



Building Shiny Apps

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A hands-on introduction

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Introduction

The purpose of this book is to help you to develop Shiny apps with zero to little knowledge of R. Shiny is a web framework, developed by RStudio Inc., which allows to quickly build prototypes and in many cases even production versions of data-driven applications.

We live on the information age, and that's a curse and a blessing. When I started my own journey into Shiny, I felt a bit overwhelmed by the documentation, both because of its abundance but also by its depth. Yes, the documentation is definitely excellent, and the team in RStudio are really supportive to the user community, but I've always felt that it was a bit too much for beginners. I personally find that the documentation is written for technically-minded people, however, it is really a great tool for business users as well.

During my consulting experience at a global organization, I saw that many of my colleagues were eager to learn, and, quite capable. When I showed them the essential parts of the documentation to get the work done, they could easily get started on their own and answer their own questions.

My intention is not to rewrite the documentation. What I am offering you is the essential parts of it to help you get started, the *curated* documentation, if you wish. These are the parts I learned through trial, error and experimentation with my colleagues (sorry guys).

The structure of the book is as follows: We'll do a quick introduction to R and the package dplyr (version 0.5.0) for data wrangling. We will not cover this in detail, as more advanced users may rely on the excellent documentation provided by Hadley Wickham, Chief Scientist of the RStudio foundation, and dplyr's creator. Then we'll follow with ggplot2, an excellent plotting package (also from Hadley Wickham) that seamlessly integrates with dplyr. From here, thanks to the support for ggplot from plot.ly, there's just one more step to beautiful plots. On Chapter 3, we will cover the main features of Shiny and guide you through an example. Chapter 4 is about building dashboards using the shinydashboard package. Finally, in Chapter 5, we will cover maps using the Leaflet package. The book is example-guided and expects that the reader will put some effort to it.

Source codes and datasets for the exercises are available through Github or on request.