

Week Two Skills

Tidyverse and Base R:

- I know the difference between Tidyverse and Base R.
- I have an idea of the advantages and disadvantages of each.

Loops:

`for()`, `while()`, `in`, `apply()`

- I can write a "for" loop using indices.
- I can write a "for" loop from an existing vector or data frame.
- I can write a "while" loop.
- I can use 'apply()' instead of a loop.

Conditionals:

`if()`, `else if()`, `else()`

- I can write useful "if" statements.

Functions:

`function()`, `return()`, `source()`

- I can write my own simple functions.
- I know what a script is.
- I can call scripts from sources to load functions.

Dataset Exploration:

`filter()`, `arrange()`, `select()`

- I can investigate an unknown data frame.
- I can subset a data frame by column.
- I can subset a data frame by row conditions.
- I can sort a data frame.

Creating variables:

`mutate()`, `summarize()`, `group_by()`, `mutate_at()`, `summarize_at()`

- I can create new variables as needed in a dataset.
- I can find variable attributes, like mean and median, by group.

Plotting:

`ggplot()`, `aes()`, `geom_bar()`, `geom_boxplot()`, `geom_histogram()`, `geom_point()`

`ggtitle()`, `xlab()`, `ylab()`, `scale_x_continuous()`, `scale_y_continuous()`, `facet()`

- I can make a plot appropriate to my research question

- I can adjust the colors and labels as needed.
- I can make multiple plots across different values of a categorical variable.