Create data visualizations in R
Explore aesthetics in analysis
Annotate and save visualizations
Weekly challenge 4

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Quiz: Weekly challenge 4

10 questions

Weekly challenge 4

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1.

Question 1

Which of the following tasks can you complete with ggplot2 features? Select all that apply.

1 / 1 point

☐

☐

Automatically clean data before creating a plot

☑

☒

Add labels and annotations to a plot

Correct

☑

☒

Customize the visual features of a plot

Correct

☑

☒

Create many different types of plots

Correct

2.

Question 2

A data analyst creates a bar chart with the diamonds dataset. They begin with the following line of code:

```
ggplot(data = diamonds)
```

What symbol should the analyst put at the end of the line of code to add a layer to the plot?

1 / 1 point

The plus sign (+)

The ampersand symbol (&)

The pipe operator (%>%)

The equals sign (=)

Correct

3.

Question 3

A data analyst creates a plot using the following code chunk:

```
ggplot(data = buildings) +

    geom_bar(mapping = aes(x = construction_year, color = height))
```

Which of the following represents a variable in the code chunk?

0 / 1 point

○

data

◉

mapping

○

construction_year

○

ggplot

⊗

Incorrect

Review the video on enhancing visualizations.

4.

Question 4

In ggplot2, which of the following aesthetic attributes can you use to map variables to points? Select all that apply.

1 / 1 point

☑

Color

⊘

Correct

☐

Facet

☑

☒

Size

Correct

☑

☒

Shape

Correct

5.

Question 5

A data analyst is working with the penguins data. The analyst creates a scatterplot with the following code:

```
ggplot(data = penguins) +

    geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g, alpha = species))
```

What does the alpha aesthetic do to the appearance of the points on the plot?

1 / 1 point

○

Makes the points on the plot more colorful

○

Makes the points on the plot smaller

◉

Makes some points on the plot more transparent

Makes the points on the plot larger

Correct

6.

Question 6

You are working with the penguins dataset. You create a scatterplot with the following code:

```
ggplot(data = penguins) +

    geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g))
```

You want to highlight each penguin species in your plot. Add a code chunk to the second line of code to map the aesthetic *color* to the variable *species.*

NOTE: the three dots (...) indicate where to add the code chunk. You may need to scroll in order to find the dots.

1

```
geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g, ...))
```

Run Reset

Which penguin species does your visualization display?

1 / 1 point

Adelie, Emperor, Gentoo

Chinstrap, Emperor, Gentoo

Adelie, Chinstrap, Macaroni

Adelie, Chinstrap, Gentoo

Correct

You add the code chunk `color = species` to the second line of code to map the aesthetic color to the variable species. The correct code is `ggplot(data = penguins) + geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g, color = species))`. Inside the parentheses of the aes() function, after the comma that follows y = body_mass_g, write the aesthetic (color), then an equals sign, then the variable (species). The data points for each penguin species now appear in different colors.

Your visualization displays the Adelie, Chinstrap, and Gentoo penguin species.

7.

Question 7

Which aesthetic of the geom_smooth function can be used to change the style of the line?

1 / 1 point

linelook

linetype

linestyle

line

Correct

8.

Question 8

You are working with the diamonds dataset. You create a bar chart with the following code:

```
ggplot(data = diamonds) +

    geom_bar(mapping = aes(x = color, fill = cut)) +
```

You want to use the facet_wrap() function to display subsets of your data. Add the code chunk that lets you facet your plot based on the variable *clarity.*

```
1
```

```
ggplot(data = diamonds) + geom_bar(mapping = aes(x = color, fill = cut)) + facet
_wrap(~clarity)
```

Run Reset

How many subplots does your visualization show?

1 / 1 point

-
- 6
-
- 8
-
- 7

9

Correct

You add the code chunk `facet_wrap(~clarity)` to facet your plot based on the variable clarity. The correct code is `ggplot(data = diamonds) + geom_bar(mapping = aes(x = color, fill = cut)) + facet_wrap(~clarity)`. Inside the parentheses of the facet_wrap() function, write a tilde symbol (~) followed by the name of the variable you want to facet. The facet_wrap() function lets you display subsets of your data.

Your visualization shows 8 subplots.

9.

Question 9

What argument of the `labs()` function can a data analyst use to add text outside of the grid area of a plot?

0 / 1 point

note

text

annotate

title

Incorrect

Review the video on customizing the look of plots.

10.

Question 10

You are working with the penguins dataset. You create a scatterplot with the following lines of code:

```
ggplot(data = penguins) +

  geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g)) +
```

What code chunk do you add to the third line to save your plot as a jpeg file with “penguins” as the file name?

1 / 1 point

- `ggsave(“penguins.jpeg”)`
- `ggsave(penguins.jpeg)`
- `ggsave(penguins)`
- `ggsave(“jpeg.penguins”)`

Correct