Web Apps in R

Shiny Package
- Shiny is an R package that allows you to build **interactive Web Apps**
- There are several **extension** packages to Shiny
    - Shinythemes, shinydashboard, shinyjs, etc.
- Web apps can be deployed on your **own server** (eg. Digital Ocean) or to **Shinyapps.io**
- There are lots of example codes to get you started at the **Shiny Gallery** (https://shiny.rstudio.com/)

Goals to learn:
1. Structure of a Shiny web app
2. Examples of Shiny web app
3. How to build a simple interactive web app

Structure of a Shiny Web App
1. **3 components:**
    a. User interface (**ui.R**)
    b. Server function (**server.R**)
    c. shinyApp function (fuses the UI and server components)
2. The **UI** is the frontend that accepts user input values
3. The **Server** is the backend that process these input values to finally produce output results that are finally displayed on the website
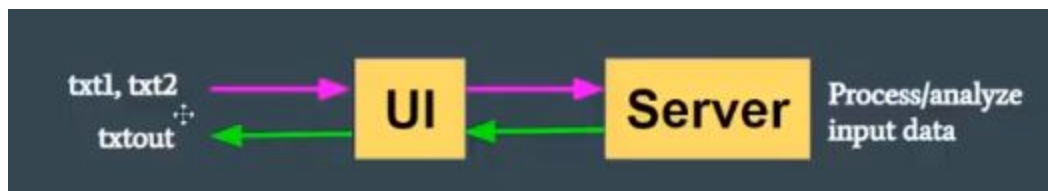

Shiny Themes
- Code:
    ui <- fluidPage(theme = shinytheme("superhero"),
- To check the themes available: https://rstudio.github.io/shinythemes/

How does the UI and the Server interact?

How the App Looks: