Lecture 3 - More of Learning to Learn

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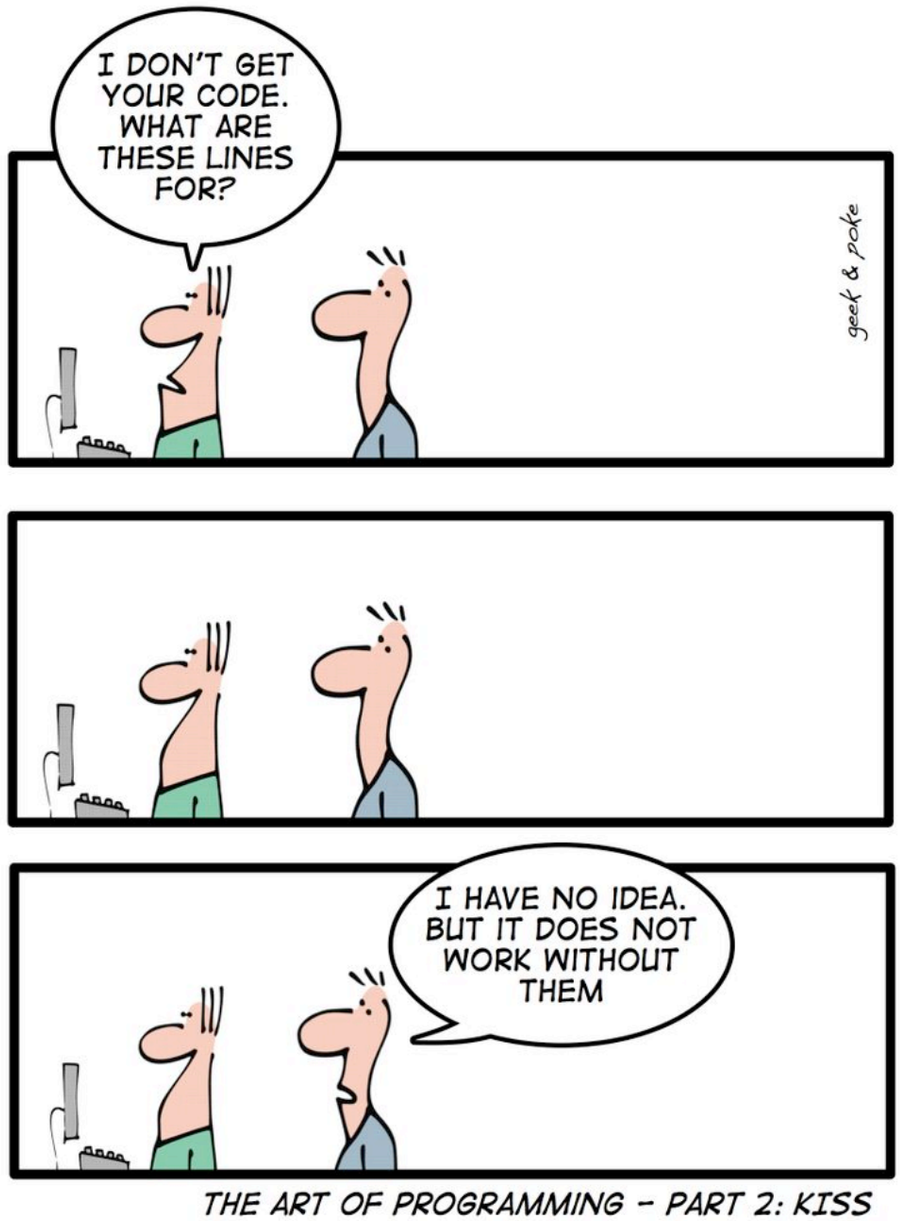
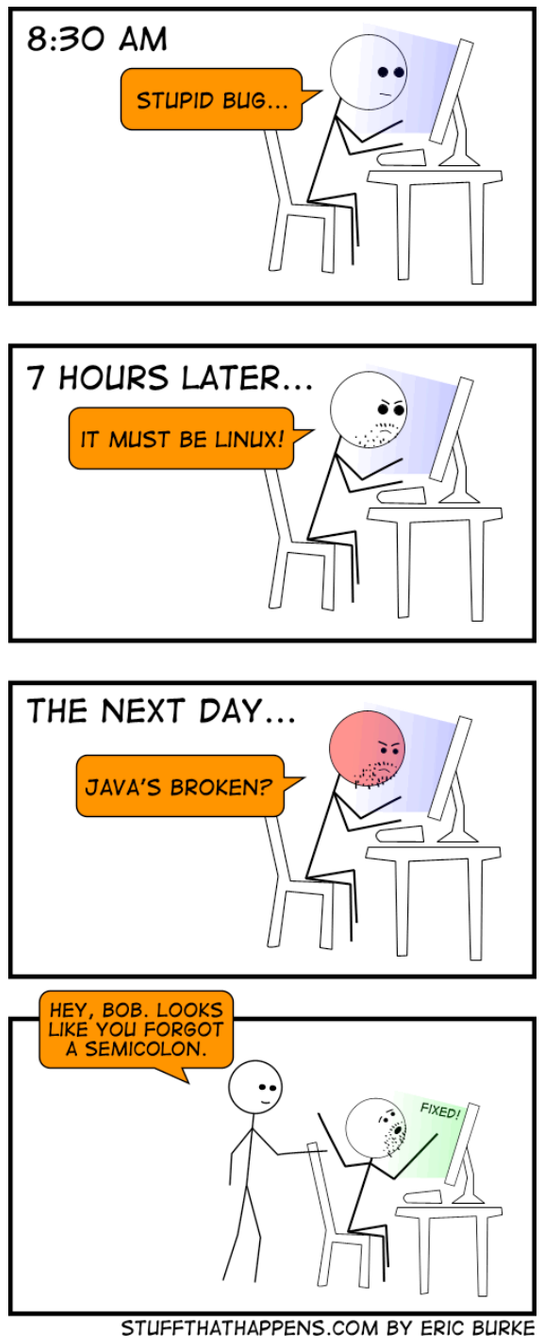
The struggles of syntax





Plan for today

- Quick recap
- Flipped classroom - a short presentation by Malvika and Rajshree on their solution for assignment 2
- A quick introduction to HTML
- Learning to scrape a webpage (written in HTML)

Quick Recap

- Objects : lego blocks
- Algorithm : a schematic to put together these blocks to build something useful
- Lists
- How to read files
- PRACTICE PROBLEM: learn how the syntax changes for writing to a file.

Recap - Visualize

- Code flow - http://www.pythontutor.com/visualize.html#mode=edit

- Highly encouraged to visualize any code you write to build intuition.

Recap - Dictionaries

- Dictionaries: (key, value) pairs.

```
covid_dict = {}


covid['India'] = [10,20,30,40,50]
covid['Canada'] = [12, 24,35,45,60]
```

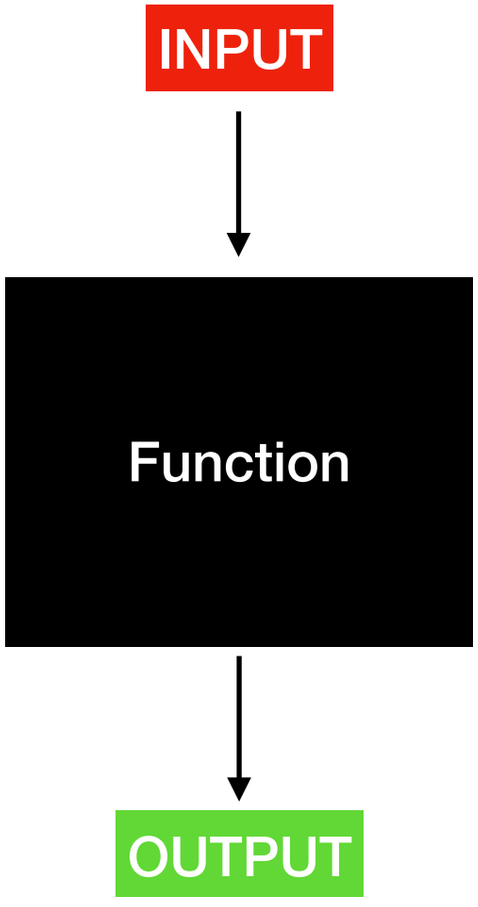
Recap - if else

- Making a decision based on some variable value

```
a = 1000
if a < 2000:
     print('less than 2000')

>> 'less than 2000'
```

Recap - Functions




```
def pythagorus(side_1,side_2):
    hyp_squared = squared(side_1) + squared(side_2)
    hypotenuse = np.sqrt(hyp_squared)
    return hypotenuse

print(pythagorus(6,8))
>> 10
```

Flipped Classroom

Very brief intro to HTML

- Web pages are written in HTML.
- HTML is made of tags like - <html>, <title>, <img>…
- Starting and closing tags: <html> vs </html>

```
<html>
    <head>
        <title>
            Simple Webpage
        </title>
    </head>
    <body>
        <p>
            Hello, welcome.
        </p>
    </body>
</html>
```

The <a> tag and <p> tag

- Bulk of scraping-
    - Getting text from a page
    - Getting links from a page
    - Going to one of the links on a page, and getting the text.
    - PRACTICE PROBLEM: Learn adding an image to your page with the <img> tag

Let’s code