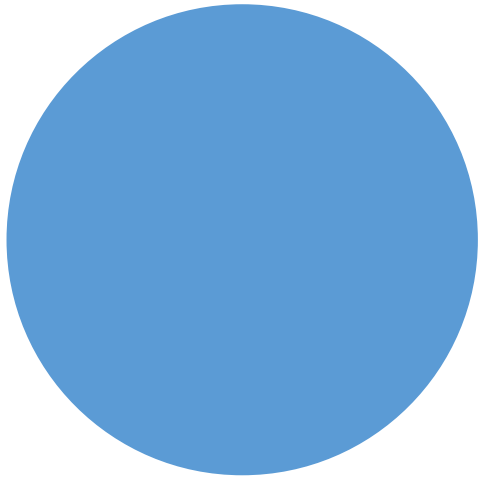
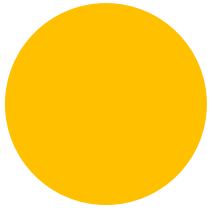

.NET Interactive for Demos & Teaching

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@ljquintanilla

Hello

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Code & Slides

http://bit.ly/netconfarmenia2021

Agenda

Development Experience

Development Environments

- REPL
- Code Projects

Jupyter

- Notebooks
- Ecosystem

.NET Interactive

- 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?

Extensible?

Demo Code Projects

Code Projects

Interactive?

Reproducible

Documented

Collaborative?

Extensible

Jupyter

Open Source Interactive Computing Environment

Over 40 languages

Notebooks

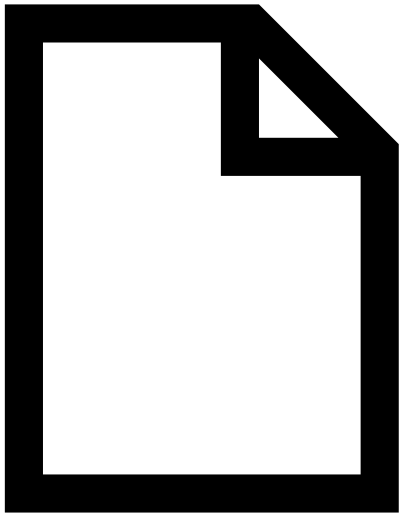
Hub

- Anaconda
  - Data Science Platform
    - Package Management
    - Tooling
    - IDE

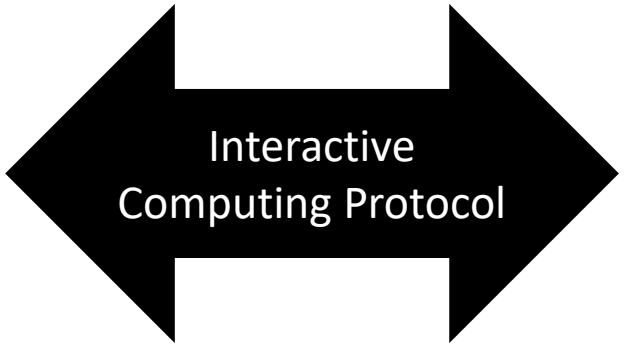
Getting Started Jupyter Notebooks

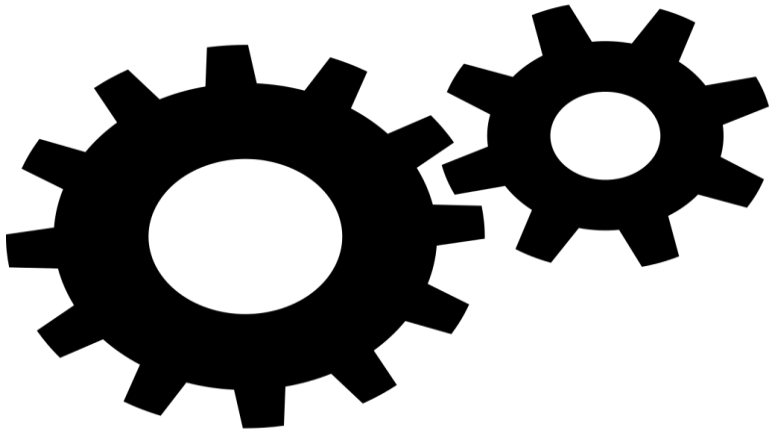
Demo Jupyter Notebooks

Jupyter Notebooks Internals



Notebook Document Format



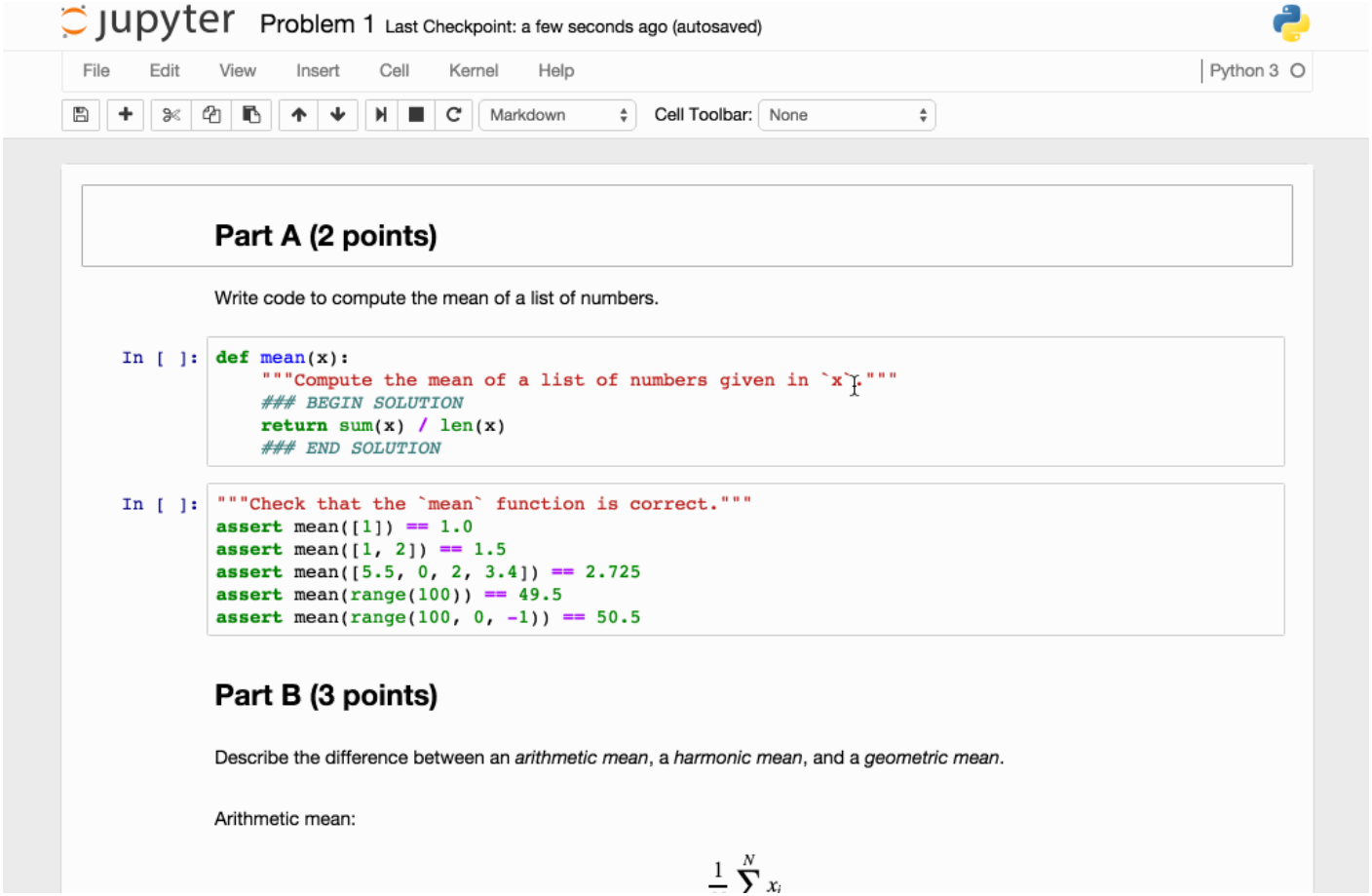


Kernel

- Extensions
  - NBGrader
  - Nteract
  - Many more…

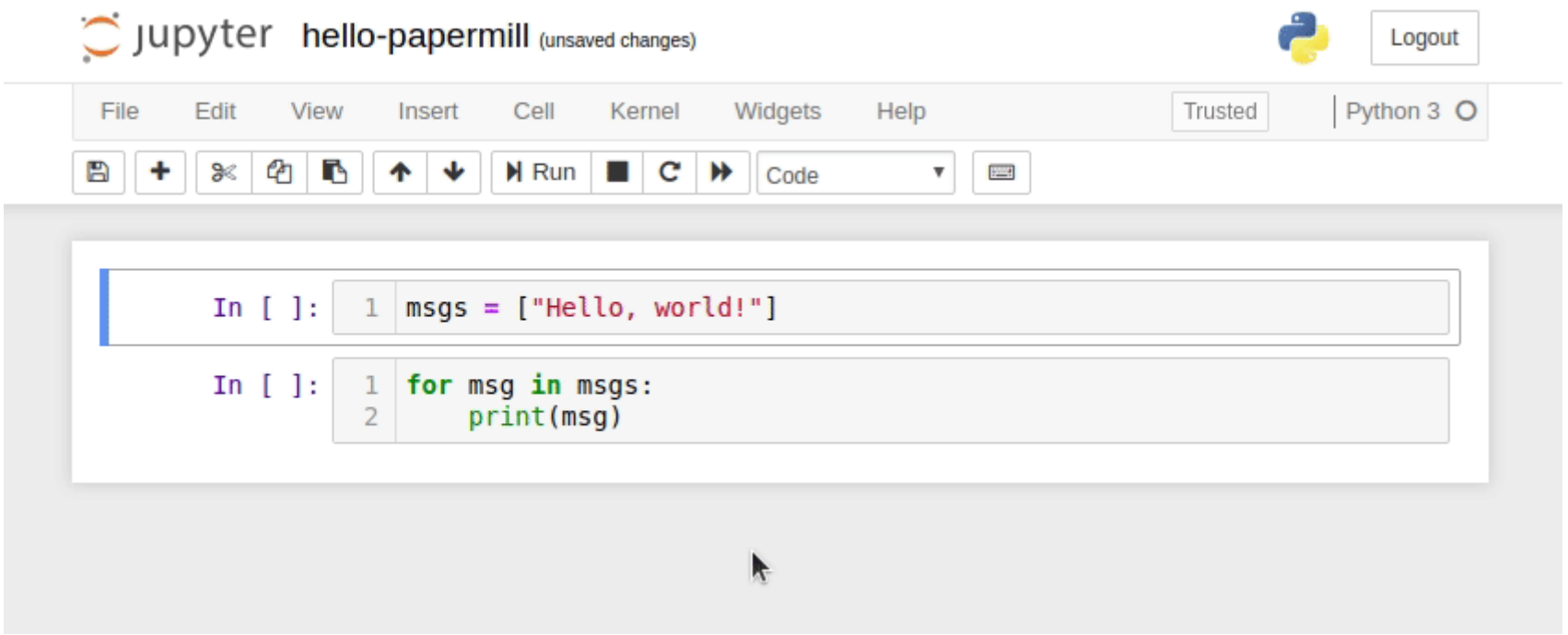
Jupyter Ecosystem

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/nteract/papermill

Jupyter

Interactive

Reproducible

Documented

Collaborative

Extensible

.NET Interactive

.NET 5.0

Jupyter

Cross-Platform

Local – .NET Interactive

Hosted

Demo .NET Interactive

Takeaways

Interactive environments enable rapid development

Jupyter Notebooks make prototyping, documentation and learning easy

Jupyter Notebooks open standards make it easy to extend the tool

.NET Interactive makes it easy to use Jupyter Notebooks with .NET

Questions

Resources

- https://jupyter.org/
- https://github.com/dotnet/interactive