

SHINY IN RMARKDOWN

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Agenda

- Introductions
- Rmarkdown
- Shiny
- Requirements
- Strategies
- Deployment
- Questions



RMarkdown

- Powerful production ready reporting tool
- Ability to schedule reports to automatically run using Connect
- Add iteration in addition to code
- Easy to convert to RMarkdown from Notebook mode.
- Eliminates need for copying pasting to Word



Shiny

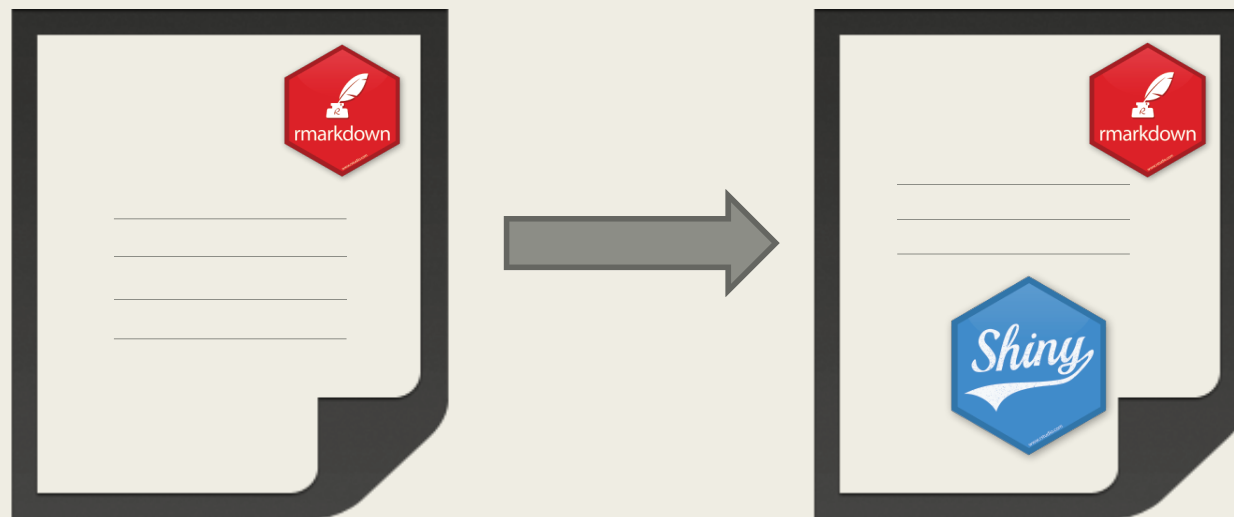
- Interactive visualization
- Same R code + a few reactive programming components
- Fully customizable
- Scalable



RMarkdown + Shiny



Another illustration



```
---  
title: "Wooly Doc"  
author: "Tonya Filz"  
date: "11/9/2017"  
output: html_document  
---
```



```
1 ---  
2 title: "ShinyWoolyDoc"  
3 author: "Tonya Filz"  
4 date: "11/8/2017"  
5 runtime: shiny  
6 output: html_document  
7 ---
```



Strategy 1: Call Basic Shiny Functions

```
```{r, echo=FALSE}
selectInput("wool",
 "wool",
 choices = levels(warppbreaks$wool))

df_subset <- reactive({
 a <- subset(warppbreaks, wool == input$wool)
 return(a)
})

renderTable(df_subset())
```
```

This is a basic example of running a shiny app in an Rm
Because of the 'runtime: shiny' in the YAML header, this

wool

A
B

| | | |
|-------|---|---|
| 30.00 | A | L |
| 54.00 | A | L |

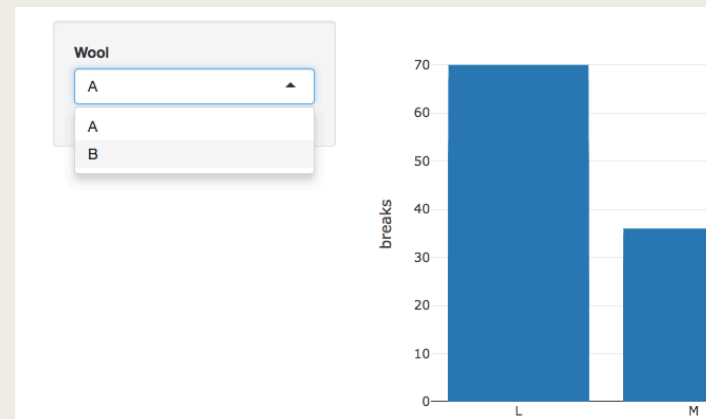
Strategy 2: Build a Shiny App In-line

```
6 `{{r, echo=FALSE}}
7 library(shiny)
8 library(plotly)
9 library(shinythemes)
10
11 ui <- fluidPage(
12   theme = shinytheme("superhero"),
13   titlePanel("A Woolly Run Time Example"),
14
15   sidebarLayout(
16     sidebarPanel(
17       selectInput("wool",
18                 "Wool",
19                 choices = levels(warpbreaks$wool))
20     ),
21
22     mainPanel(
23       plotlyOutput("plot")
24     )
25   )
26 )
27
28 server <- function(input, output, session) {
29   output$plot <- renderPlotly({
30     plot_ly(subset(warpbreaks, wool=input$wool), x= ~tension, y= ~breaks)
31   })
32 }
33
34 shinyApp(ui, server)
35 `{{`
```



Strategy 3: Insert a Local Shiny App

```
```{r, echo=FALSE}
shinyAppDir("/Users/tonyafilz/Documents/Webinars/Shiny\ in\ Rmd/SplitWoolApp",
 options=list(
 width="100%", height=400
)
)
```
```



Strategy 4: Insert a Hosted Shiny App

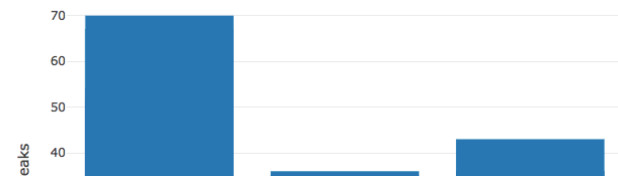
```
```{r, echo=FALSE}
knitr::include_app("https://tonya-rstudio.shinyapps.io/ShinyinRmd/")
```
```

What if you've already deployed this app to shinyapps.io or RStudio Connect and you want to embed it? Yep, you guessed it, you can do that as well.

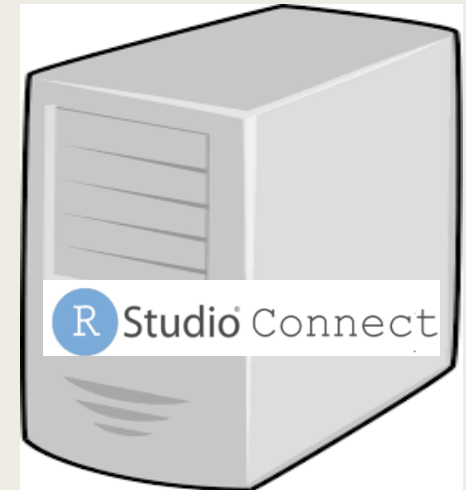
A Woolly Run Time Example

Wool

A
A
B



Deployment Options





EXAMPLE



QUESTIONS?



THANK YOU!