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More Widgets - Mozilla Firefox

More Widgets

Choose a dataset:

rock

Number of observations to view:

10

Note: while the data view will show only the specified number of observations, the summary will still be based on the full dataset.

Update View

Summary

| area | | peri | | shape | | perm | |
|---------|---------|---------|----------|---------|-----------|---------|-----------|
| Min. | : 1016 | Min. | : 308.6 | Min. | : 0.09033 | Min. | : 6.30 |
| 1st Qu. | : 5305 | 1st Qu. | : 1414.9 | 1st Qu. | : 0.16226 | 1st Qu. | : 76.45 |
| Median | : 7487 | Median | : 2536.2 | Median | : 0.19886 | Median | : 130.50 |
| Mean | : 7188 | Mean | : 2682.2 | Mean | : 0.21811 | Mean | : 415.45 |
| 3rd Qu. | : 8870 | 3rd Qu. | : 3989.5 | 3rd Qu. | : 0.26267 | 3rd Qu. | : 777.50 |
| Max. | : 12212 | Max. | : 4864.2 | Max. | : 0.46413 | Max. | : 1300.00 |

Observations

| | area | peri | shape | perm |
|----|------|---------|-------|--------|
| 1 | 4990 | 2791.90 | 0.09 | 6.30 |
| 2 | 7002 | 3892.60 | 0.15 | 6.30 |
| 3 | 7558 | 3930.66 | 0.18 | 6.30 |
| 4 | 7352 | 3869.32 | 0.12 | 6.30 |
| 5 | 7943 | 3948.54 | 0.12 | 17.10 |
| 6 | 7979 | 4010.15 | 0.17 | 17.10 |
| 7 | 9333 | 4345.75 | 0.19 | 17.10 |
| 8 | 8209 | 4344.75 | 0.16 | 17.10 |
| 9 | 8393 | 3682.04 | 0.20 | 119.00 |
| 10 | 6425 | 3098.65 | 0.16 | 119.00 |

The More Widgets application demonstrates the help text and submit button widgets as well as the use of embedded HTML elements to customize formatting. To run the example type:

```
> library(shiny)
> runExample("07_widgets")
```

UI Enhancements

In this example we update the Shiny Text application with some additional controls and formatting, specifically:

- We added a `helpText` control to provide additional clarifying text alongside our input controls.
- We added a `submitButton` control to indicate that we don't want a live connection between inputs and outputs, but rather to wait until the user clicks that button to update the output. This is especially useful if computing output is computationally expensive.
- We added `h4` elements (heading level 4) into the output pane. Shiny offers a variety of functions for including HTML elements directly in pages including headings, paragraphs, links, and more.

Here is the updated source code for the user-interface:

```
ui.R

library(shiny)

# Define UI for dataset viewer application
shinyUI(pageWithSidebar(

  # Application title.
  headerPanel("More Widgets"),

  # Sidebar with controls to select a dataset and specify the number
  # of observations to view. The helpText function is also used to
  # include clarifying text. Most notably, the inclusion of a
  # submitButton defers the rendering of output until the user
  # explicitly clicks the button (rather than doing it immediately
  # when inputs change). This is useful if the computations required
  # to render output are inordinately time-consuming.
  sidebarPanel(
    selectInput("dataset", "Choose a dataset:",
               choices = c("rock", "pressure", "cars")),

    numericInput("obs", "Number of observations to view:", 10),

    helpText("Note: while the data view will show only the specified",
             "number of observations, the summary will still be based",
             "on the full dataset."),

    submitButton("Update View")
  ),

  # Show a summary of the dataset and an HTML table with the requested
  # number of observations. Note the use of the h4 function to provide
  # an additional header above each output section.
  mainPanel(
    h4("Summary"),
    verbatimTextOutput("summary"),

    h4("Observations"),
    tableOutput("view")
  )
))
```

Server Script

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

```
server.R

library(shiny)
library(datasets)

# Define server logic required to summarize and view the selected dataset
shinyServer(function(input, output) {

  # Return the requested dataset
  datasetInput <- reactive({
    switch(input$dataset,
           "rock" = rock,
           "pressure" = pressure,
           "cars" = cars)
  })

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

  # Show the first "n" observations
  output$view <- renderTable({
    head(datasetInput(), n = input$obs)
  })
})
```

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