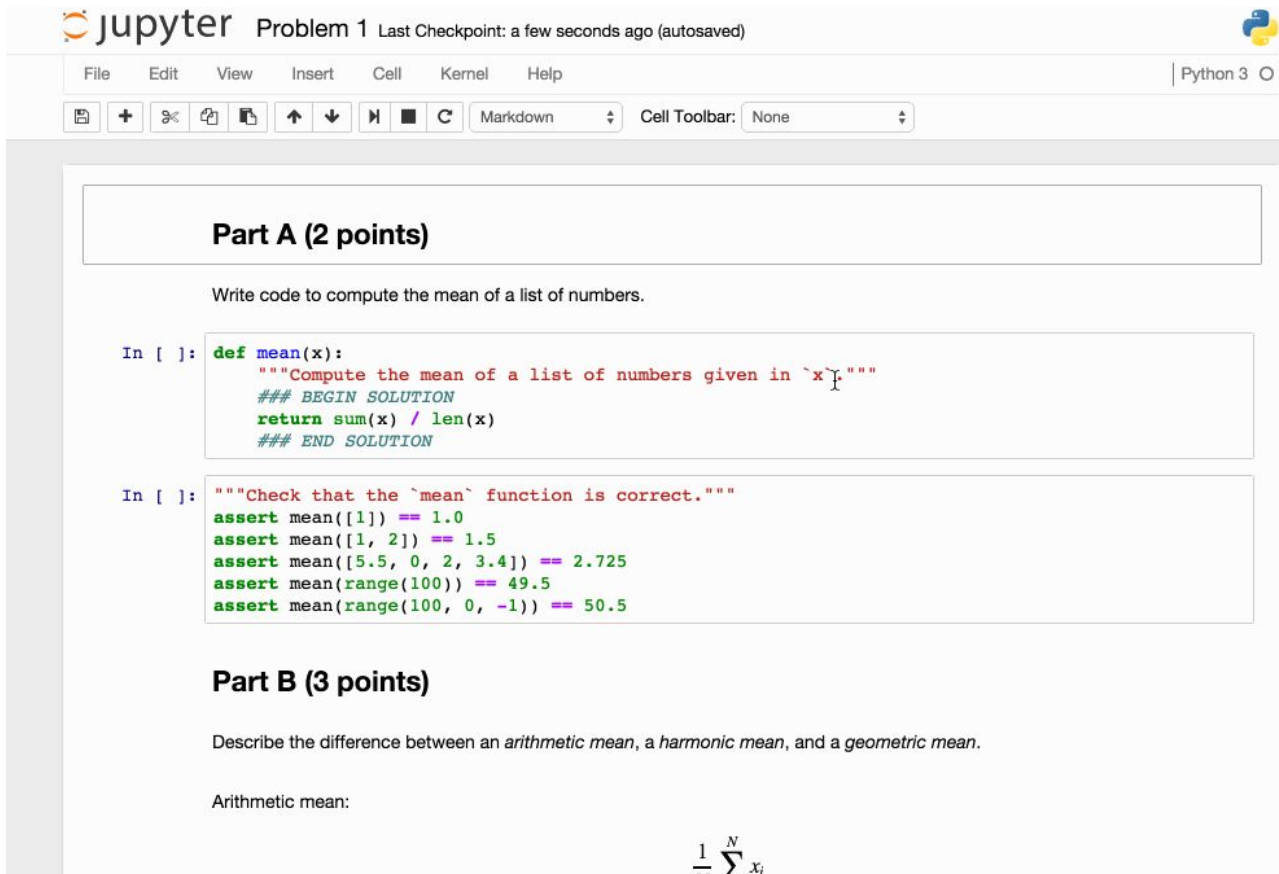


Other Moons

And final thoughts

nbgrader

A system for assigning and grading Jupyter notebooks.



The screenshot shows a Jupyter notebook titled "Problem 1" with a status bar indicating "Last Checkpoint: a few seconds ago (autosaved)". The interface includes a menu bar (File, Edit, View, Insert, Cell, Kernel, Help) and a toolbar with icons for file operations and cell execution. The notebook content is divided into two sections:

Part A (2 points)

Write code to compute the mean of a list of numbers.

```
In [ ]: def mean(x):  
        """Compute the mean of a list of numbers given in `x`"""  
        ### BEGIN SOLUTION  
        return sum(x) / len(x)  
        ### END SOLUTION
```

```
In [ ]: """Check that the `mean` function is correct."""  
assert mean([1]) == 1.0  
assert mean([1, 2]) == 1.5  
assert mean([5.5, 0, 2, 3.4]) == 2.725  
assert mean(range(100)) == 49.5  
assert mean(range(100, 0, -1)) == 50.5
```

Part B (3 points)

Describe the difference between an *arithmetic mean*, a *harmonic mean*, and a *geometric mean*.

Arithmetic mean:

$$\frac{1}{N} \sum_{i=1}^N x_i$$

nbdime

nbdime provides tools for diffing and merging of Jupyter Notebooks.

- nbdiff compare notebooks in a terminal-friendly way
- nbmerge three-way merge of notebooks with automatic conflict resolution
- nbdiff-web shows you a rich rendered diff of notebooks
- nbmerge-web gives you a web-based three-way merge tool for notebooks
- nbshow present a single notebook in a terminal-friendly way

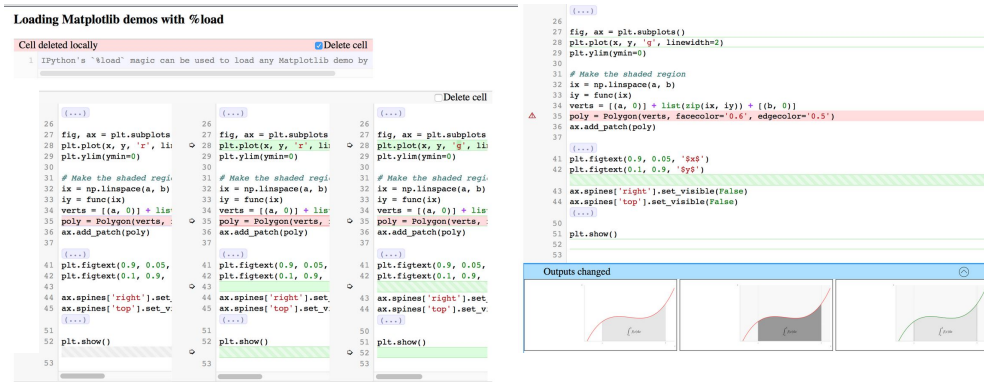
```
!!! D:\ipython 2018-11-30 13:12:30
```

```
## modified /cells/9/outputs/0/data/text/plain:
```

```
- <matplotlib.figure.Figure at 0x10ea05940>  
+ <matplotlib.figure.Figure at 0x10eb21860>
```

```
## replaced /cells/14/outputs/0/data/image/png:
```

```
- iVBORw0K...<snip base64, md5=3f7d4e61ee33aaae...>  
+ iVBORw0K...<snip base64, md5=1d6960ad89e9de61...>
```



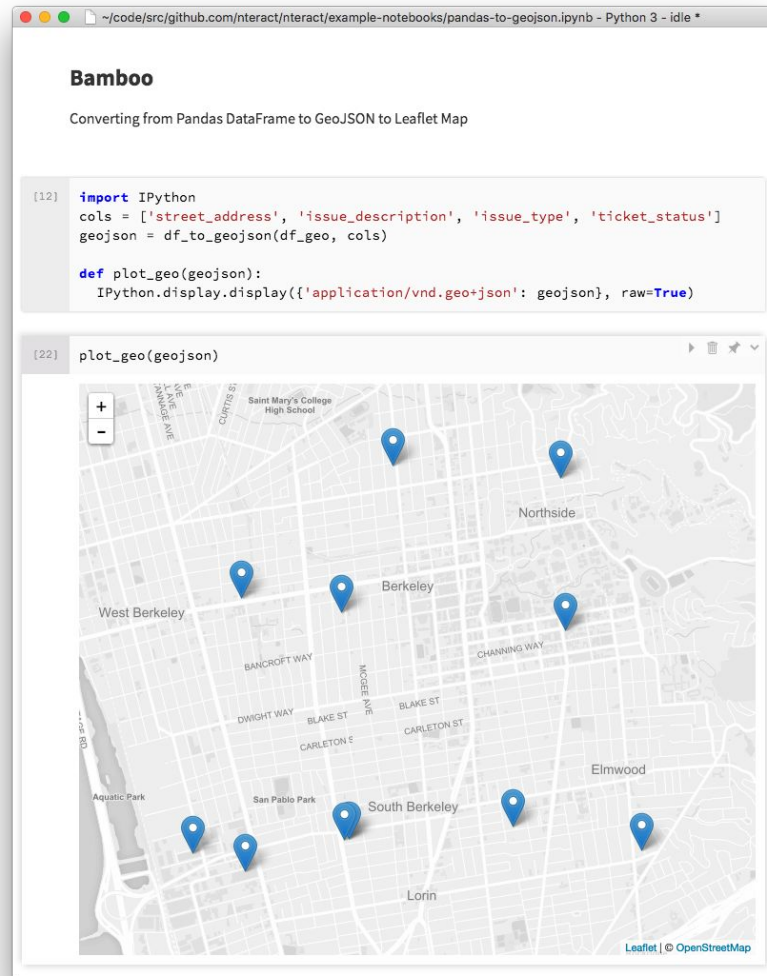
Thebe

Standalone Jupyter cells for static sites (Javascript Plugin)

- an easy way to let users on a web page run code examples on a server.

nteract

Native desktop app for Jupyter notebooks



Jupyter Widget Server

And much much more ...

This is a thriving ecosystem and there are new projects added every day!

Thanks

Contact Us:

Shreyas Cholia <scholia@lbl.gov>

Matt Henderson <mhenderson@lbl.gov>

Oliver Evans <oevans@lbl.gov>

<https://github.com/Jupyter-Kale/Jupyter-and-its-moons>