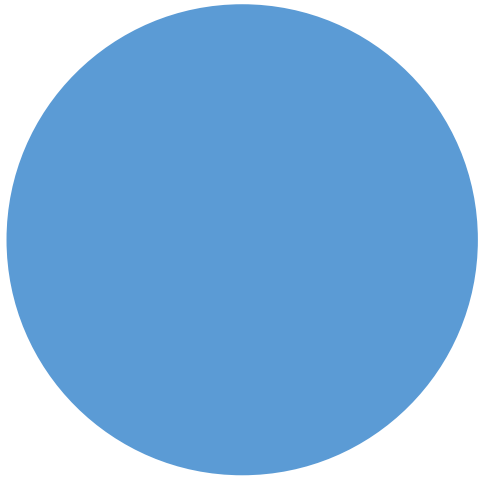
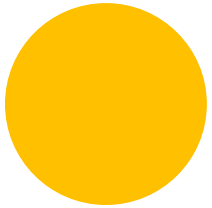



Getting Started with F# and Jupyter Notebooks

Luis Quintanilla

Hello

Luis Quintanilla

Content Developer @ Microsoft

GitHub:

lqdev

Blog:
http://luisquintanilla.me

Twitter:

@ljquintanilla

E-Mail:
lqdev@outlook.com

Code & Slides

http://bit.ly/SouthernFriedFSharp2019

Agenda

Development Experience

Development Environments

- REPL
- Fsharp.Formatting
- FsLab Journal

Jupyter

- Notebooks
- Ecosystem

F# and Jupyter Notebooks

- Local
- Hosted

What Do You Want Out of Your Development Experience?

Interactive

Reproducible

Documented

Collaborative

Extensible

Read-Evaluate-Print Loop (REPL)

Interactive

Reproducible?

Documented?

Collaborative?

FsLiterate

Interactive?

Reproducible

Documented

Collaborative?

Extensible

Demo Fsharp.Formatting

FsLab Journal

Interactive

Reproducible

Documented

Extensible

Collaborative?

Demo FsLab Journal

Jupyter

Open Source Interactive Computing Environment

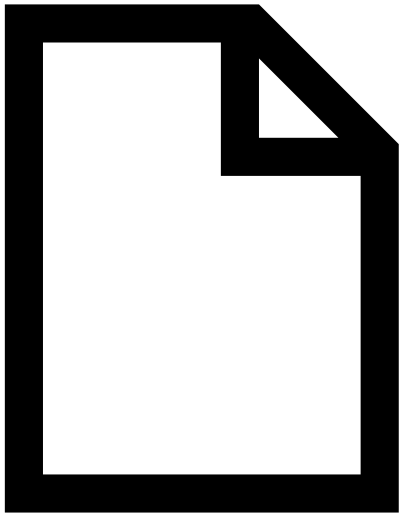
Over 40 languages

Notebooks – Single User

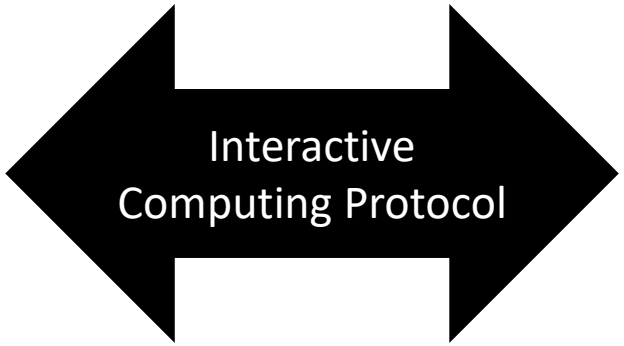
Hub – Multiple Users

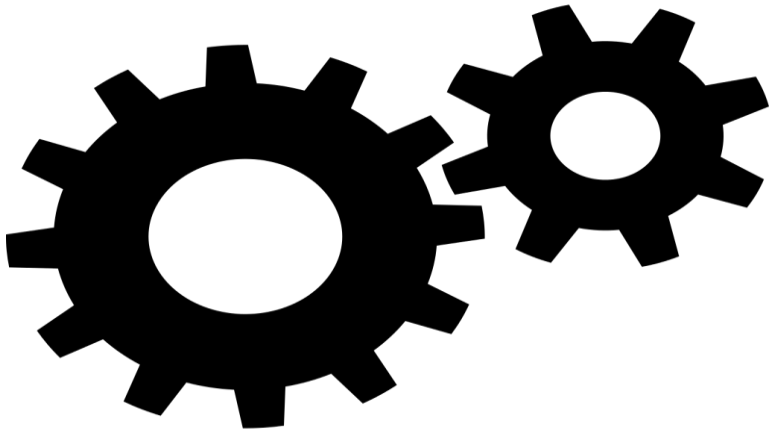
Demo Jupyter Notebooks

Jupyter Notebooks Internals



Notebook Document Format



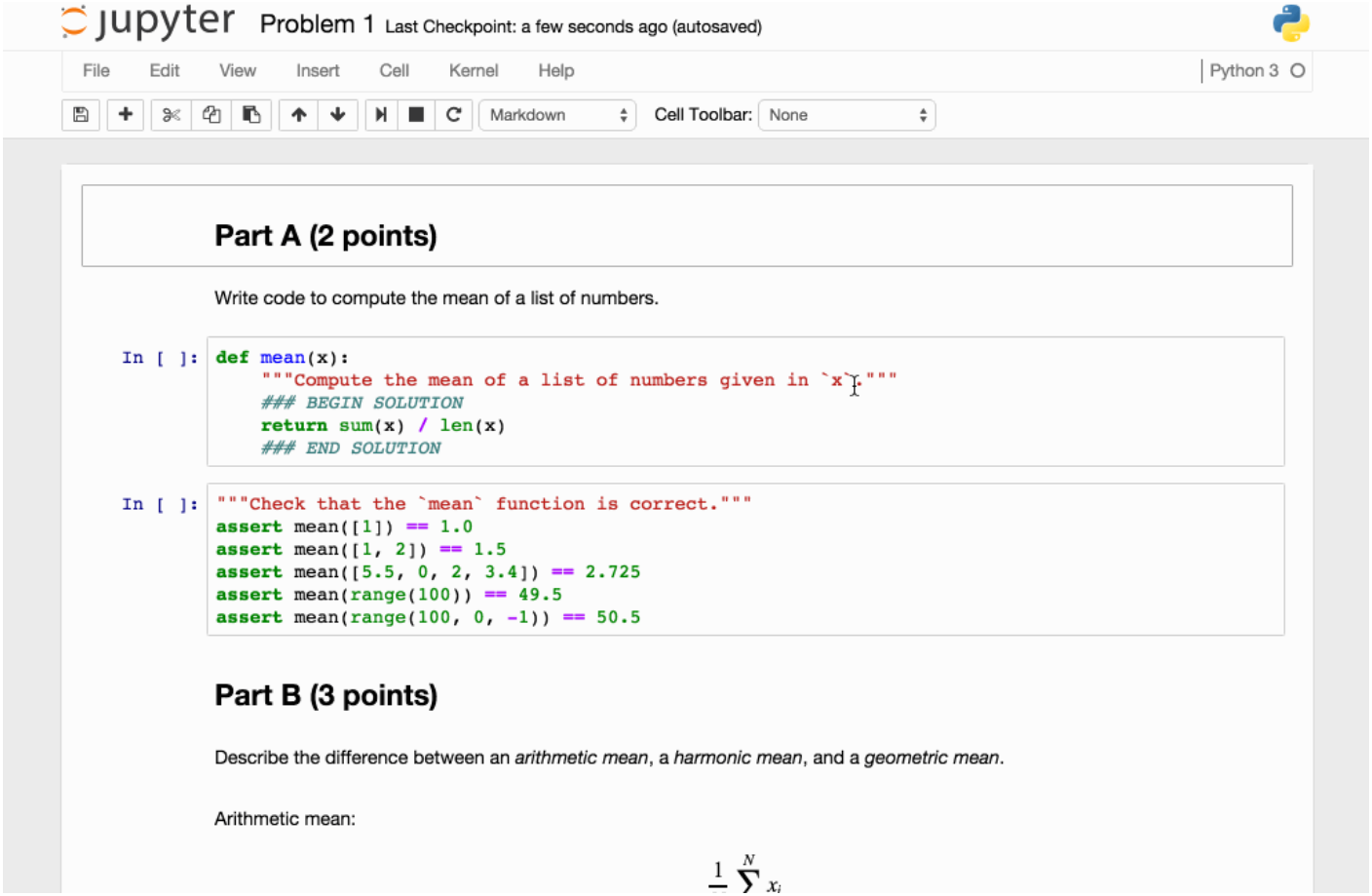


Kernel

- Extensions
  - NBGrader
  - Nteract
  - Many more…

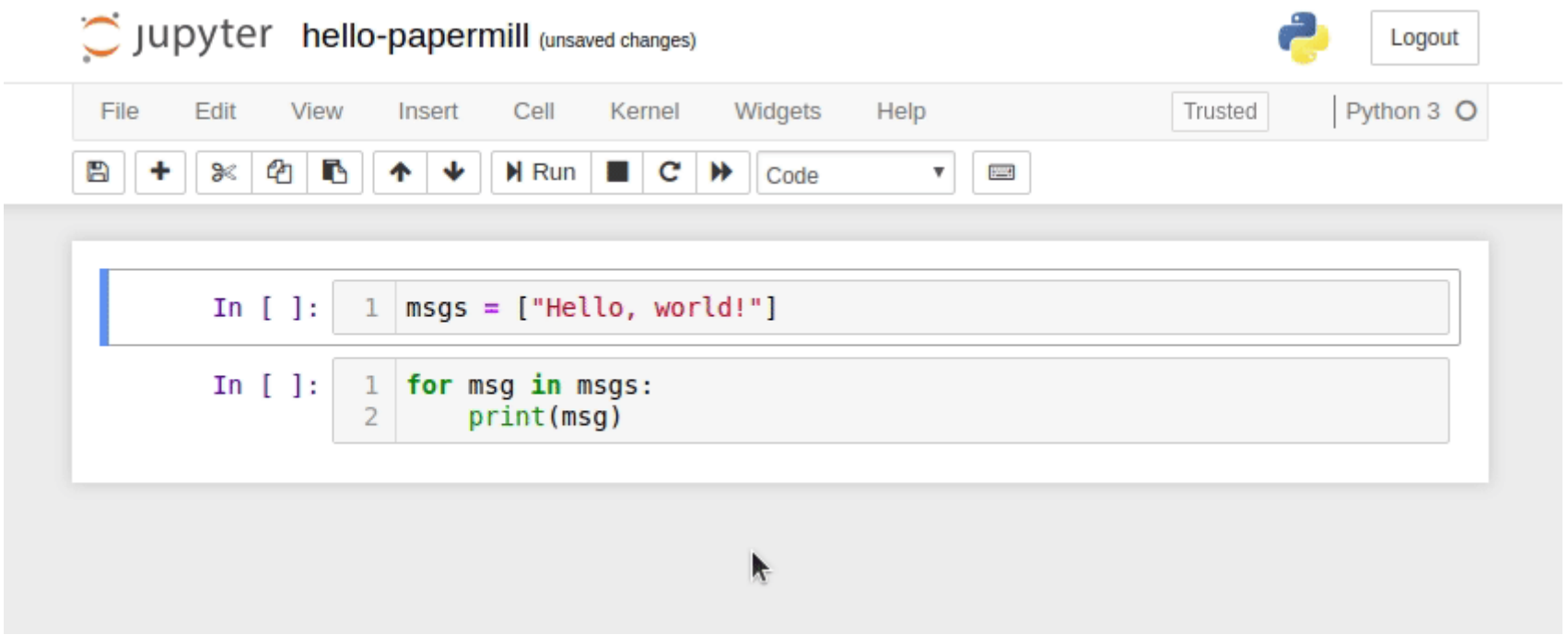
Jupyter Ecosystem

NBGrader



Source: https://github.com/jupyter/nbgrader

Papermill




```
$ papermill local/input.ipynb s3://bkt/output.ipynb -p alpha 0.6 -p l1_ratio 0.1
```

Source: https://github.com/jupyter/nbgrader

Jupyter Notebooks F#

F# 4.1

Jupyter 5.7.7

Cross-Platform

Local – IFSharp

Hosted – Azure Notebooks

Demo IFSharp

Demo Azure Notebooks

Questions

Resources

- http://fsprojects.github.io/FSharp.Formatting/literate.html
- https://fslab.org/download/
- https://jupyter.org/
- https://github.com/fsprojects/IfSharp
- https://github.com/jupyter/nbgrader
- https://github.com/nteract/papermill
- https://notebooks.azure.com/lqdev/projects/southernfriedfsharp2019