

Introduction To Shiny: Takeaways

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Syntax

- Running a Shiny Assumes there is a folder named example in the working directory which contains valid Shiny code:

```
runApp("example")
```

- Example of an interface function used to create the interface for a Shiny app (in app.R):

```
ui <- fluidPage(  
  # Application title  
  titlePanel("Old Faithful Geyser Data"),  
  # Sidebar with a slider input for number of bins  
  sidebarLayout(  
    sidebarPanel(  
      sliderInput("bins",  
                  "Number of bins:",  
                  min = 1,  
                  max = 50,  
                  value = 30)  
    ),  
    # Show a plot of the generated distribution  
    mainPanel(  
      plotOutput("distPlot")  
    )  
  )  
)
```

- Example of a Shiny server function that handles the backend interface for a Shiny app (in app.R):

```
server <- function(input, output) {  
  output$distPlot <- renderPlot({  
    # generate bins based on input$bins from ui.R  
    x <- faithful[, 2]  
    bins <- seq(min(x), max(x), length.out = input$bins + 1)  
    # draw the histogram with the specified number of bins  
    hist(x, breaks = bins, col = 'darkgray', border = 'white')  
  })  
}
```

Concepts

- The Shiny package enables a user to create interactive web applications.
- Web applications are programs or software that you can run in your browser.
- RStudio provides a convenient way to instantly create some boilerplate code for starting a Shiny App.

- Shiny looks for files with particular names. In this lesson, it specifically looks for a file named `app.R` and runs everything inside this file. Changing the names of these files will result in errors.
- A Shiny app has two main components: a user interface and a server. Specifically, we must specify code for a `ui` argument that constructs the interface that the user sees, and we must create a `server` argument that takes in inputs from the interface, uses them to alter an output, and makes these outputs available for display in the interface.
- An input needs an `inputId` to help distinguish it from other inputs in the app.

Resources

- [RStudio's site for Shiny](#)
- [The Github repo for Shiny](#)