Use RMarkdown. . .

. . . when you want to weave together code (it doesn't have to be R!), and narrative (efficiently written in Markdown).

With Python

Let's demonstrate with the classic entrypoint to Python:

```
print('hello world')
```

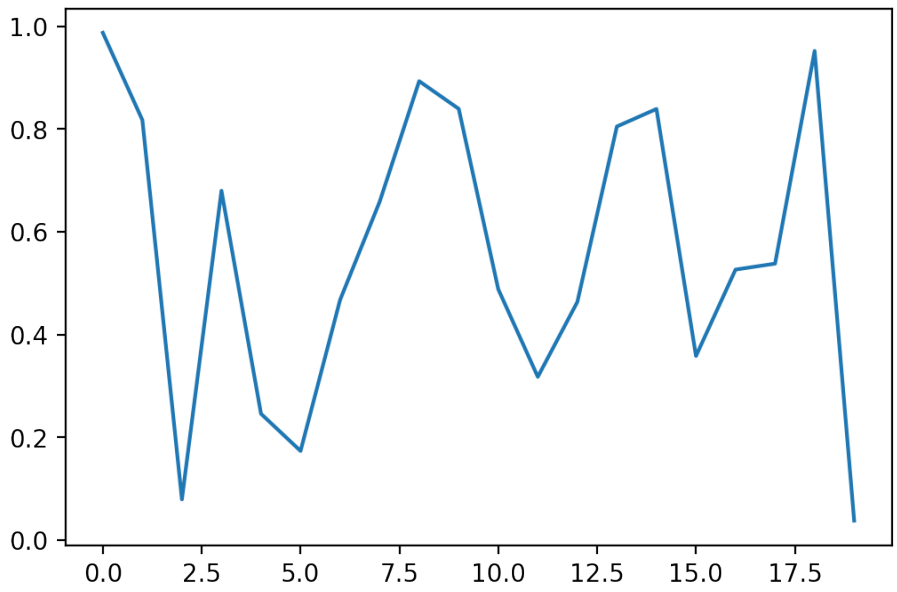
```
hello world
```

And now we'll do something a tiny bit more complicated: use numpy to generate an array of twenty random numbers, which we'll then use matplotlit to plot.

```
import numpy as np
import matplotlib.pyplot as plt

numbers = np.random.rand(20,1)

plt.plot(numbers)
plt.show()
```



Now let's add a citation (I'm using Zotero, with the BetterBibTex plugin, and citation keys in the format `[authForeIni][authEtAl][year]`, and then exporting the bibliography as `refs.bib`, which needs to be saved in our `bits`

folder) – maybe something about Jupyter notebooks (Kluyver et al. 2016) – and we can run our bash script to turn this into a publishable PDF...

```
# to run this from within the notebook, first comment out this line and save...
# ...and then uncomment the line to run it -- otherwise, Pweave will get stuck...
# ...in an infinite loop and be unable to finish processing the notebook
# ! ../bits/publi.sh RMarkdown
```

References

Kluyver, T.; Ragan-Kelley, B.; Pérez, F.; Granger, B.E.; Bussonnier, M.; Frederic, J.; et al. 2016. Jupyter Notebooks-a publishing format for reproducible computational workflows. *ELPUB*: 87–90.