

Building Web Apps with R Shiny

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2021-07-11

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Overview

Placeholder

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0.2 Code Horizons Course (27-30 July 2021)

0.2.1 Schedule

0.2.1.1 Day 1

0.2.1.2 Day 2

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0.3 Computing

0.4 Who Should Register?

0.5 Further Resources

0.6 Glossary

Chapter 1

Your First Shiny App

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1.1.1 Set Up the Demo App

1.1.2 Modify the Demo App

1.1.3 Add New Things

1.2 Overview of the UI/server structure

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1.2.1.1 Tags

1.2.1.2 Page Layout

1.3 Inputs, outputs, and action buttons

1.3.1 Inputs

1.3.2 Outputs

1.3.3 Action buttons

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1.6 Exercises

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2.1 Basic template for shinydashboard projects

2.2 Sidebar, menu navigation, and tabs

2.3 Row- and column-based layouts

2.4 Glossary

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Inputs

Placeholder

3.1 Input functions

3.1.1 `textInput`

3.1.2 `textAreaInput`

3.1.3 `selectInput`

3.1.4 `checkboxGroupInput`

3.1.5 `checkboxInput`

3.2 Setting inputs programmatically

3.3 Glossary

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Outputs

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4.0.2 `uiOutput`

4.0.3 `plotOutput`

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4.0.6 `dataTableOutput`

4.1 **Glossary**

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Reading and saving data

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5.2 Google Sheets

5.2.1 Authorisation for Apps

5.2.2 Accessing an existing sheet

5.2.3 Make a new sheet

5.2.4 Add data

5.2.5 Appending data

5.3 Glossary

Chapter 6

Reactive functions

`\begin{figure}`

Addition Demo

First number

0

•

•

Second number

0

•

•

Add Numbers

`{ 0 + 0 = 0`

6.1 Glossary

Chapter 7

CSS, HTML, and Javascript

7.1 Glossary

Chapter 8

Structuring a complex app

8.1 Glossary

Chapter 9

Debugging and error handling

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9.1 RStudio Console Messages

9.2 JavaScript Console

9.3 Showcase Mode

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13.4.2 2. New Instance

13.4.3 3. Altering modules

13.4.4 4. New module

Appendix A

Installing R

Installing R and RStudio is usually straightforward. The sections below explain how and there is a helpful YouTube video [here](#).

A.1 Installing Base R

Install base R from <https://cran.rstudio.com/>. Choose the download link for your operating system (Linux, Mac OS X, or Windows).

If you have a Mac, install the latest release from the newest `R-x.x.x.pkg` link (or a legacy version if you have an older operating system). After you install R, you should also install XQuartz to be able to use some visualisation packages.

If you are installing the Windows version, choose the “base” subdirectory and click on the download link at the top of the page. After you install R, you should also install RTools; use the “recommended” version highlighted near the top of the list.

If you are using Linux, choose your specific operating system and follow the installation instructions.

A.2 Installing RStudio

Go to rstudio.com and download the RStudio Desktop (Open Source License) version for your operating system under the list titled **Installers for Supported Platforms**.

A.3 Installing LaTeX

You can install the LaTeX typesetting system to produce PDF reports from RStudio. Without this additional installation, you will be able to produce reports in HTML but not PDF. To generate PDF reports, you will additionally need:

1. pandoc, and
2. LaTeX, a typesetting language, available for
 - WINDOWS: MikTeX
 - Mac OS: MacTex (3.2GB download) or BasicTeX (78MB download, but should work fine)
 - Linux: TeX Live

Appendix B

Git and GitHub

Placeholder

B.1 Get a GitHub account

B.2 Set up RStudio

B.2.1 Install git

B.2.2 Enable version control in RStudio

B.3 Set your GitHub info

B.4 Create an SSH Key on RStudio

B.5 Create an SSH Key on GitHub

Appendix C

Symbols

Placeholder