**Building a Shiny App**

Shiny apps are built using the shiny package in RStudio.

Setting Up Directory and Creating New App Script

1. Launch RStudio
2. Create a new project in a new working directory by navigating to File >> New Directory >> New Project
3. In the dialogue box, name the folder that will contain the app files
4. Browse to choose the location in which this folder will be created and click “Create Project”
5. Open a new R script by File >> New File >> R Script
6. Save the file as app.R
7. Save any necessary files to app directory
8. Reference for app formats: <https://shiny.rstudio.com/articles/app-formats.html>

Building Out Single-File App Script Structure

1. Install shiny package if not already installed by running the command install.packages("shiny") in RStudio console
2. The first line of the app.R script should be library(shiny)
3. A ui variable should be created that defines the user interface layout

(Ex): ui <- fluidPage(…)

1. A server function should be defined to create the server logic for the app,

(Ex): server <- function(input,output) {…}

1. The final line of the app.R script should be shinyApp(ui = ui, server = server) which takes the ui variable and server function to create the app

References/Tutorials for Building App

* Reference for functions used to build layout, inputs, etc: <https://shiny.rstudio.com/reference/shiny/1.6.0/>
* Links to documentation on starting, building, improving, and sharing apps: <https://shiny.rstudio.com/articles/>
* Written Shiny tutorial: <https://shiny.rstudio.com/tutorial/written-tutorial/lesson1/>
* Video Shiny tutorial: <https://shiny.rstudio.com/tutorial/#video-tutorials>