

# Week-8: Code-along and Challenge

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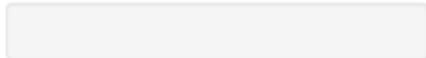
## Week 8 Code Screenshots

### I.

*# Screenshot of app*

```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-editedcode-ver-9.png")
```

## My Shiny App



**First level title**

**Second level title**

**Third level title**

**Fourth level title**

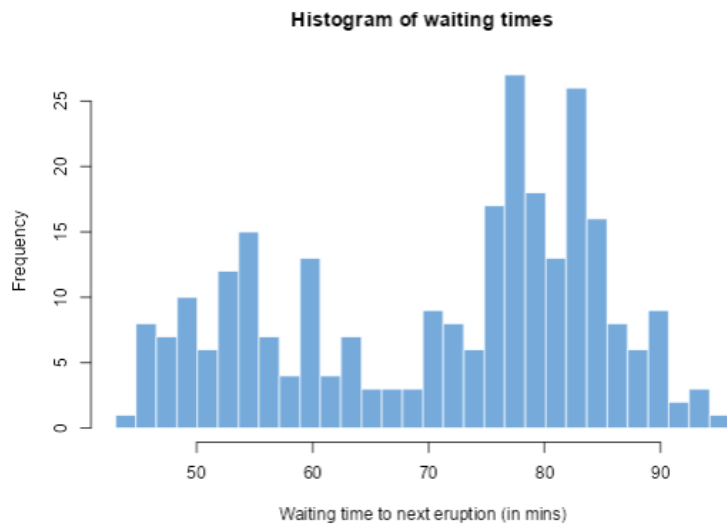
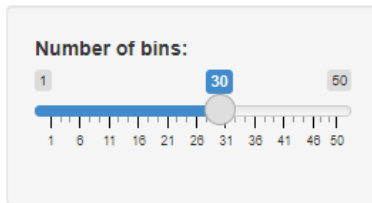
**Fifth level title**

**Sixth level title**

*# Screenshot of app*

```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-editedcode-ver-0.png")
```

# Hello Shiny!



This small Shiny application demonstrates Shiny's automatic UI updates.

Move the *Number of bins* slider and notice how the `renderPlot` expression is automatically re-evaluated when its dependant, `input$bins`, changes, causing a histogram with a new number of bins to be rendered.

app.R

↑ show with app

```
library(shiny)

# Define UI for app that draws a histogram ----
ui <- fluidPage(

  # App title ----
  titlePanel("Hello Shiny!"),

  # Sidebar layout with input and output definitions ----
  sidebarLayout(

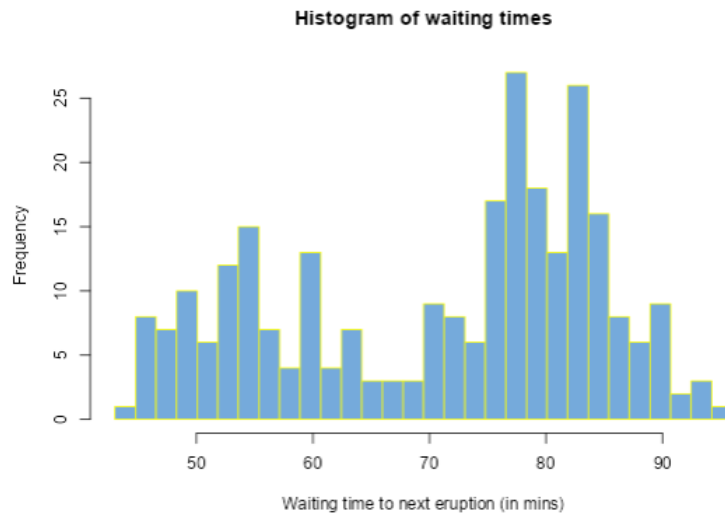
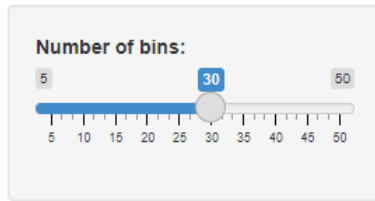
    # Sidebar panel for inputs ----
    sidebarPanel(

      # Input: Slider for the number of bins ----
      sliderInput(inputId = "bins",
                  label = "Number of bins:"),
```

*# Screenshot of results of edited code*

```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-editedcode-ver.png")
```

# Hello World!



```
# Screenshot of different headers
```

```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-editedcode-ver-1.png")
```

## My Shiny App

p creates a paragraph of text.

A new p() command starts a new paragraph. Supply a style attribute to change the format.

**strong()** makes bold text. *em()* creates italicised (i.e. emphasised) text.

`code displays your text similar to computer code`

div creates segments of text with a similar style. This division of text is all blue and oops i cant see anything else from the slide

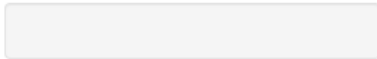
span does the same thing as div, but it works with groups of words that appear inside a paragraph.

###. Okay I dont know why, but my R Studio image will not pop up. However, there is a box indicative that an image should be there, so is that okay?

```
# Image in the main panel
```

```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-editedcode-ver-3.png")
```

## My Shiny App



p creates a paragraph of text.

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**strong()** makes bold text. *em()* creates italicised (i.e. emphasised) text.

code displays your text similar to computer code

div creates segments of text with a similar style. This division of text is all blue because I passed the argument 'style = color:blue' to div

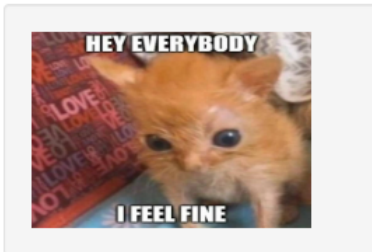
span does the same thing as div, but it works with groups of words that appear inside a paragraph.



*# Image in the side panel*

```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-editedcode-ver-2.png")
```

## My Shiny App



p creates a paragraph of text.

A new p() command starts a new paragraph. Supply a style attribute to change the format.

**strong()** makes bold text. *em()* creates italicised (i.e. emphasised) text.

code displays your text similar to computer code

div creates segments of text with a similar style. This division of text is all blue because I passed the argument 'style = color:blue' to div

span does the same thing as div, but it works with groups of words that appear inside a paragraph.

## II. Challenge

I ran example 3 and made the following changes:

1. I changed the data sets to iris and airquality.
2. I added the feature of plotting graphs based on the variables within the data set, with the user being able to pick which variables they want to plot against each other in the form of a scatter plot.

3. I also added a feature where a unique image for each dataset will be displayed if you pick a particular one; the iris dataset will show an image of an iris, while the airquality will yield a picture of a car's smoking exhaust pipe. Here are the screenshots!

```
# This is an example of iris data set.  
  
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-iris-upperhalf.png")
```

Custom Dataset Viewer

Custom Caption:  

This caption is customisable too

Choose a dataset:  

iris

Number of observations to view:  

5

☒ Show Summary

Custom Range:  

0

2

8

10

Select x-axis variable:  

Sepal.Width


Select y-axis variable:  

Sepal.Length

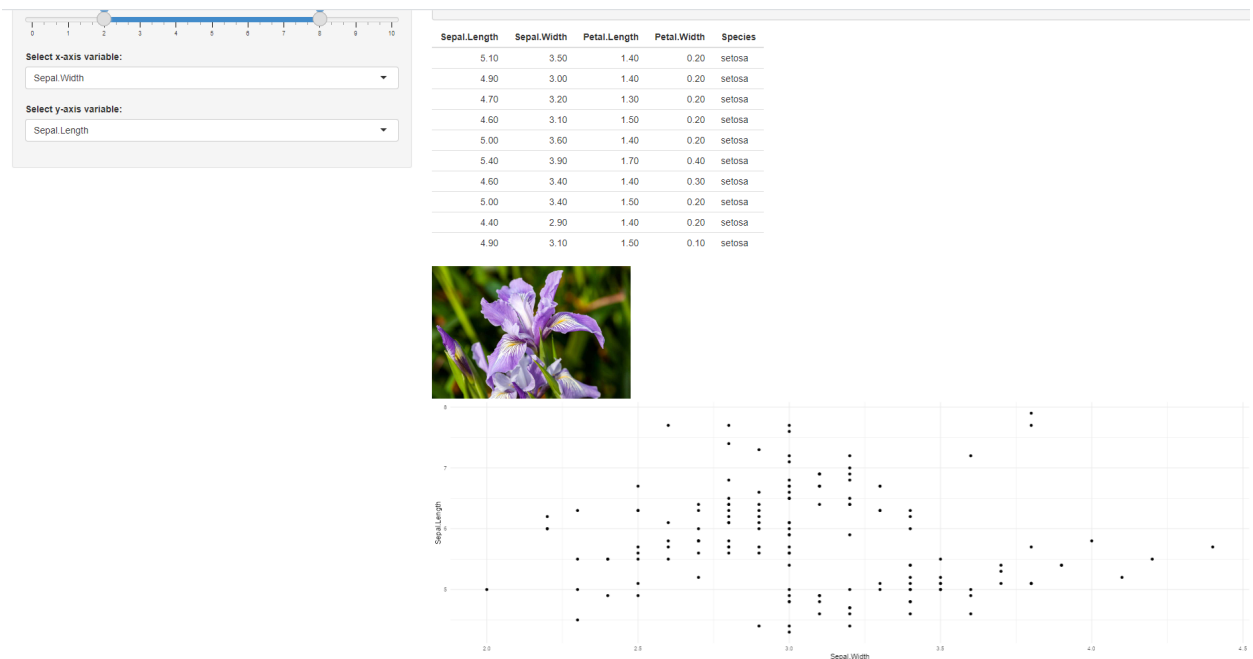
This caption is customisable too

Sepal.Length	Sepal.Width	Petal.Length
Min. :4.300	Min. :2.000	Min. :1.000
1st Qu.:5.100	1st Qu.:2.800	1st Qu.:1.600
Median :5.800	Median :3.000	Median :4.350
Mean :5.843	Mean :3.057	Mean :3.758
3rd Qu.:6.400	3rd Qu.:3.300	3rd Qu.:5.100
Max. :7.900	Max. :4.400	Max. :6.900
Petal.Width	Species	
Min. :0.100	setosa :50	
1st Qu.:0.300	versicolor:50	
Median :1.300	virginica :50	
Mean :1.199		
3rd Qu.:1.800		
Max. :2.500		

Sepal.Length	Sepal.Width	Petal.Length	Petal.Width	Species
5.10	3.50	1.40	0.20	setosa
4.90	3.00	1.40	0.20	setosa
4.70	3.20	1.30	0.20	setosa
4.60	3.10	1.50	0.20	setosa
5.00	3.60	1.40	0.20	setosa
5.40	3.90	1.70	0.40	setosa
4.60	3.40	1.40	0.30	setosa
5.00	3.40	1.50	0.20	setosa
4.40	2.90	1.40	0.20	setosa
4.90	3.10	1.50	0.10	setosa



```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-iris-lowerhalf.png")
```



# This is an example of airquality data set.

```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-air-upperhalf.png")
```

## Custom Dataset Viewer

**Custom Caption:**  
What's your caption?

**Choose a dataset:**  
airquality

**Number of observations to view:**  
5

☒ Show Summary

**Custom Range:**  
0 2 8 10

**Select x-axis variable:**  
Temp

**Select y-axis variable:**  
Ozone

What's your caption?

```
Ozone      Solar.R
Min.   : 1.00  Min.   : 7.0
1st Qu.: 18.00 1st Qu.:115.8
Median : 31.50 Median :205.0
Mean   : 42.13 Mean   :185.9
3rd Qu.: 63.25 3rd Qu.:258.8
Max.   :168.00 Max.   :334.0
NA's   :37     NA's   :7

Wind      Temp
Min.   : 1.700  Min.   :56.00
1st Qu.: 7.400  1st Qu.:72.00
Median : 9.700  Median :79.00
Mean   : 9.958  Mean   :77.88
3rd Qu.:11.500 3rd Qu.:85.00
Max.   :20.700 Max.   :97.00

Month      Day
Min.   :5.000  Min.   : 1.0
1st Qu.:6.000  1st Qu.: 8.0
Median :7.000  Median :16.0
Mean   :6.993  Mean   :15.8
3rd Qu.:8.000  3rd Qu.:23.0
Max.   :9.000  Max.   :31.0
```

Ozone	Solar.R	Wind	Temp	Month	Day
8	19	20.10	61	5	9
7	NA	6.90	74	5	11
6	78	18.40	57	5	18
4	25	9.70	61	5	23
7	48	14.30	80	7	15
7	49	10.30	69	9	24
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA



```
knitr::include_graphics("C:/Users/yeojy/Pictures/Screenshots/r-app-air-lowerhalf.png")
```

6	78	18.40	57	5	18
4	25	9.70	61	5	23
7	48	14.30	80	7	15
7	49	10.30	69	9	24
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA
NA	NA	NA	NA	NA	NA

