Mango Pagedown Test

Mango The Cat

2019-07-18

1 Chapter Name

1.1 Headings

Our training sections usually start at level 2.

1.2 Fonts

I've managed to change the fonts to Open Sans in `css/mango-fonts.css` that's about it.

1.2.1 Body

Open Sans Light

1.2.2 Titles

Might be OK Open Sans. We used to have level 3 as orange which is easy enough. The new font should be Din Regular I think. I've set this in the CSS but it might need to be installed. And even then it might default back to Open Sans. Need to watch this.

1.2.3 Numbering

Currently use `{chapter}.{section}.{sub-section}`.

Nice to haves would be a chapter front page saying Chapter `{Chapter Number} {Chapter Name}`.

1.2.4 Code

My guess is that the default code is OK but we might want to fancy it up a bit.

```
# A non-executed R-block

f <- function(x) {
  if (is.null(x)) 0 else x
}
```

where as python code might look like

```
# python code looks like this
def f(x):
    """Some big long docstring"""
    return(0 if x is null else x)
```

A code block that returns stuff looks like

```
f <- function(x) {
  if (is.null(x)) 0 else x
}

f(NULL)
```

```
## [1] 0
```

I wonder if that code output could be nicer. Not high priority.

1.2.5 Equations

Is it mathjax? I think so. So... It's double dollars for a big equation. I'm changing the font for math I think to Times then serif.

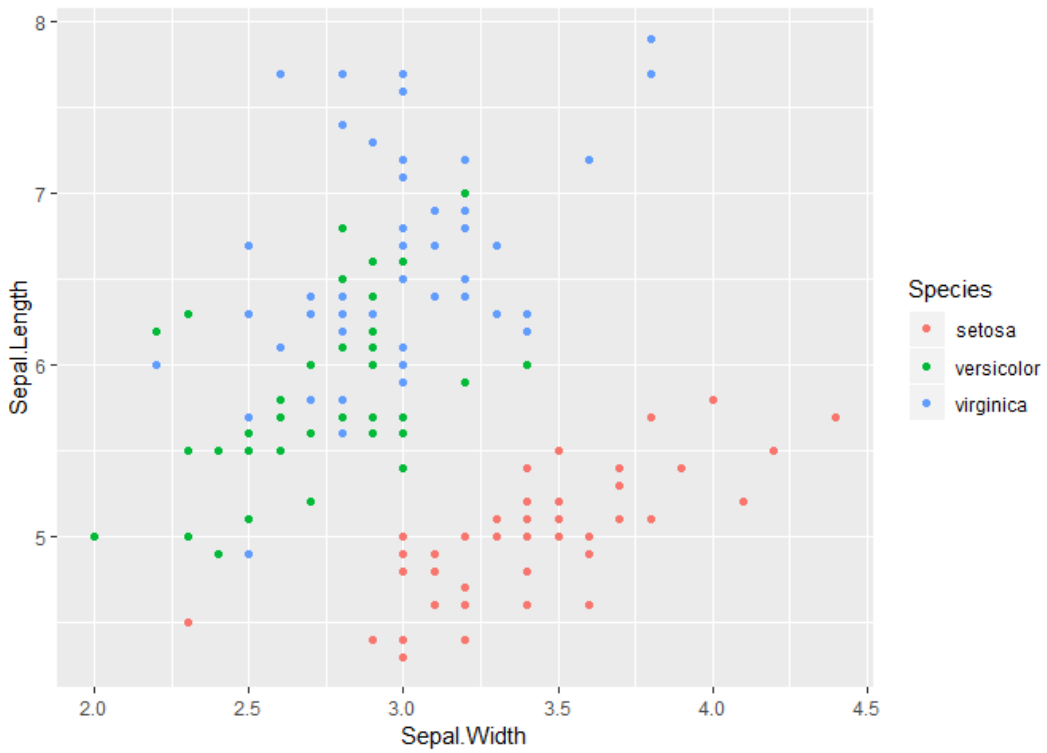
$$E = \gamma mc^2$$

And single dollars for inline $E = mc^2$ equations.

1.3 Plots

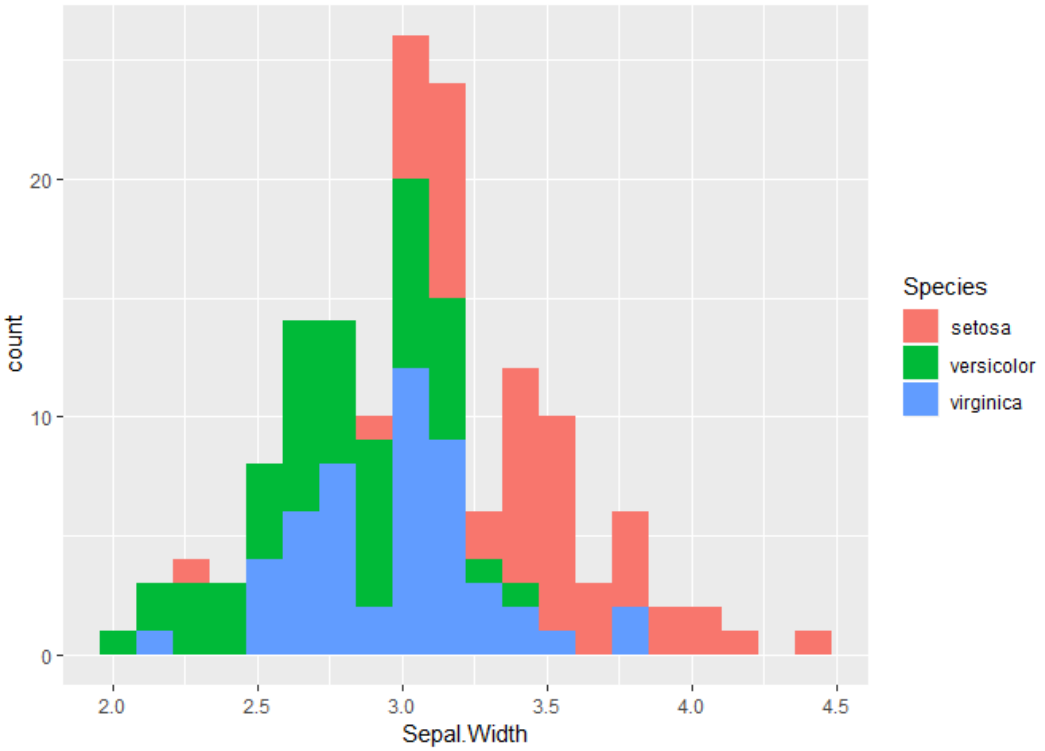
We do a fair amount of plots with code

```
library(ggplot2)
ggplot(iris) +
  geom_point(aes(x = Sepal.Width, y = Sepal.Length, colour =
Species))
```



We can manually control size but should have nie defaults

We might do plots with suppressed code.



1.4 Exercises and info boxes

We're going to need some way to make exercise boxes. This could be by applying a class to a section heading: `{.exercise}`

Exercise

It looks like you can use a section header and a class. The code here looks like:

```
### Exercise {.exercisebox - }
```

And then this puts everything until the next section heading in a div with the exercise class. The dash is the part that suppresses the section label. Everything else can be styled with css.

1. Question 1
2. Question 2

1.4.1 Warnings

Watch out!

Some important warning message. Again, the dash removes the numbering. There is examples of this already in the existing code.

1.4.2 Info

Interesting info

When we're done can put icons and style it nicely.

1.5 Python

Does Python just work? Well it does. Mostly. I'm having some issues with plots too that needs working out.

```
import pandas as pd
df = pd.DataFrame({'a': [1,2,3], 'b':['a', 'b', 'c']})
print(df.head())
```

```
##    a  b
## 0  1  a
## 1  2  b
## 2  3  c
```

Looks OK. I don't love the syntax highlighting but that might be a Pandoc thing. And does it carry through?

```
df.shape
```

```
## (3, 2)
```

OK Good. What about plots?

```
import seaborn as sns
import matplotlib.pyplot as plt
iris = sns.load_dataset("iris")
sns.pairplot(iris, hue="species")
plt.show()
```

The above works in a notebook but crashes in a separate render. What about pure matplotlib

```
import matplotlib.pyplot as plt
import numpy as np
x = np.random.random(20)
y = np.random.random(20)
plt.scatter(x, y)
plt.show()
```

No this hangs too when rendering separately. Darn. It's something to do with Matplotlib loading Qt. RStudio say they've fixed it but I don't think it's fixed.

Perhaps python will have to go into markdown separately until we can fix this?