Shiny Course July 2019

How to use "Shiny Gallery" https://shiny.rstudio.com/gallery/ (https://shiny.rstudio.com/gallery/)

The gallery provides samples.

Shinyギャラリーにはサンプルがあります。

If you find samples that provid　もしサンプルが以下を提供していたら

- ui.R
- server.R

What you should do is to copy and paste them.

Example "Faithful"

" You should copy and paste them as;

Note: You have to write "ui <-" and "server <-" besides the copy-and-paste.

コピーペーストするときには、コピペ対象のほかに、"ui <-", "server <-" を別途、書き加える必要があります。

```
ui <- bootstrapPage(

  selectInput(inputId = "n_breaks",
      label = "Number of bins in histogram (approximate):",
      choices = c(10, 20, 35, 50),
      selected = 20),

  checkboxInput(inputId = "individual_obs",
      label = strong("Show individual observations"),
      value = FALSE),

  checkboxInput(inputId = "density",
      label = strong("Show density estimate"),
      value = FALSE),

  plotOutput(outputId = "main_plot", height = "300px"),

  # Display this only if the density is shown
  conditionalPanel(condition = "input.density == true",
    sliderInput(inputId = "bw_adjust",
        label = "Bandwidth adjustment:",
        min = 0.2, max = 2, value = 1, step = 0.2)
  )

)
```

```
server <- function(input, output) {

  output$main_plot <- renderPlot({

    hist(faithful$eruptions,
      probability = TRUE,
      breaks = as.numeric(input$n_breaks),
      xlab = "Duration (minutes)",
      main = "Geyser eruption duration")

    if (input$individual_obs) {
      rug(faithful$eruptions)
    }

    if (input$density) {
      dens <- density(faithful$eruptions,
          adjust = input$bw_adjust)
      lines(dens, col = "blue")
    }

  })
}
```

使う

1 file

If you write them in the same file; uiとserverとを同じファイルに書いたなら、最後に１行、加えます。

Add a line

```
shinyApp(ui = ui, server = server)
```

Your one file should be: 全部でこんなファイル。

```r
ui <- bootstrapPage(

  selectInput(inputId = "n_breaks",
      label = "Number of bins in histogram (approximate):",
      choices = c(10, 20, 35, 50),
      selected = 20),

  checkboxInput(inputId = "individual_obs",
      label = strong("Show individual observations"),
      value = FALSE),

  checkboxInput(inputId = "density",
      label = strong("Show density estimate"),
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  plotOutput(outputId = "main_plot", height = "300px"),

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    sliderInput(inputId = "bw_adjust",
        label = "Bandwidth adjustment:",
        min = 0.2, max = 2, value = 1, step = 0.2)
  )

)

server <- function(input, output) {

  output$main_plot <- renderPlot({

    hist(faithful$eruptions,
      probability = TRUE,
      breaks = as.numeric(input$n_breaks),
      xlab = "Duration (minutes)",
      main = "Geyser eruption duration")

    if (input$individual_obs) {
      rug(faithful$eruptions)
    }

    if (input$density) {
      dens <- density(faithful$eruptions,
          adjust = input$bw_adjust)
      lines(dens, col = "blue")
    }

  })
}

shinyApp(ui = ui, server = server)
```

2 files

If you save two files "ui.R" and "server.R" in the directory "hoge",

Command below will activate your app.

2ファイル "ui.R" "server.R" で"hoge"というディレクトリに保存したら、 "hoge"ディレクトリを以下のように
runApp()ファンクションにRコマンドで渡せば、アプリが立ち上がります。

```
runApp("hoge")
```