

Making Your Toolbox Shine with Shiny

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What is Shiny?

Shiny is an R package developed by the RStudio team that lets you develop an interactive web application in R.

You do this with two files:

- ▶ `ui.R` (where you define the user interface)
- ▶ `server.R` (where you define the server logic)

Only need to know R.

No need to know HTML, PHP, or Javascript/jQuery/AJAX.

Empty ui.R

```
library(shiny)

shinyUI(pageWithSidebar(
  headerPanel("Application Title"),
  sidebarPanel(
    # Input UI elements go here.
  ),
  mainPanel(
    # Output UI elements go here.
  )
))
```

Empty server.R

```
library(shiny)

shinyServer(function(input,output){

  # Server logic goes here.

  # You assign reactive elements to 'output' list.
  # You use elements from the 'input' list.

})
```

Getting Started

To install the package

```
install.packages("shiny", repos="http://cran.rstudio.com/")
```

Extensive tutorial by RStudio

<http://rstudio.github.io/shiny/tutorial/>

Built-in demos

```
shiny::runExample(example="name")
```

Valid example names are: 01_hello, 02_text, 03_reactivity, 04_mpg, 05_sliders, 06_tabsets, 07_widgets, 08_html, 09_upload, 10_download, 11_timer

Examples

Source Code: <https://github.com/bearloga/useR-shiny-talk>

Example 1: Random Walk

Illustrates the fundamental ideas in Shiny via some basic inputs and outputs.

Example 2: 2D Kernel Density Estimation

A slightly more advanced Shiny application (app).

Example 3: Regression (Car Speed vs Stopping Distance)

This app introduces conditional panels and tabs to visualize curve fitting methods on [transformed] data.

From Here

Shiny Server <https://github.com/rstudio/shiny-server>

How-to Guides for Deploying on Amazon EC2:

- ▶ <http://mpopov.com/post/40976561625/shiny-server-amazon-ec2-guide>
- ▶ <http://www.r-bloggers.com/deploying-shiny-server-on-amazon-ec2/>

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Thank You

Examples Source Code

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