Load Magic for More Fluid Activities

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CarpentryCon 2018

How do I logistically manage exercises in a workshop?

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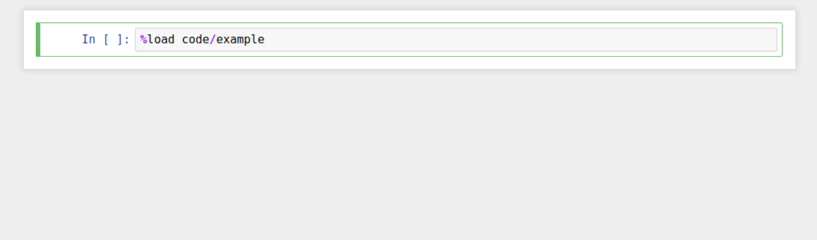
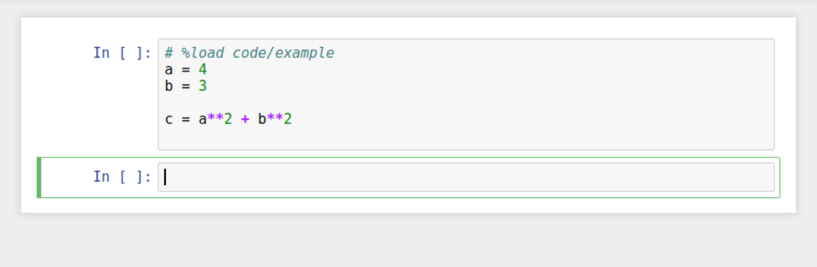
With Load Magic!



```
In [ ]: %load code/example
```

How do I logistically manage exercises in a workshop?

With Load Magic!

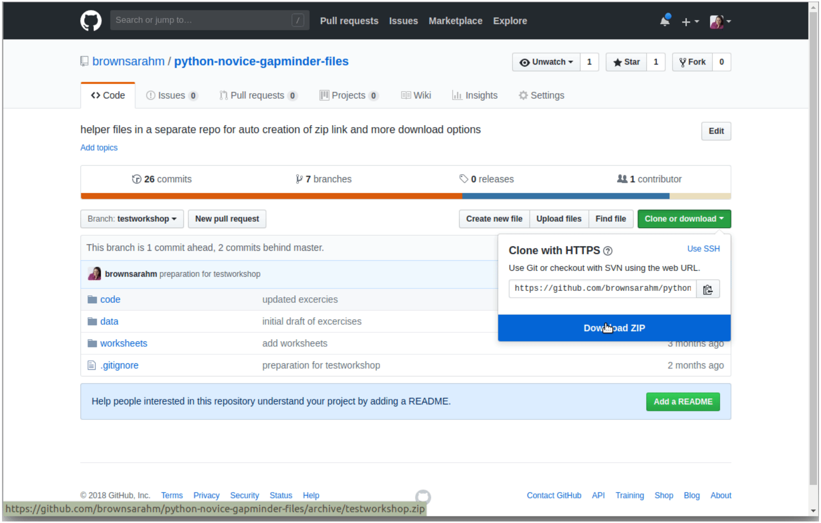


```
In [ ]: # %load code/example
        a = 4
        b = 3

        c = a**2 + b**2
```

```
In [ ]: 
```

How I set it up



brownsarahm / python-novice-gapminder-files

helper files in a separate repo for auto creation of zip link and more download options

26 commits · 7 branches · 0 releases · 1 contributor

This branch is 1 commit ahead, 2 commits behind master.

brownsarahm preparation for testworkshop

code	updated excercies	
data	initial draft of excercises	
worksheets	add worksheets	3 months ago
.gitignore	preparation for testworkshop	2 months ago

Clone with HTTPS

Use Git or checkout with SVN using the web URL.

```
https://github.com/brownsarahm/python
```

Help people interested in this repository understand your project by adding a README.

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https://github.com/brownsarahm/python-novice-gapminder-files/archive/testworkshop.zip

It helps students focus on the coding during exercises

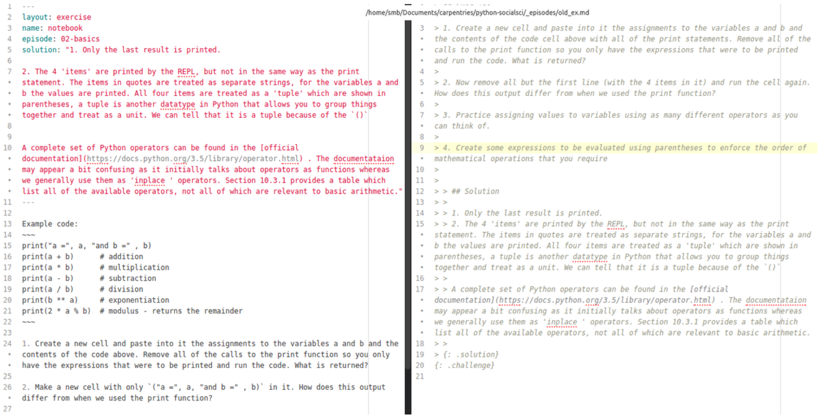
Fewer syntax errors, less frustration

No window switching, lower cognitive load

Overall, more time thinking about and completing exercises

Load Magic can make prep and management better too

Come Chat at the Poster Session



```
---
layout: exercise
name: notebook
episode: 02-basics
solution: "1. Only the last result is printed.

2. The 4 'items' are printed by the REPL, but not in the same way as the print
statement. The items in quotes are treated as separate strings, for the variables a and
b the values are printed. All four items are treated as a 'tuple' which are shown in
parentheses, a tuple is another datatype in Python that allows you to group things
together and treat as a unit. We can tell that it is a tuple because of the `()`


A complete set of Python operators can be found in the [official
documentation](https://docs.python.org/3.5/library/operator.html) . The documentataion
may appear a bit confusing as it initially talks about operators as functions whereas
we generally use them as 'inplace ' operators. Section 10.3.1 provides a table which
list all of the available operators, not all of which are relevant to basic arithmetic."
---

Example code:
~~~
print("a =", a, "and b =" , b)
print(a + b)      # addition
print(a * b)      # multiplication
print(a - b)      # subtraction
print(a / b)      # division
print(b ** a)     # exponentiation
print(2 * a % b)  # modulus - returns the remainder
~~~

1. Create a new cell and paste into it the assignments to the variables a and b and the
contents of the code above. Remove all of the calls to the print function so you only
have the expressions that were to be printed and run the code. What is returned?

2. Make a new cell with only `("a =", a, "and b =" , b)` in it. How does this output
differ from when we used the print function?

```

/home/smb/Documents/carpentries/python-socialsci/_episodes/old_ex.md

```
> 1. Create a new cell and paste into it the assignments to the variables a and b and
the contents of the code cell above with all of the print statements. Remove all of the
calls to the print function so you only have the expressions that were to be printed
and run the code. What is returned?
>
> 2. Now remove all but the first line (with the 4 items in it) and run the cell again.
How does this output differ from when we used the print function?
>
> 3. Practice assigning values to variables using as many different operators as you
can think of.
>
> 4. Create some expressions to be evaluated using parentheses to enforce the order of
mathematical operations that you require
>
>
> > ## Solution
> >
> > 1. Only the last result is printed.
> > 2. The 4 'items' are printed by the REPL, but not in the same way as the print
statement. The items in quotes are treated as separate strings, for the variables a and
b the values are printed. All four items are treated as a 'tuple' which are shown in
parentheses, a tuple is another datatype in Python that allows you to group things
together and treat as a unit. We can tell that it is a tuple because of the `()`
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we generally use them as 'inplace ' operators. Section 10.3.1 provides a table which
list all of the available operators, not all of which are relevant to basic arithmetic.
> >
> {: .solution}
{: .challenge}

```

Note the lack of >>