# Chapter 5: Jupyter Notebooks

Objectives:

* Understand iPython development patterns
* Get an overview of Jupyter Notebooks
* Review where Jupyter Notebooks exist in the ArcGIS ecosystem
* Build a Notebook effectively showcasing the results of an analytical exercise

Introduction

* Discuss iPython and interactive python development
  + What is iPython
  + Interactive terminals
  + Special properties
    - Display
    - Magic
* Introduce Jupyter Notebooks
  + Open source
  + Not just python
  + Interactive
  + Widgets

Exercise 1

* Open up Jupyter Notebook from the command line
  + Open up python command prompt
  + Navigate to a folder
  + Start jupyter notebooks
* Write some code
  + Explore interactivity
  + Use a widget

Discussion on Other Notebook environments

* Jupyter Notebooks in ArcGIS
  + ArcGIS Pro
  + ArcGIS Online Notebooks
  + Notebook Server
  + Map widget

Exercise 2

* Create a new notebook
* Pull some data
* Add the map widget
* Render data and interact