IS4303 Week 2

Anaconda and Python

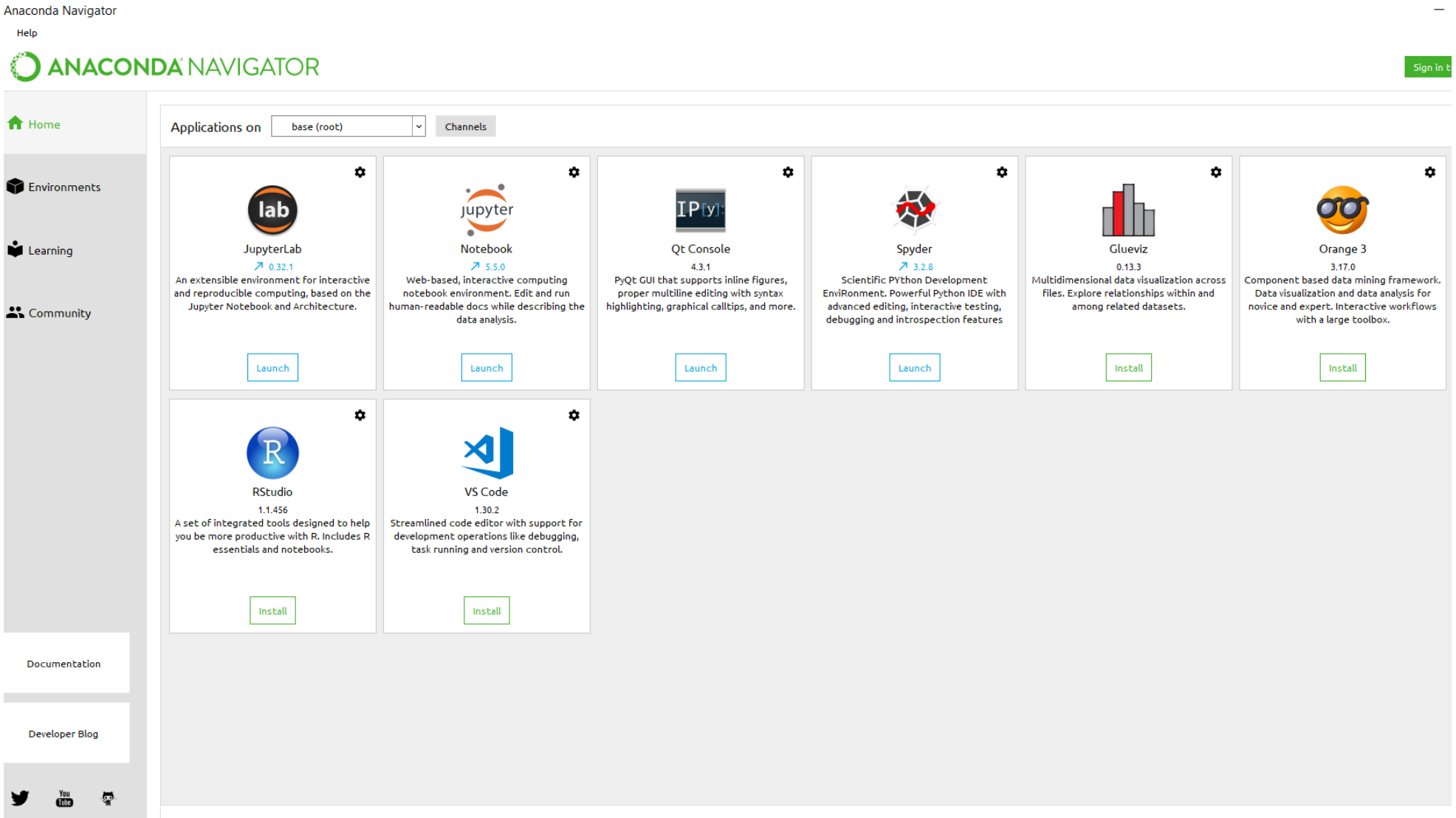
Agenda

- Install Anaconda
- Install Python Packages in Anaconda
- Jupyter Notebook

Anaconda

- The Most Popular Python Data Science Platform
- Install Anaconda from
  - https://www.anaconda.com/download/
- Select the version that matches your operation system
- Get Started with Anaconda:
  - http://docs.anaconda.com/anaconda/user-guide/getting-started/
  - https://conda.io/docs/user-guide/tasks/manage-environments.html

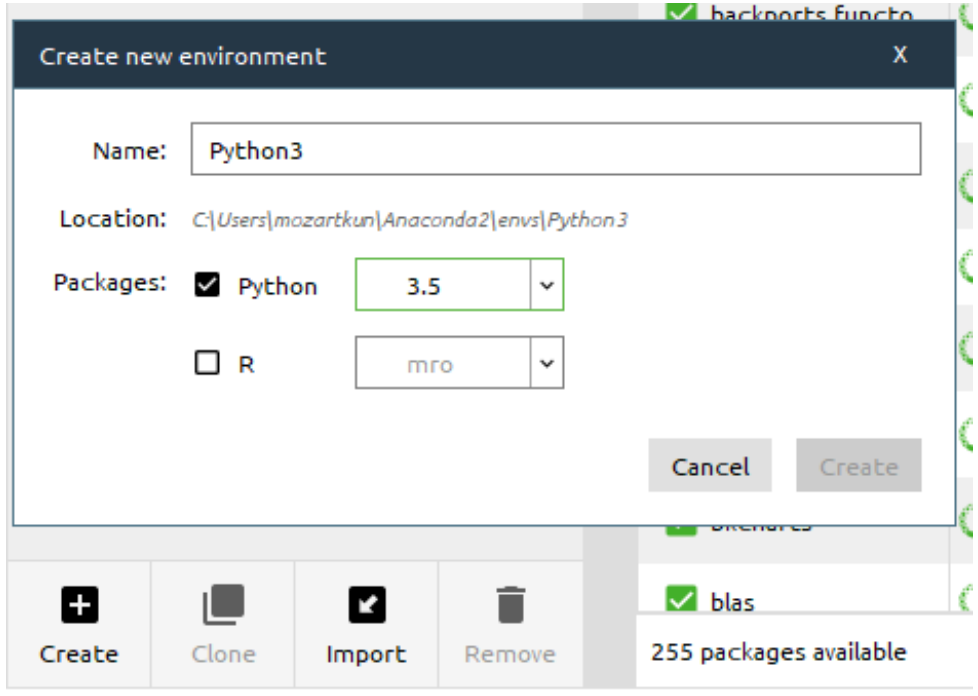
Anaconda


Anaconda Navigator
Help
ANACONDA NAVIGATOR
Sign in t
Home
Environments
Learning
Community
Documentation
Developer Blog
Applications on
base (root)
Channels
JupyterLab
0.32.1
An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture.
Launch
Notebook
5.5.0
Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis.
Launch
Qt Console
4.3.1
PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more.
Launch
Spyder
3.2.8
Scientific PYthon Development EnviRonment. Powerful Python IDE with advanced editing, interactive testing, debugging and introspection features
Launch
Glueviz
0.13.3
Multidimensional data visualization across files. Explore relationships within and among related datasets.
Install
Orange 3
3.17.0
Component based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox.
Install
RStudio
1.1.456
A set of integrated tools designed to help you be more productive with R. Includes R essentials and notebooks.
Install
VS Code
1.30.2
Streamlined code editor with support for development operations like debugging, task running and version control.
Install

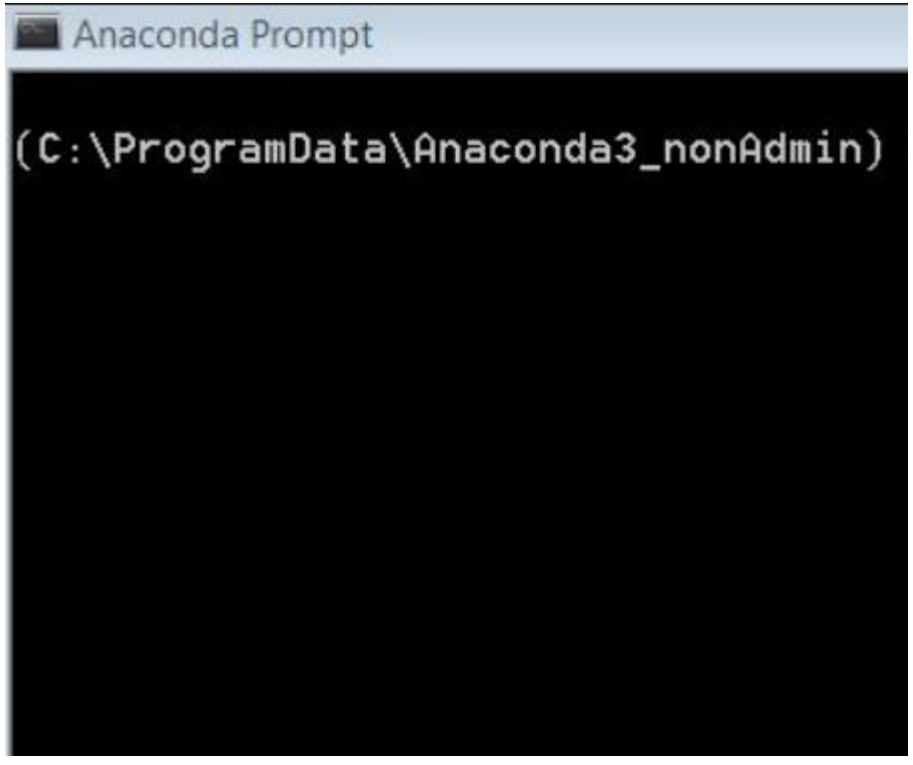
Anaconda

- Suppose you want to create a virtual environment named “Python3” with Python version 3.5

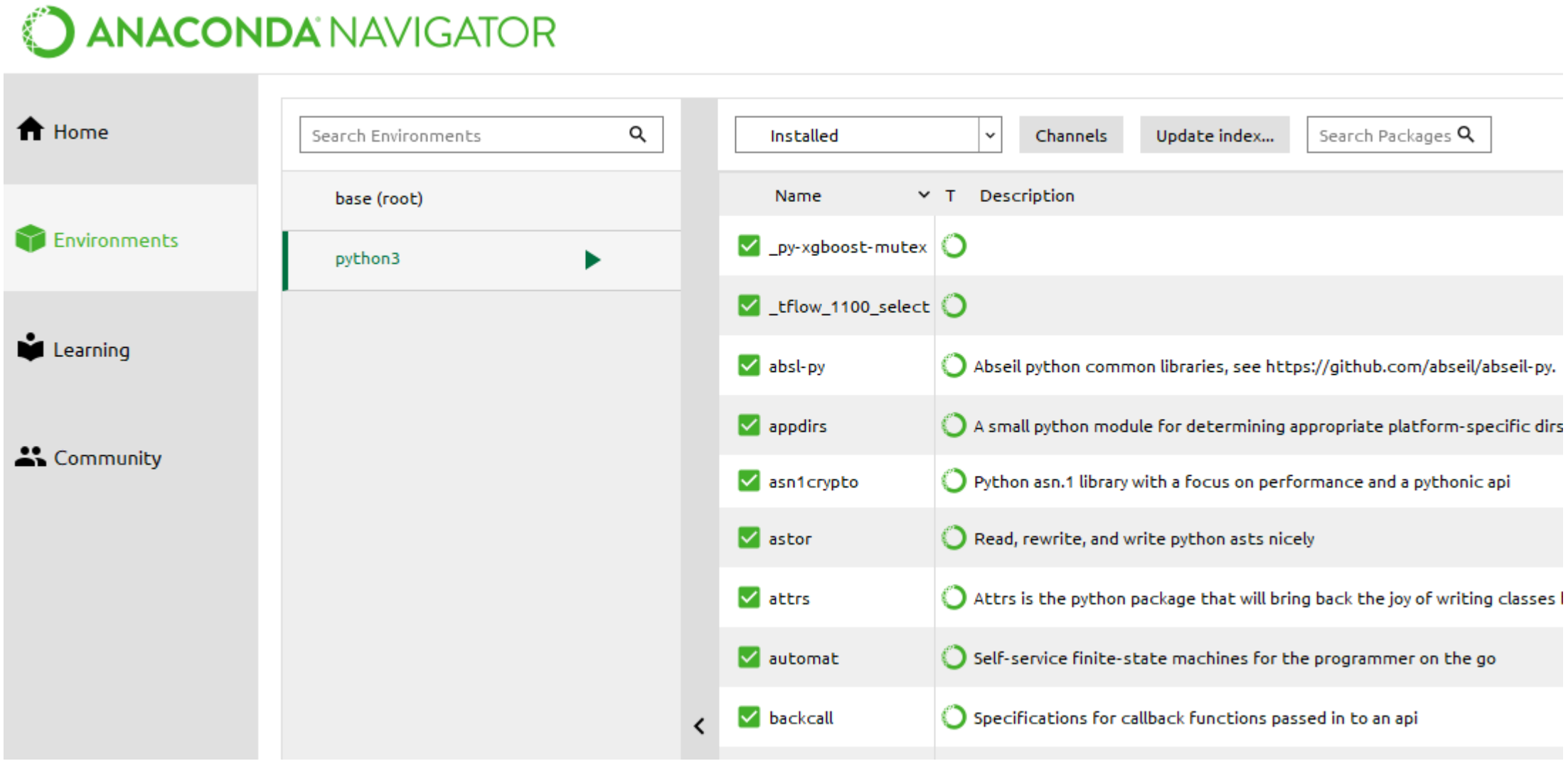
- Open Anaconda Navigator
- Environments -> Create -> ……



- Open Anaconda Prompt
- Type “conda create –n Python3 python=3.5”



Install Python Packages



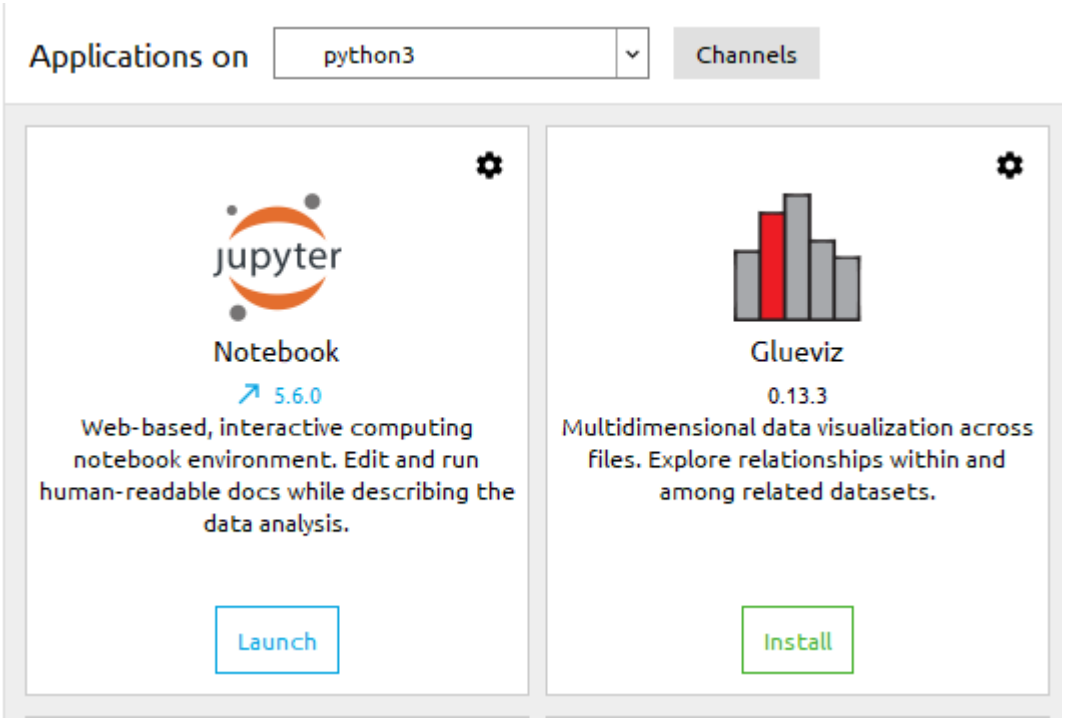
Install Python Packages

- In the Anaconda Prompt, Type:
  - “pip install ***” OR
  - “conda install ***”

- References:
  - https://conda.io/docs/user-guide/tasks/manage-environments.html#using-pip-in-an-environment
  - https://conda.io/docs/user-guide/tasks/manage-python.html

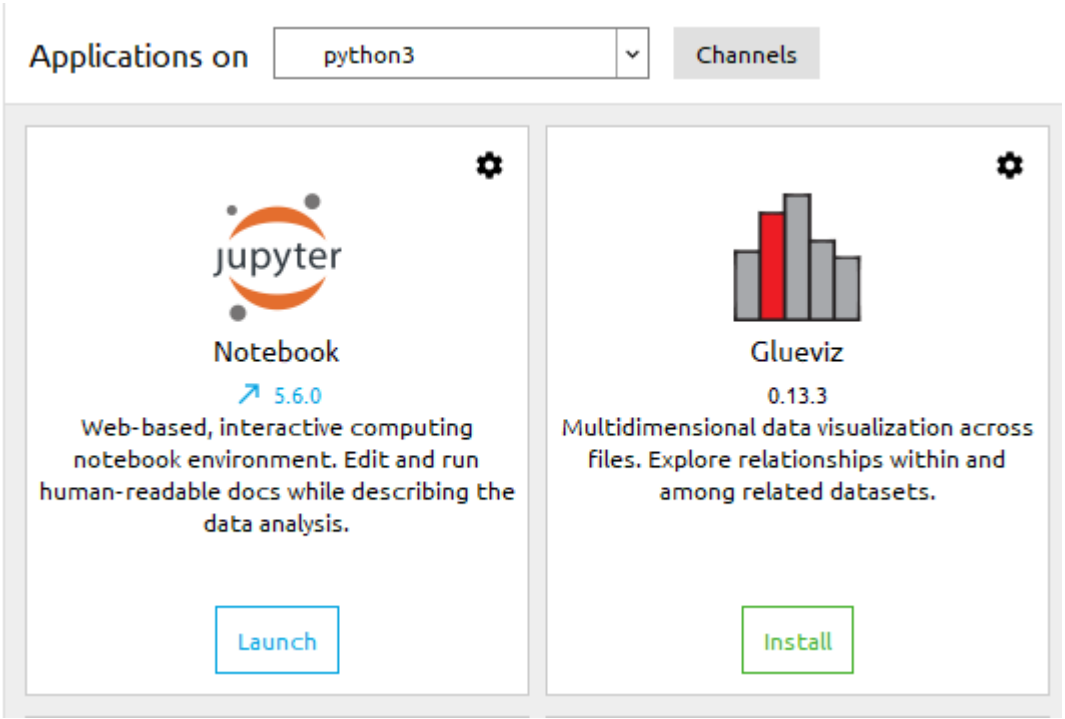
Jupyter Notebook

- First, you have to install “Jupyter notebook” in the environment your have created:

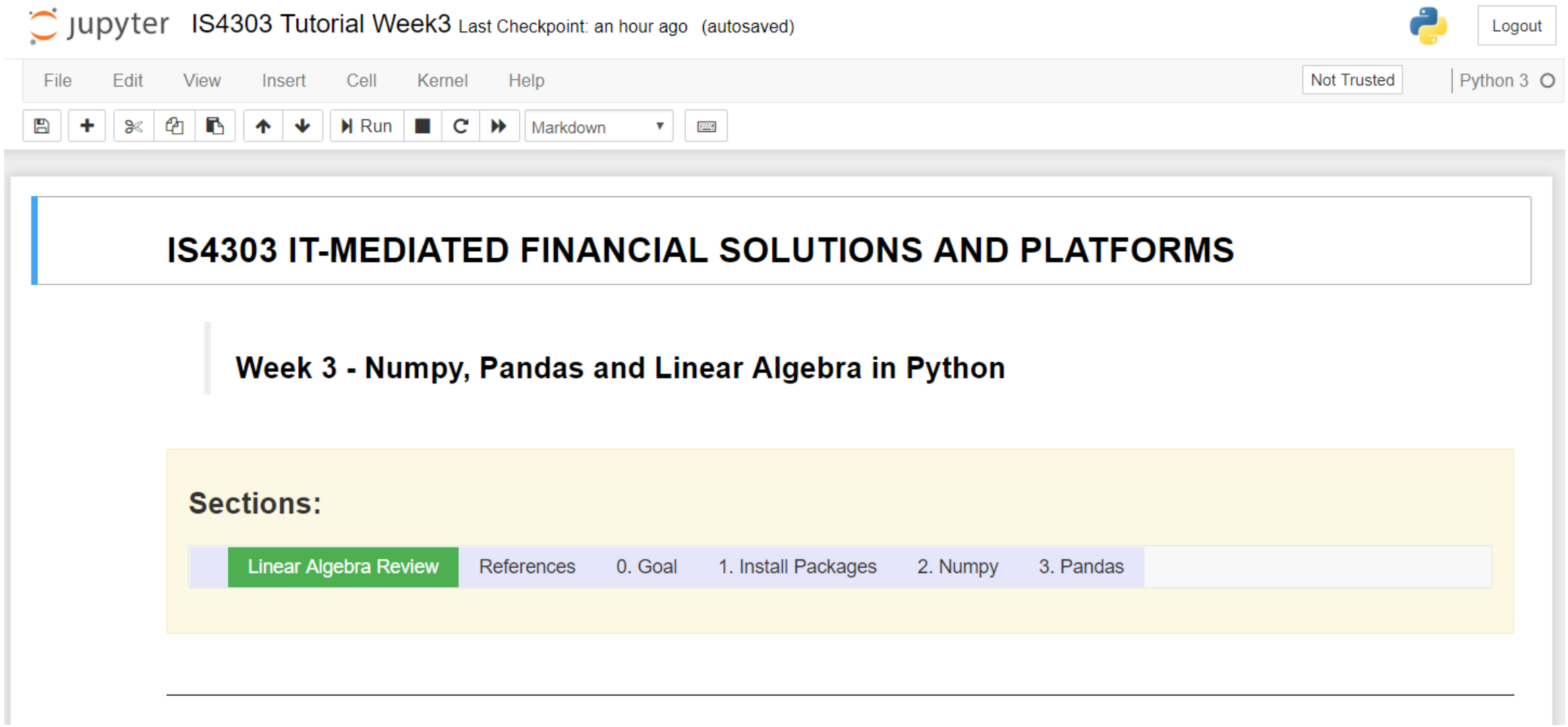


Jupyter Notebook

- Once finished, click “Launch” and you will open Jupyter notebook



Jupyter Notebook



How To Use Jupyter Notebook

- References:
  - https://media.readthedocs.org/pdf/jupyter-notebook/latest/jupyter-notebook.pdf
  - https://youtu.be/jZ952vChhuI

Thank you!