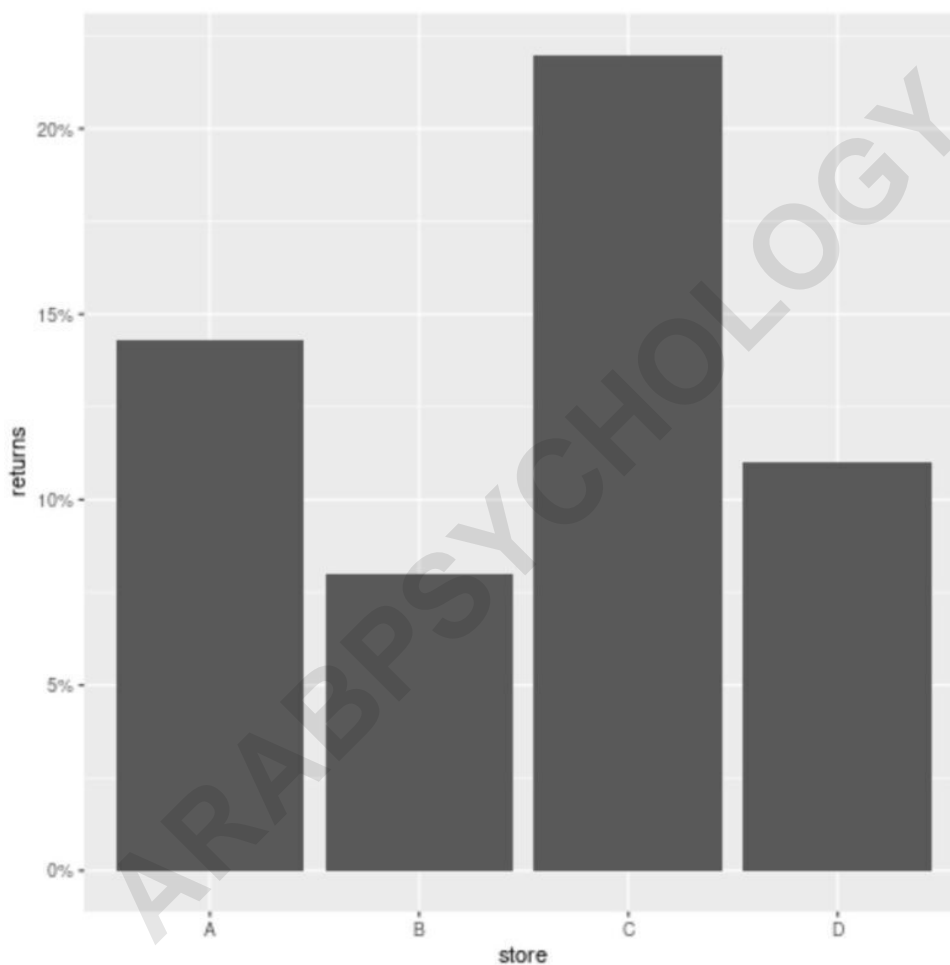
```
ggplot(data=df, aes(x=store, y=returns)) +
```

```
geom_bar(stat='identity') +
```

```
scale_y_continuous(labels
```

=

```
scales::percent_format(accuracy=1))
```



The following tutorials explain how to perform other common functions in ggplot2: