Exercises: Basic shinyApp and shinyapps.io

Exercises: Shiny in RMarkdown documents

Overview of Exercises

These exercises take you through the steps to write shinyApps within your RMarkdown presentations.

Exercise 1: Drawing Curves

1. Presentation setup:

1.1. Create a new project for these exercises - name it appropriately.

1.2. Create a new Slidy presentation file in your project

1.3. Change the first slide title to "Drawing Curves" and insert a new code chunk in which you'll write your shinyApp

1.4 Add `runtime: shiny` to the preamble of the presentation

2. Copy and paste the template for a Shiny app into your code chunk

```
library(shiny)
shinyApp(
  ui = ,
  server = function(input, output){

  }
)
```

3. Add a fluidPage to the ui argument which contains the following arguments:

3.1 sliderInput with the following parameters:

- inputId = "exponent"
- label = "exponent"
- min = 1
- max = 5
- value 2

3.2 A wellPanel that contains text explaining what the slider is for

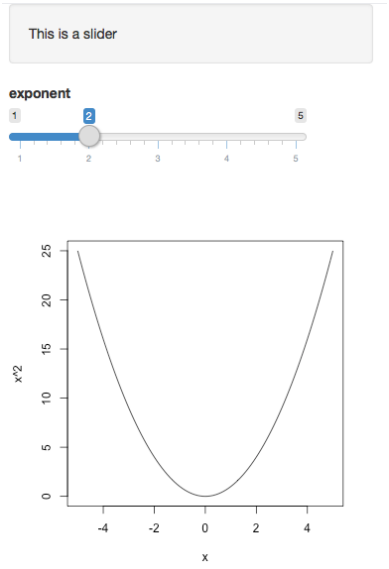
3.3 Knit your presentation together - you should see something like this

4. In the server function define a new variable for the output object (i.e. output$myThing) and assign it the following:

4.1 renderPlot

4.2 `curve(x^2, from = -5, to = 5)`

5. Add `plotOutput` to the ui argument and provide it the output object you defined above, knit together - you should have the following

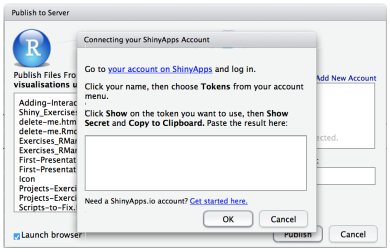


6. Modify the `curve` expression to be dependent on the input variable defined in `selectInput`
7. Knit together the presentation, the slider should update the plot now.

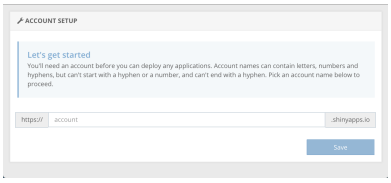
Exercise 2: Registering a shinyapps.io account

Publishing the shiny enabled presentation requires a shinyapps.io account - this is easy to set up.

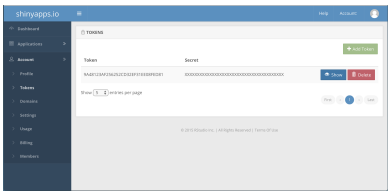
Knit the presentation file and select "publish" in the top-right of the window, you'll be presented with this dialog - select "Get started here"



Register for an account - it's free. Choose an appropriate account name, this can be changed later but will require all your shiny apps to be re-deployed.



Navigate to Account -> Tokens and select "Show" at shinyapps.io to expose your secret token, copy and paste this into RStudio.



Provide the shiny app with a name (this will be the URL for the shiny app - it therefore cannot contain spaces or anything else that is *unsafe* in URLs) and press "Publish" - your app will then be deployed to the web and your browser opened when it's finished.