

## Lab 7: Shiny

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September 20, 2021

### Part 1 Publishing your first Shiny app

#### 1.1 Set up account on shinyapps.io

Go to [shinyapps.io](https://shinyapps.io) and either log in with your existing account or create an account using either the “Log in with Github” option with your GitHub account or the “Log in with Google” option with your Amherst email. If you are already logged into either account on another tab, it should automatically recognize the account.

By default, you will be set up with a free plan that limits you to 5 active shiny apps on your account.

Keep this tab open.

#### 1.2 Publish your first app

1. Open *lab07a\_shiny-baby-names* folder and open *app.R*.

While the application folder can have any name, the shiny app script must be named “app.R” in order to publish.

2. Update the app so that (1) the default name choice is your name; (2) the default sex is whichever one you want (options are limited to “M” or “F”); (3) the text for the title panel is something informative.
3. Click “Run App” in upper right corner to make sure it’s working as expected (update if not).
4. Once the app is running as expected, click “Publish” in upper right corner.
5. Follow the instructions in the box that pops up to link your shinyapps.io account with your RStudio.
6. Go back to shinyapps.io in your browser, and click “Dashboard”. You should be able to see your Shiny app under “Recent Applications”. To verify it’s working on the web, click on the app, then click on the URL.
7. Congratulations, you’ve published your first Shiny app! If you make edits locally, you can re-deploy the app by clicking *Publish* again. When you eventually want to publish more and more apps but run out of space on your free account (a cap of 5 active apps on the free plan), you can archive and then delete any apps you no longer want to be active.

Part 2 **Shiny app: Skateboard** Open the *lab07b-shiny-skateboards* folder and the corresponding *app.R* file. Choose one of the options below to update your app. It can be helpful to isolate parts of the app while you work. To facilitate this, separate files have been provided for you that reproduce only a single app tab (histogram, scatterplot, and table).

**Option 1:** Update the template to still explore the skateboards dataset, but with different app functionality. Update (1) at least 2 different widgets and (2) either the layout (e.g. not in tabs or different page layout) or the theme (check out the [shinythemes package](#)). Like a challenge? Incorporate one of the click, hover, or brush features (read about plot [interactions](#)).

**Option 2:** use this as a template to create a Shiny app for a one of the following datasets from the **fivethirtyeight** package: `candy_rankings` (candy characteristics and popularity); `hate_crimes` (hate crimes in US states, 2010-2015); `mad_men` (tv performers and their post-show career), `ncaa_w_bball_tourney` (women's NCAA div 1 basketball tournament, 1982-2018); or `nfl_suspensions` (NFL suspensions, 1946-2014). The data dictionaries are included in pdfs on Moodle and in this lab folder.