Lab 1. Intro to RMarkdown & Github

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Objectives

In this lab you will:

- test the R installation you've performed
- review some R basics
- learn the basics of an RMarkdown file
- intiate a new Github repository for your work.

R Installation

You should have already gone through the basics of R installation following tutorials posted in the course module. In addition to R, you should also have downloaded RStudio.

Let's test the basics of your R installation by checking the version

```
version
```

```
##               _
## platform      x86_64-apple-darwin15.6.0
## arch          x86_64
## os            darwin15.6.0
## system        x86_64, darwin15.6.0
## status
## major         3
## minor         6.1
## year          2019
## month         07
## day           05
## svn rev       76782
## language      R
## version.string R version 3.6.1 (2019-07-05)
## nickname      Action of the Toes
```

Basics of R

Getting Started

Next we will review some R basics.

Let's get started with some basic R commands and best practices. For any scripts your produce, alwaysannotate and mark your code. To comment in R, just input a # before your notes. Update your name.

```
# This is a comment made by Marynia.
```

When you have questions, use the help function. A question mark serves as a shortcut.

```
? mean
```

Packages

Load all packages and dependencies at the start of your code. Depending on the package, some installationstake longer than others. Quotes are required, and there are multiple options. Check the source documentationswhen you have questions.

```
#  install.packages("lubridate")
```

You only need to install once, but you'll have to import the package each time you open the session.

```r
library(rgdal)
```

```
## Loading required package: sp
```

```
## rgdal: version: 1.4-8, (SVN revision 845)
##  Geospatial Data Abstraction Library extensions to R successfully loaded
##  Loaded GDAL runtime: GDAL 2.4.2, released 2019/06/28
##  Path to GDAL shared files: /Library/Frameworks/R.framework/Versions/3.6/Resources/library/rgdal/gdal
##  GDAL binary built with GEOS: FALSE
##  Loaded PROJ.4 runtime: Rel. 5.2.0, September 15th, 2018, [PJ_VERSION: 520]
##  Path to PROJ.4 shared files: /Library/Frameworks/R.framework/Versions/3.6/Resources/library/rgdal/p
##  Linking to sp version: 1.3-2
```

```r
library(foreign)
library(lubridate)
```

```
##
## Attaching package: 'lubridate'
```

```
## The following object is masked from 'package:base':
##
##     date
```

Next, quickly review the *Intro R* highlights available on our class Github site. This reviews working directory basics, simple operations, data structures, basic summary statistics, basic elementwise operations, and more.