Week 0 Lab

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Quarto

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

Running Code

When you click the **Render** button a document will be generated that includes both content and the output of embedded code. You can embed code like this:

```
1 + 1
```

```
[1] 2
```

To run the code prior to rendering, simply click the play button on the above code chunk. The output will display beneath it.

Packages

`R` has the ability to install and load `packages` which are groups of functions created by other people for specific uses. This is one of the biggest draws of `R`, as specific fields can build packages to meet their needs.

Do the following:

1. Remove the `#` from the start of each line of code.
2. Press the play button.
3. Replace the `#` at the start of each line.

```
#install.packages("rmarkdown")
#install.packages("ggplot2")
#install.packages("survival")
#install.packages("car")
#install.packages("coin")
#install.packages("palmerpenguins")
#install.packages("finalfit")
```

Once a package is installed, it is permanently on your computer and you do not need to install it again. To run more efficiently, `R` only starts in "base" mode, meaning only packages that came with the initial install are loaded when you start `R` each time. If you want to use a specific package, say `ggplot2` when coding, you'll need to "load" it in with the following code:

```
library(ggplot2)
```

Notice nothing pops up when you do this, which is common for most packages. Now there are a wide number of additional functions you can use.

Example Homework Problem

A homework problem will look like the following:

Problem 1

Create a new vector named x which contains the values 0 and 1. To do so, type into the box below:

$x <- c(0,1)$

Print the vector by typing just x on a new line underneath.

```
x <- c(0,1)
x
```

```
[1] 0 1
```

Add 5 to the vector. Type

$x+5$

```
x+5
```

```
[1] 5 6
```

Divide the vector my 0. Type

$x/0$

```
x/0
```

```
[1] NaN Inf
```

Submitting

Submit the following to Canvas:

- Your rendered PDF titled Lastname_0R. Make sure your name is at the top of the document.
- Your .qmd file