Visualizing Star Wars characters

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Contents

Clone assignment repo

1. Go to your repo `appex02-[github_name]` on GitHub.
2. Click on the green **Clone or download** button, select **Use HTTPS** (this might already be selected by default, and if it is, you'll see the text **Clone with HTTPS** as in the image below). Click on the clipboard icon to copy the repo URL.
3. Go to RStudio Cloud and into the STA 199 course workspace. Create a **New Project from Git Repo**. You will need to click on the down arrow next to the **New Project** button to see this option.
4. Copy and paste the URL of your assignment repo (done in step 2) into the dialog box.
5. Click OK, and you should see the contents from your GitHub repo in the `Files` pane in RStudio.

Configure git

Type the following lines of code in the **Console** in RStudio - filling in your name and email address.

For example, mine would be

```
library(usethis)
use_git_config(user.name="Robert Eisinger", user.email="robert.eisinger@duke.edu")
```

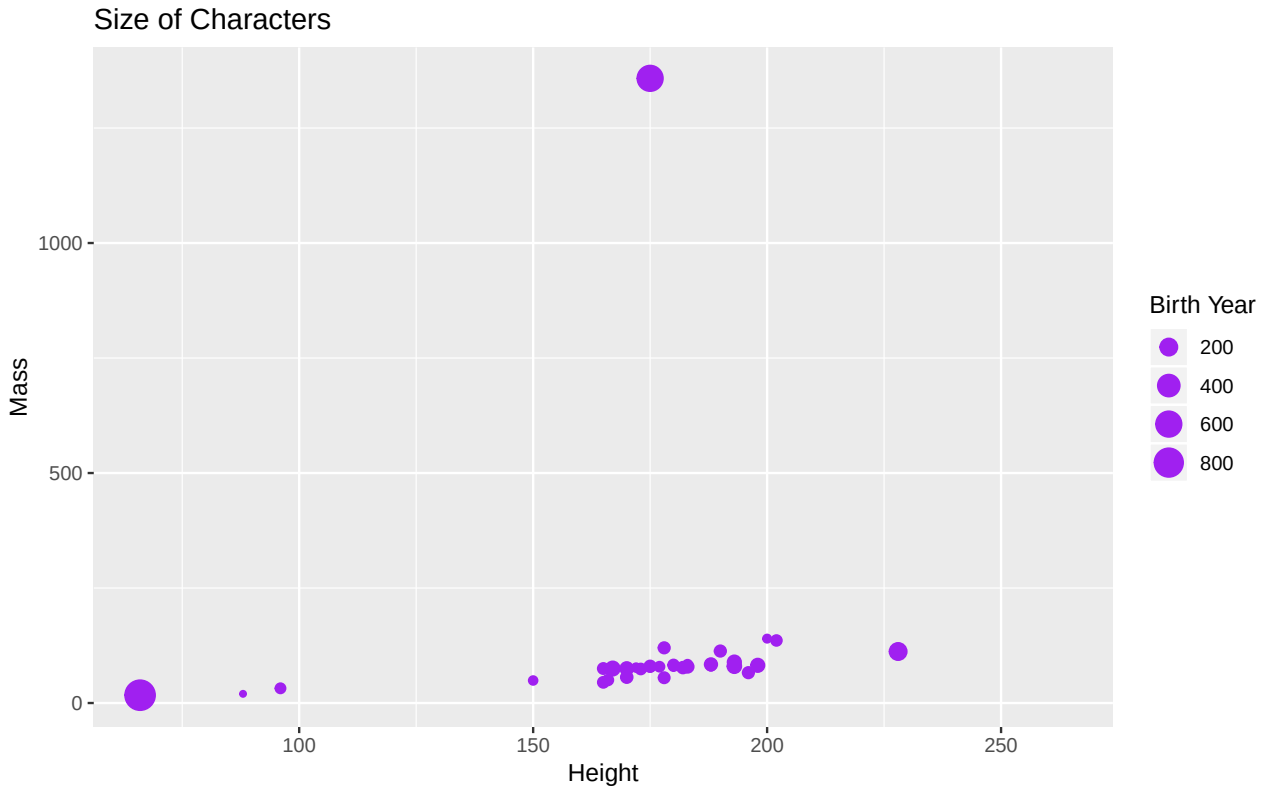
RStudio and GitHub can now communicate with each other and you are ready to do the exercise below!

Some ggplot2 practice

1. Modify the following plot to change the color of all points to a color of your choice. Adjust the figure width size and height as you see fit.

```
ggplot(data = starwars,
       mapping = aes(x = height, y = mass, color = gender, size = birth_year)) +
  geom_point(color = "purple") +
  labs(title = "Size of Characters" , size = "Birth Year", x = "Height", y = "Mass")
```

```
## Warning: Removed 51 rows containing missing values (geom_point).
```



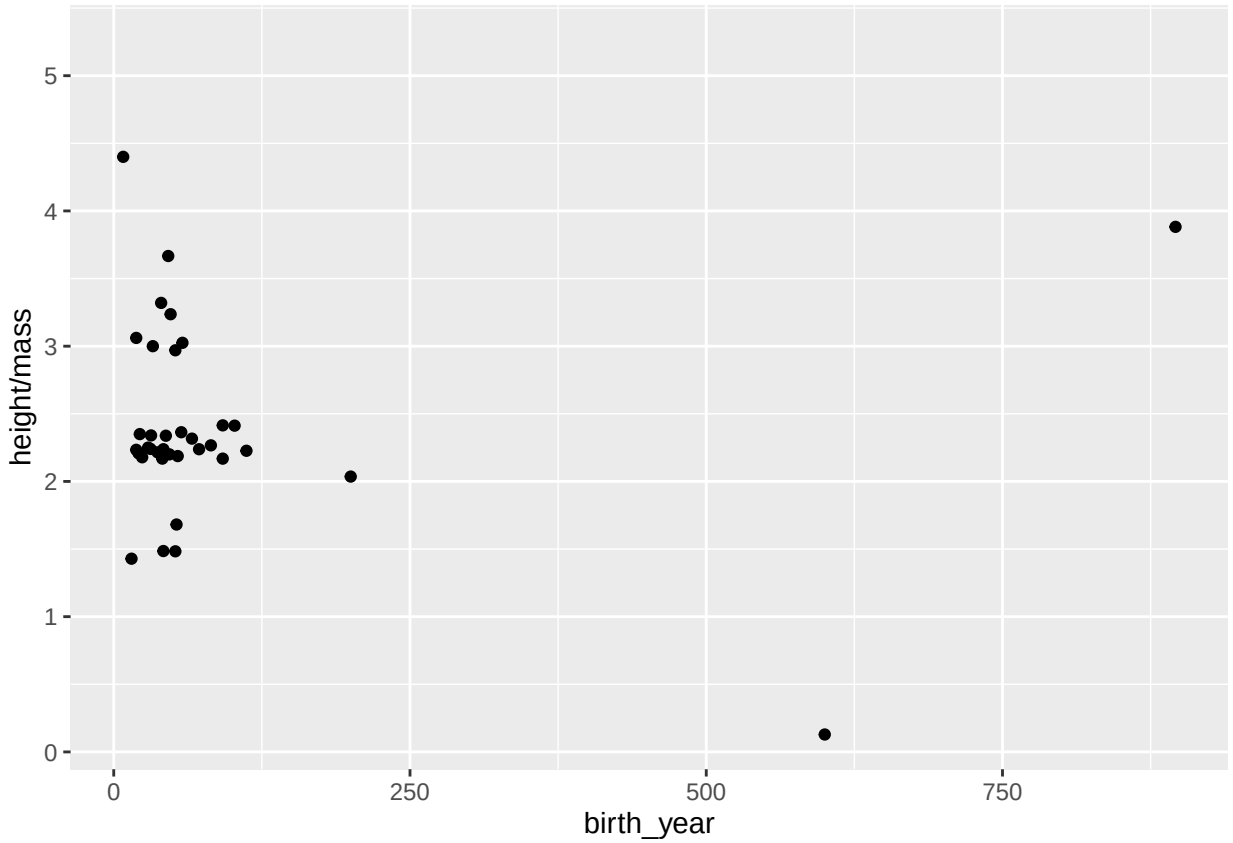

```
starwars %>%
   mutate(bmi = height / mass) %>%
   arrange((bmi)) %>%
   print(n = 6, width = Inf)
```

```
## # A tibble: 87 x 14
##   name                  height  mass hair_color  skin_color
##   <chr>                  <int> <dbl> <chr>       <chr>
## 1 Jabba Desilijic Tiure    175  1358 <NA>        green-tan, brown
## 2 Grievous                 216   159 none        brown, white
## 3 IG-88                    200   140 none        metal
## 4 Owen Lars                178   120 brown, grey light
## 5 Darth Vader              202   136 none        white
## 6 Jek Tono Porkins         180   110 brown       fair
##   eye_color     birth_year gender        homeworld  species films
##   <chr>              <dbl> <chr>         <chr>      <chr>   <list>
## 1 orange               600 hermaphrodite Nal Hutta  Hutt    <chr [3]>
## 2 green, yellow         NA male          Kalee      Kaleesh <chr [1]>
## 3 red                   15 none          <NA>       Droid   <chr [1]>
## 4 blue                  52 male          Tatooine   Human   <chr [3]>
## 5 yellow              41.9 male          Tatooine   Human   <chr [4]>
## 6 blue                  NA male          Bestine IV Human   <chr [1]>
##   vehicles  starships   bmi
##   <list>    <list>    <dbl>
## 1 <chr [0]> <chr [0]> 0.129
## 2 <chr [1]> <chr [1]> 1.36
## 3 <chr [0]> <chr [0]> 1.43
## 4 <chr [0]> <chr [0]> 1.48
## 5 <chr [0]> <chr [1]> 1.49
```

```
## 6 <chr [0]> <chr [1]> 1.64
## # ... with 81 more rows
```

```
ggplot(data = starwars,
       mapping = aes(x = birth_year, y = height / mass)) +
   geom_point()
```

```
## Warning: Removed 51 rows containing missing values (geom_point).
```



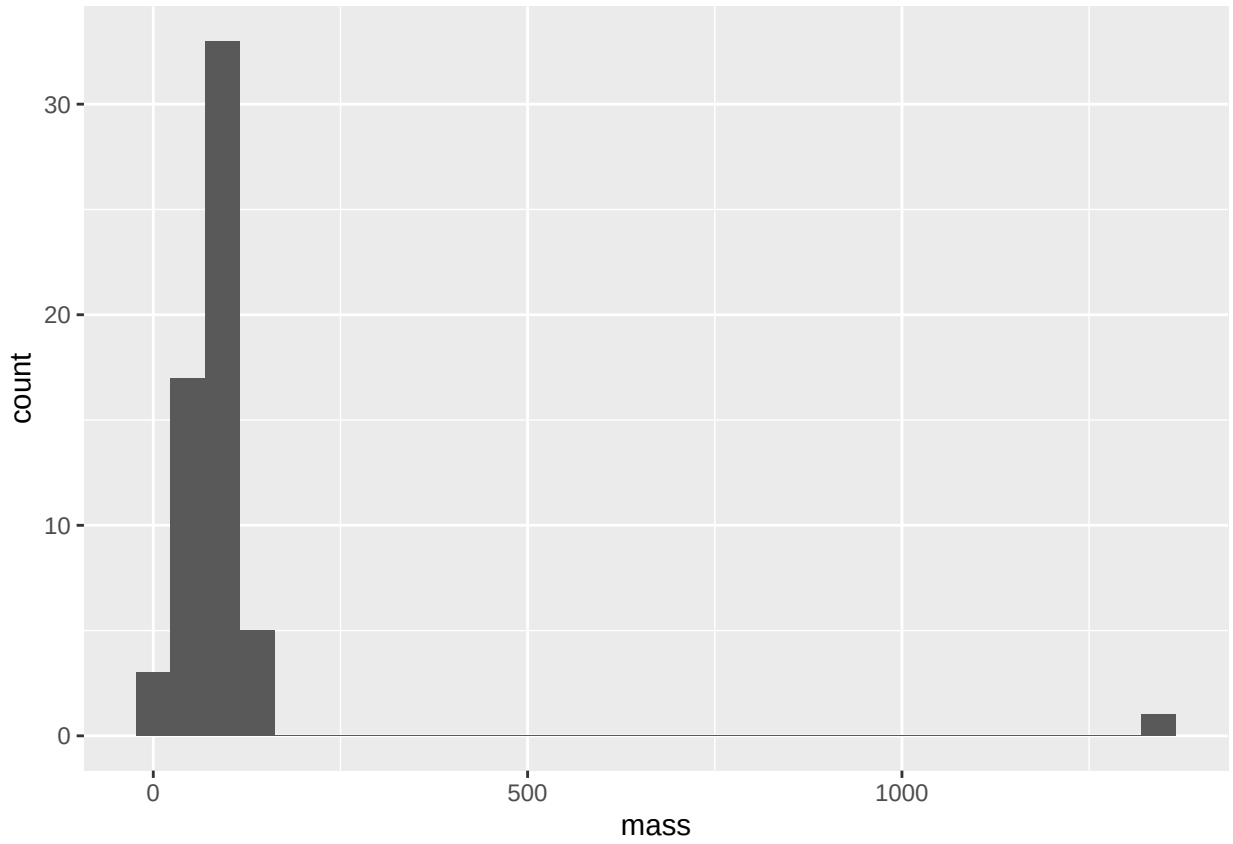
2. Add labels for `title`, `x` and `y` axes, and `size` of points. Knit again.

3. Try to create a histogram for the variable `mass` in `starwars`. Put your code in the chunk below.

```
ggplot(data = starwars, aes(x = mass)) +
   geom_histogram()
```

```
## `stat_bin()` using `bins = 30`. Pick better value with `binwidth`.
```

```
## Warning: Removed 28 rows containing non-finite values (stat_bin).
```




```
starwars %>%
   arrange(desc(mass)) %>%
   print(n = 4, width = Inf)
```

```
## # A tibble: 87 x 13
##   name                  height  mass hair_color skin_color
##   <chr>                  <int> <dbl> <chr>      <chr>
## 1 Jabba Desilijic Tiure    175  1358 <NA>       green-tan, brown
## 2 Grievous                 216   159 none       brown, white
## 3 IG-88                    200   140 none       metal
## 4 Darth Vader              202   136 none       white
##   eye_color     birth_year gender        homeworld species films
##   <chr>              <dbl> <chr>         <chr>     <chr>   <list>
## 1 orange               600  hermaphrodite Nal Hutta Hutt    <chr [3]>
## 2 green, yellow         NA  male          Kalee     Kaleesh <chr [1]>
## 3 red                   15  none          <NA>      Droid   <chr [1]>
## 4 yellow                41.9 male         Tatooine  Human   <chr [4]>
##   vehicles  starships
##   <list>    <list>
## 1 <chr [0]> <chr [0]>
## 2 <chr [1]> <chr [1]>
## 3 <chr [0]> <chr [0]>
## 4 <chr [0]> <chr [1]>
## # ... with 83 more rows
```

Stage, commit and push

1. Stage your modified Rmd file.

2. Commit your changes with message: “complete plots”
3. Push your changes to your GitHub repo.
4. Verify your files were updated on GitHub.

You will go over all of these steps again in tomorrow’s lab

References

1. SWAPI - The Star Wars API . (2020). Swapi.co. Retrieved from https://swapi.co/