

Intro to Shiny Practical 1

Prac 1: Run your first app

```
library(shiny)

ui <- fluidPage(
  # Allow user to define two numbers
  numericInput(inputId = "add_1", label = "Number:", value = 0),
  numericInput(inputId = "add_2", label = "Number:", value = 0),
  # Display the output
  textOutput(outputId = "sum")
)

server <- function(input, output) {
  output$sum <- renderText({
    input$add_1 + input$add_2
  })
}

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

```
##
## Listening on http://127.0.0.1:8531
```

Number:

Number:

0

Make sure you can run it both:

- from the console (note: you'll have to save it first)
- using the “Run App” button

Add some code to show the result of subtracting the two numbers (hint: $inputadd_1 - inputadd_2$)

.yt[Your Turn: Design a user interface]

- Open the “prac1_shiny” , and copy the code into an empty R file

```
vignette("prac1_shiny", package = "BristolVis")
```

- Identify the opening and closing brackets of the elements of `.cb[sidebarLayout]` (e.g. `.cb[sidebarLayout()]`, `.cb[sidePanel()]`, `.cb[mainPanel()]`)
- Run the app
- Make the following changes:
 - Change the title of the app to “Demo of a shiny app”
 - Add a new `selectInput` widget to the sidebar, with the options “sex”, “diet”, and “status”
 - Add a new `textInput` widget to the sidebar with the label “Plot title:”
- What is the value of `.cb[input$textbox]` when the following is entered in it?
This is a test

.yt[Your Turn: Create reactive content]

- Open the “prac2_shiny” vignette, and copy the code into an empty R file

```
vignette("prac2_shiny", package = "BristolVis")
```

- Run the app to familiarise yourself with it
- Examine the code used to produce the table in the UI/server
 - Why is the table not being displayed in the app?
 - Fix the code in the UI so that the table is displayed in the `.cb[mainPanel]`
- Examine the code used to produce the plot in the UI/server
 - Update the code so that the colour is set by the value of `.cb[input$pointcolour]`
 - Update the code so that the title of the plot is defined by the value of the input from the `.cb[inputTextbox]` widget
- Re-run the app to ensure that the changes have worked