

Quarto & R Demo

[Insert Name]

Packages for class

Note: You can run code in a few different ways. You can click the green arrow in the code chunk; use a keyboard short cut (Ctrl+Enter for PC; Cmd+Return for Mac). For a list of other keyboard shortcuts, please visit the following: <https://support.posit.co/hc/en-us/articles/200711853-Keyboards-Shortcuts-in-the-RStudio-IDE>

```
library(tidyverse)
```

```
-- Attaching core tidyverse packages ----- tidyverse 2.0.0 --
v dplyr      1.1.2      v readr      2.1.4
v forcats    1.0.0      v stringr    1.5.0
v ggplot2    3.4.2      v tibble     3.2.1
v lubridate  1.9.2      v tidyr      1.3.0
v purrr      1.0.1
-- Conflicts ----- tidyverse_conflicts() --
x dplyr::filter() masks stats::filter()
x dplyr::lag()     masks stats::lag()
i Use the conflicted package (<http://conflicted.r-lib.org/>) to force all conflicts to become
```

Quarto is great

Quarto enables you to weave together content and executable code into a finished document. To learn more about Quarto see <https://quarto.org>.

mtcars

For the remainder of the class, we will use the `mtcars` data set.

- Take a glimpse of the data set using the `glimpse` function in R. Let's also label our code chunk!

```
glimpse(mtcars)
```

Rows: 32

Columns: 11

```
$ mpg <dbl> 21.0, 21.0, 22.8, 21.4, 18.7, 18.1, 14.3, 24.4, 22.8, 19.2, 17.8, ~
$ cyl <dbl> 6, 6, 4, 6, 8, 6, 8, 4, 4, 6, 6, 8, 8, 8, 8, 8, 4, 4, 4, 4, 8, ~
$ disp <dbl> 160.0, 160.0, 108.0, 258.0, 360.0, 225.0, 360.0, 146.7, 140.8, 16~
$ hp <dbl> 110, 110, 93, 110, 175, 105, 245, 62, 95, 123, 123, 180, 180, 180~
$ drat <dbl> 3.90, 3.90, 3.85, 3.08, 3.15, 2.76, 3.21, 3.69, 3.92, 3.92, 3.92, ~
$ wt <dbl> 2.620, 2.875, 2.320, 3.215, 3.440, 3.460, 3.570, 3.190, 3.150, 3.~
$ qsec <dbl> 16.46, 17.02, 18.61, 19.44, 17.02, 20.22, 15.84, 20.00, 22.90, 18~
$ vs <dbl> 0, 0, 1, 1, 0, 1, 0, 1, 1, 1, 1, 0, 0, 0, 0, 0, 1, 1, 1, 1, 0, ~
$ am <dbl> 1, 1, 1, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 0, 1, 1, 1, 0, 0, ~
$ gear <dbl> 4, 4, 4, 3, 3, 3, 3, 4, 4, 4, 4, 3, 3, 3, 3, 3, 4, 4, 4, 3, 3, ~
$ carb <dbl> 4, 4, 1, 1, 2, 1, 4, 2, 2, 4, 4, 3, 3, 3, 4, 4, 4, 1, 2, 1, 1, 2, ~
```

It's a good habit to commit and push after you answer questions. Let's demo this now!

- Use `?` before the function name to get more information about the pre-loaded data in R. Type this in the console. Click on **Get a glimpse of your data** in the help window.
- Now, filter out the any cars who weigh more than 4000 lbs *in a single pipeline*.

```
#insert code here
```

- Notice how the data were not overwritten by running `mtcars` in the console.

Now, filter out the any cars who weigh more than 4000 lbs and save the new data set named `small_cars`.

```
#insert code here
```

- Using your new data set, take the mean weight of cars using the `summarise` function. Report the mean below. Hint, look up the help file to the function, and scroll down to the examples.

```
#insert code here
```

Render

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. Note: if something is wrong with your code, your document will not render.

Optional

- Visit the follow website: <https://dplyr.tidyverse.org/reference/index.html>

Choose a function of your choice and try to implement it on these data below

```
#insert code here
```