This tutorial is deprecated. Learn more about Shiny at our new location, shiny.rstudio.com.

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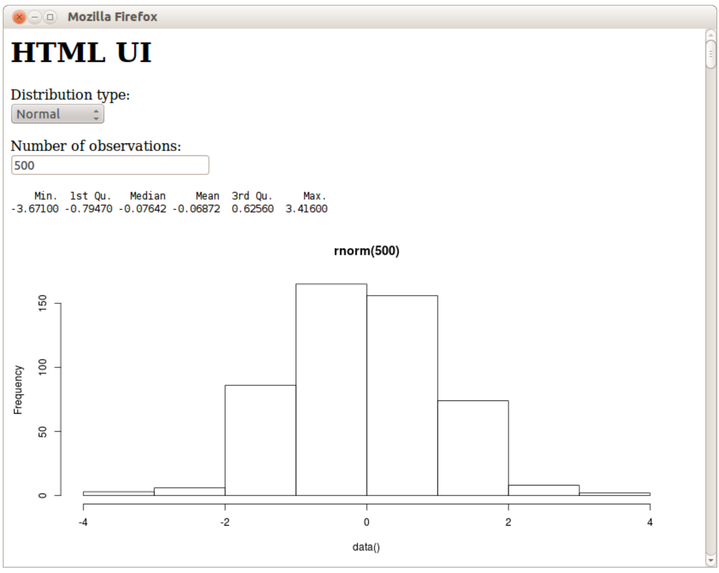

The HTML UI application demonstrates defining a Shiny user-interface using a standard HTML page rather than a ui.R script. To run the example type:

```
> library(shiny)
> runExample("08_html")
```

Defining an HTML UI

The previous examples in this tutorial used a ui.R file to build their user-interfaces. While this is a fast and convenient way to build user-interfaces, some appliations will inevitably require more flexiblity. For this type of application, you can define your user-interface directly in HTML. In this case there is no ui.R file and the directory structure looks like this:

```
<application-dir>
|-- www
    |-- index.html
|-- server.R
```

In this example we re-write the front-end of the Tabsets application using HTML directly. Here is the source code for the new user-interface definition:

www/index.html

```
<html>

<head>
  <script src="shared/jquery.js" type="text/javascript"></script>
  <script src="shared/shiny.js" type="text/javascript"></script>
  <link rel="stylesheet" type="text/css" href="shared/shiny.css"/>
</head>

<body>
  <h1>HTML UI</h1>

  <p>
    <label>Distribution type:</label><br />
    <select name="dist">
      <option value="norm">Normal</option>
      <option value="unif">Uniform</option>
      <option value="lnorm">Log-normal</option>
      <option value="exp">Exponential</option>
    </select>
  </p>

  <p>
    <label>Number of observations:</label><br />
    <input type="number" name="n" value="500" min="1" max="1000" />
  </p>

  <pre id="summary" class="shiny-text-output"></pre>

  <div id="plot" class="shiny-plot-output"
       style="width: 100%; height: 400px"></div>

  <div id="table" class="shiny-html-output"></div>
</body>

</html>
```

There are few things to point out regarding how Shiny binds HTML elements back to inputs and outputs:

- HTML form elmements (in this case a select list and a number input) are bound to input slots using their `name` attribute.
- Output is rendered into HTML elements based on matching their `id` attribute to an output slot and by specifying the requisite css class for the element (in this case either shiny-text-output, shiny-plot-output, or shiny-html-output).

With this technique you can create highly customized user-interfaces using whatever HTML, CSS, and JavaScript you like.

Server Script

All of the changes from the original Tabsets application were to the user-interface, the server script remains the same:

server.R

```
library(shiny)

# Define server logic for random distribution application
shinyServer(function(input, output) {

  # Reactive expression to generate the requested distribution. This is
  # called whenever the inputs change. The output renderers defined
  # below then all used the value computed from this expression
  data <- reactive({
    dist <- switch(input$dist,
                   norm = rnorm,
                   unif = runif,
                   lnorm = rlnorm,
                   exp = rexp,
                   rnorm)

    dist(input$n)
  })

  # Generate a plot of the data. Also uses the inputs to build the
  # plot label. Note that the dependencies on both the inputs and
  # the data reactive expression are both tracked, and all expressions
  # are called in the sequence implied by the dependency graph
  output$plot <- renderPlot({
    dist <- input$dist
    n <- input$n

    hist(data(),
         main=paste('r', dist, '(', n, ')', sep=''))
  })

  # Generate a summary of the data
  output$summary <- renderPrint({
    summary(data())
  })

  # Generate an HTML table view of the data
  output$table <- renderTable({
    data.frame(x=data())
  })
})
```