Congratulations! You passed!

TO PASS 80% or higher

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Weekly challenge 4

LATEST SUBMISSION GRADE

90%

1. Which of the following tasks can you complete with ggplot2 features? Select all that apply. **1 / 1 point**

- [x] Add labels and annotations to a plot

  Correct
  ggplot2 includes features that let you create many different types of plots, customize the visual features of a plot, and add labels and annotations to a plot.

- [x] Customize the visual features of a plot

  Correct
  ggplot2 includes features that let you create many different types of plots, customize the visual features of a plot, and add labels and annotations to a plot.

- [x] Create many different types of plots

  Correct
  ggplot2 includes features that let you create many different types of plots, customize the visual features of a plot, and add labels and annotations to a plot.

- [ ] Automatically clean data before creating a plot

2. Fill in the blank: In ggplot2, you use the _____ to add layers to your plot. **1 / 1 point**

- ( ) equal sign (=)
- (•) plus sign (+)
- ( ) ampersand symbol (&)
- ( ) pipe operator (%>%)

Correct
In ggplot2, you use the plus sign (+) to add layers to your plot.

3. A data analyst creates a plot using the following code chunk: **1 / 1 point**

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

Which of the following represents a variable in the code chunk? Select all that apply.

- [ ] `y`
- [x] `flipper_length_mm`

Correct
The two variables in the code are `flipper_length_mm` and `body_mass_g`. The two variables are part of the penguins dataset. The aesthetic *x* maps the variable `flipper_length_mm` to the x-axis of the plot. The aesthetic *y* maps the variable `body_mass_g` to the y-axis of the plot.

- [ ] `x`
- [x] `body_mass_g`

Correct
The two variables in the code are `flipper_length_mm` and `body_mass_g`. The two variables are part of the penguins dataset. The aesthetic *x* maps the variable `flipper_length_mm` to the x-axis of the plot. The aesthetic *y* maps the variable `body_mass_g` to the y-axis of the plot.

4. In ggplot2, which of the following aesthetic attributes can you use to map variables to points? Select all that apply. **1 / 1 point**

- [x] Color

Correct
In ggplot2, color, shape, and size are aesthetic attributes you can use to map variables to points. Color refers to the color of the points on your plot, shape to the shape of the points, and size to the size of the points.

- [x] Size

Correct

In ggplot2, color, shape, and size are aesthetic attributes you can use to map variables to points. Color refers to the color of the points on your plot, shape to the shape of the points, and size to the size of the points.

- [ ] Facet
- [x] Shape

Correct
In ggplot2, color, shape, and size are aesthetic attributes you can use to map variables to points. Color refers to the color of the points on your plot, shape to the shape of the points, and size to the size of the points.

5. A data analyst creates a scatterplot with a lot of data points. The analyst wants to make some points on the plot more transparent than others. What aesthetic should the analyst use? **0 / 1 point**

- (•) Fill
- ( ) Color
- ( ) Shape
- ( ) Alpha

Incorrect
Review the video that discusses aesthetics for a refresher.

6. You are working with the penguins dataset. You create a scatterplot with the following code: **1 / 1 point**

```
ggplot(data = penguins) +

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

You want to highlight the different penguin species on your plot. Add a code chunk to the second line of code to map the aesthetic *shape* to the variable *species*.

NOTE: the three dots (...) indicate where to add the code chunk.

```
1  ggplot(data = penguins) +
2
3  geom_point(mapping = aes(x = flipper_length_mm, y = body_mass_g, shape = species))
```

Run

Reset

Which penguin species does your visualization display?

- ( ) Adelie, Gentoo, Macaroni

- (●) Adelie, Chinstrap, Gentoo
- ( ) Emperor, Chinstrap, Gentoo
- ( ) Adelie, Chinstrap, Emperor

Correct

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

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

7. What function creates a scatterplot and then adds a small amount of random noise to each point in the plot to make the points easier to find? **1 / 1 point**

- ( ) The geom_bar() function
- (●) The geom_jitter() function
- ( ) The geom_smooth() function
- ( ) The geom_point() function

Correct

The geom_jitter() function creates a scatterplot and then adds a small amount of random noise to each point in the plot to make the points easier to find.

8. You are working with the diamonds dataset. You create a bar chart with the following code: **1 / 1 point**

```
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 *color.*

```
1  ggplot(data = diamonds) + geom_bar(mapping = aes(x = color, fill = cut)) + facet_wrap(~color
```

Run

Reset

How many subplots does your visualization show?

- (●) 7
- ( ) 6
- ( ) 9
- ( ) 8

Correct

You add the code chunk `facet_wrap(~color)` to facet your plot based on the variable color. The correct code is `ggplot(data = diamonds) + geom_bar(mapping = aes(x = color, fill = cut)) + facet_wrap(~color)`. 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 7 subplots.

9. A data analyst uses the annotate() function to create a text label for a plot. Which attributes of the text can the analyst change by adding code to the argument of the annotate() function? Select all that apply. **1 / 1 point**

- [ ] Change the text into a title for the plot
- [x] Change the size of the text

Correct

By adding code to the argument of the annotate() function, the analyst can change the font style, color, and size of the text.

- [x] Change the font style of the text

Correct

By adding code to the argument of the annotate() function, the analyst can change the font style, color, and size of the text.

- [x] Change the color of the text

Correct

By adding code to the argument of the annotate() function, the analyst can change the font style, color, and size of the text.

10. You are working with the penguins dataset. You create a scatterplot with the following lines of code: **1 / 1 point**

```
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 png file with “penguins” as the file name?

- (●) `ggsave("penguins.png")`
- ( ) `ggsave("penguins")`
- ( ) `ggsave(penguins.png)`
- ( ) `ggsave("png.penguins")`

✓ **Correct**

You add the code chunk `ggsave("penguins.png")` to save your plot as a png file with “penguins” as the file name. Inside the parentheses of the ggsave() function, type a quotation mark followed by the file name (penguins), then a period, then the type of file (png), then a closing quotation mark