

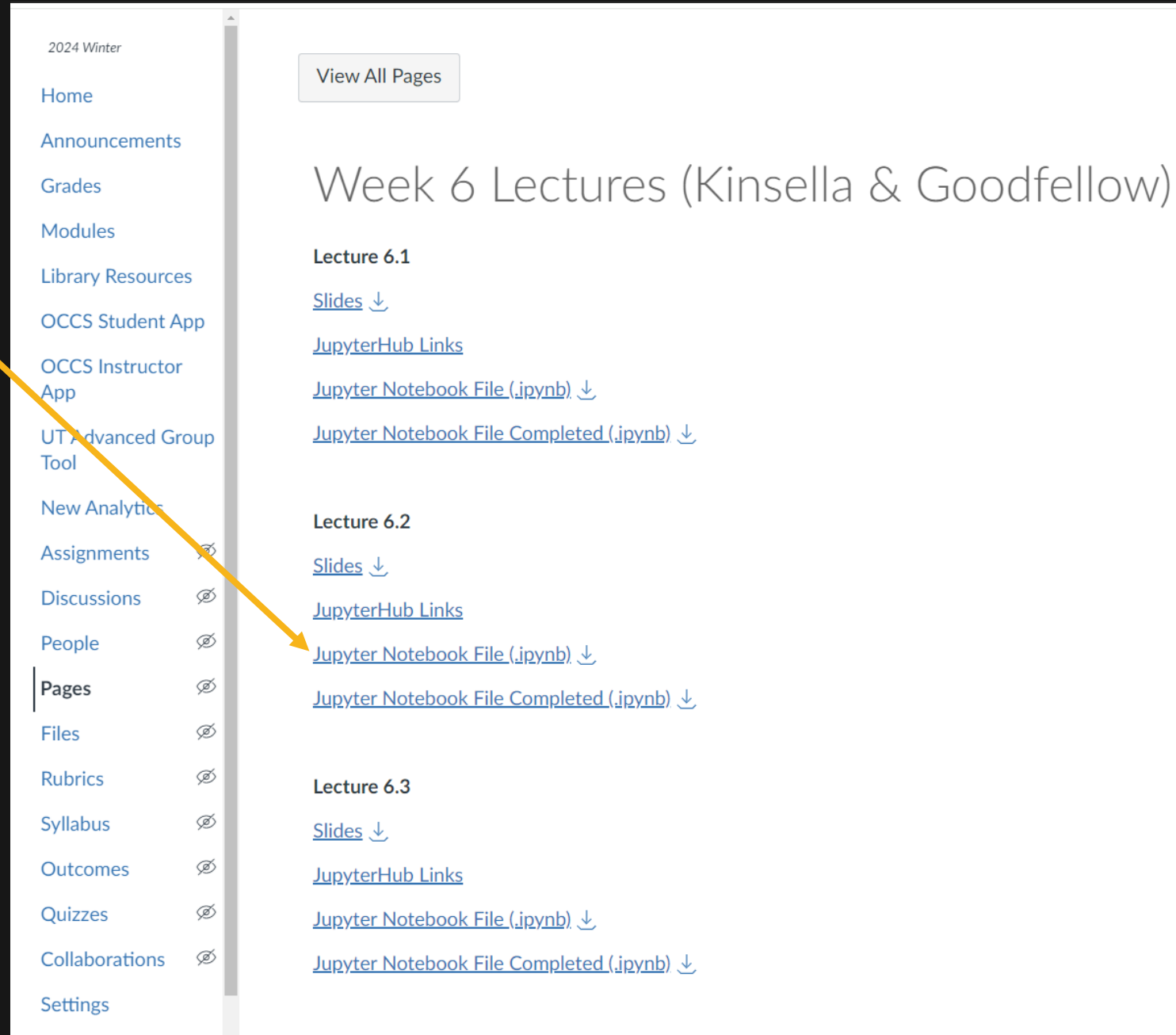
APS106

Turtle setup.

if nothing else, write **#cleancode**.

Download Notebook

- Download lecture 6.2 notebook.
- **week6_lecture2_starter.ipynb**



2024 Winter

View All Pages

Week 6 Lectures (Kinsella & Goodfellow)

Lecture 6.1

[Slides](#) ↓

[JupyterHub Links](#)

[Jupyter Notebook File \(.ipynb\)](#) ↓

[Jupyter Notebook File Completed \(.ipynb\)](#) ↓

Lecture 6.2

[Slides](#) ↓

[JupyterHub Links](#)

[Jupyter Notebook File \(.ipynb\)](#) ↓

[Jupyter Notebook File Completed \(.ipynb\)](#) ↓

Lecture 6.3

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[JupyterHub Links](#)

[Jupyter Notebook File \(.ipynb\)](#) ↓

[Jupyter Notebook File Completed \(.ipynb\)](#) ↓

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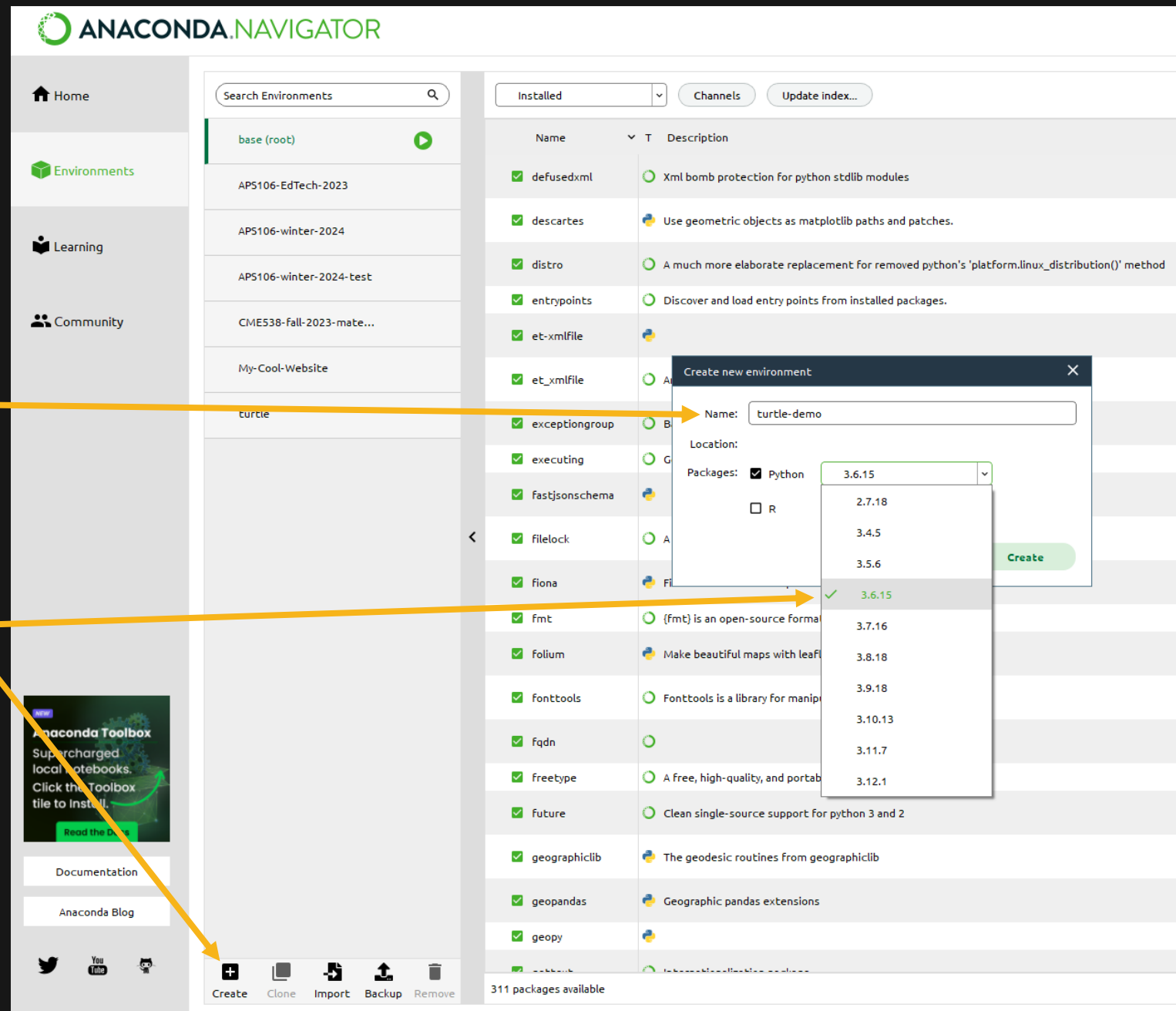
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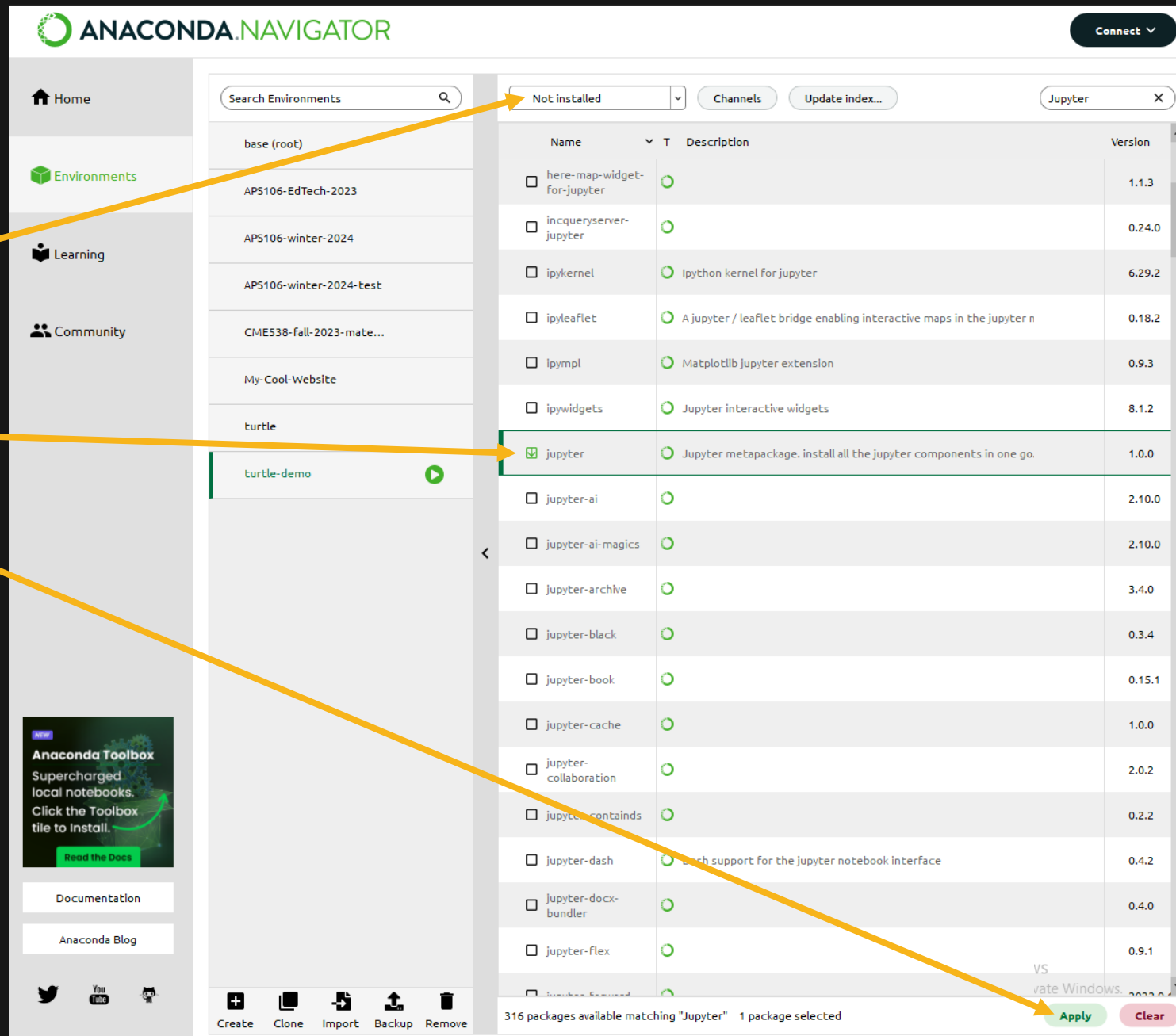
Create New Environment

- Create an environment.
- Choose a name you'll remember.
- Make sure you use Python version 3.6.
 - In my case, I have the option to install 3.6.15. Any 3.6 version will work.



Install Jupyter

- See packages that are not installed yet.
- Choose Jupyter.
- Click Apply (Install).

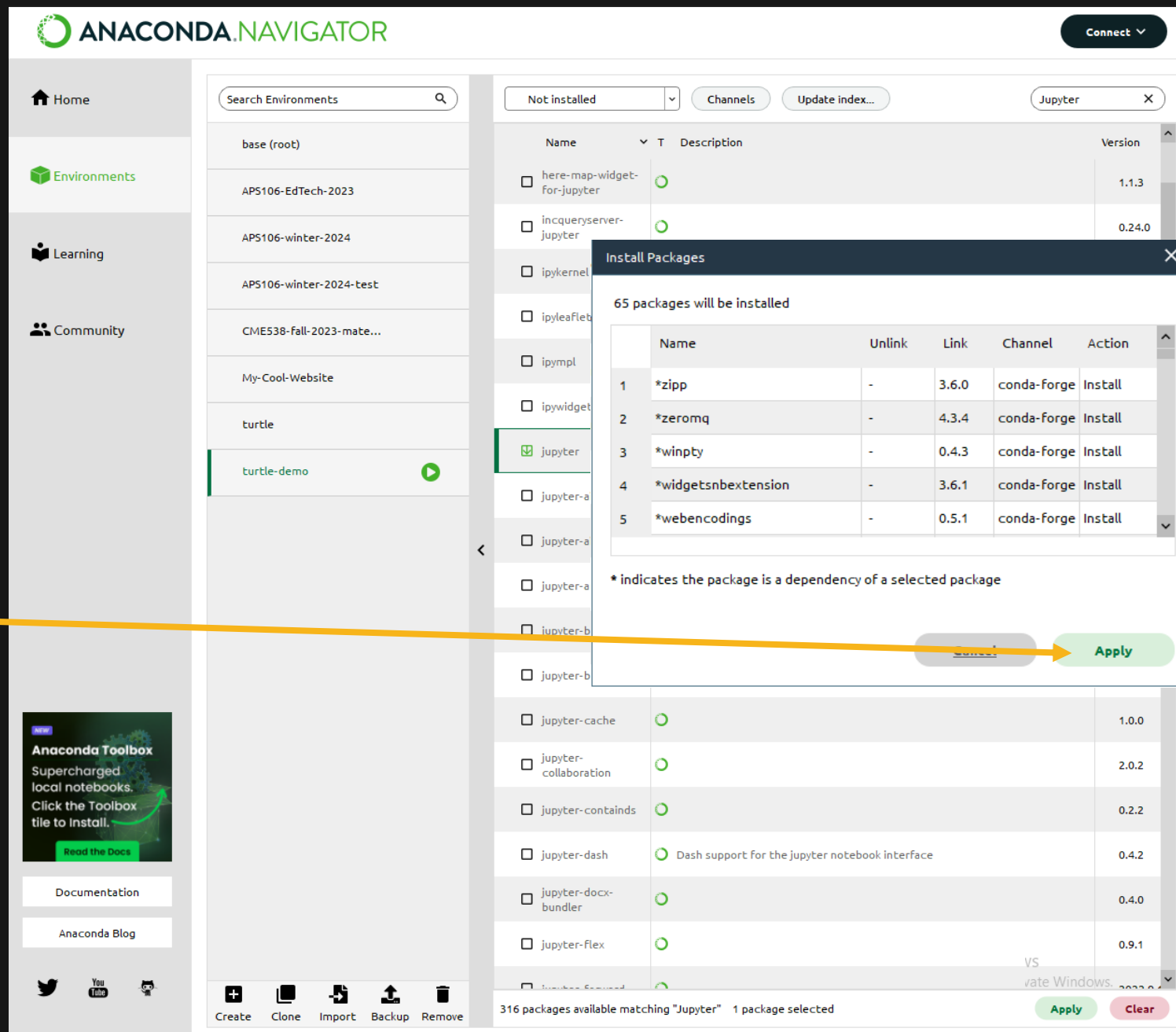


The screenshot shows the Anaconda Navigator interface. The left sidebar contains navigation links: Home, Environments, Learning, and Community. The main panel displays a list of environments. The right panel shows a search for 'Jupyter' packages, with a filter set to 'Not installed'. The 'Jupyter' package is selected. The bottom of the interface shows a status bar indicating '316 packages available matching "Jupyter" 1 package selected' and buttons for 'Apply' and 'Clear'.

Name	Description	Version
here-map-widget-for-jupyter		1.1.3
incqueryserver-jupyter		0.24.0
ipykernel	ipython kernel for jupyter	6.29.2
ipyleaflet	A jupyter / leaflet bridge enabling interactive maps in the jupyter n	0.18.2
ipympl	Matplotlib jupyter extension	0.9.3
ipywidgets	Jupyter interactive widgets	8.1.2
<input checked="" type="checkbox"/> jupyter	Jupyter metapackage, install all the jupyter components in one go.	1.0.0
jupyter-ai		2.10.0
jupyter-ai-magics		2.10.0
jupyter-archive		3.4.0
jupyter-black		0.3.4
jupyter-book		0.15.1
jupyter-cache		1.0.0
jupyter-collaboration		2.0.2
jupyter-contains		0.2.2
jupyter-dash	dash support for the jupyter notebook interface	0.4.2
jupyter-docx-bundler		0.4.0
jupyter-flex		0.9.1

Install Jupyter

- This will pop up a window where Anaconda tells you what packages will be installed.
- Click Apply (Install).



The screenshot shows the Anaconda Navigator interface. On the left, the 'Environments' tab is active, displaying a list of environments. The 'turtle-demo' environment is selected. A modal window titled 'Install Packages' is open, showing a list of 65 packages to be installed. The modal includes a table with columns: Name, Unlink, Link, Channel, and Action. The first five packages listed are *zipp, *zeromq, *winpty, *widgetsnbextension, and *webencodings. Below the table, it states '* indicates the package is a dependency of a selected package'. At the bottom of the modal, there is an 'Apply' button. An orange arrow points from this 'Apply' button to the 'Apply (Install)' button in the bottom right corner of the Anaconda Navigator interface.

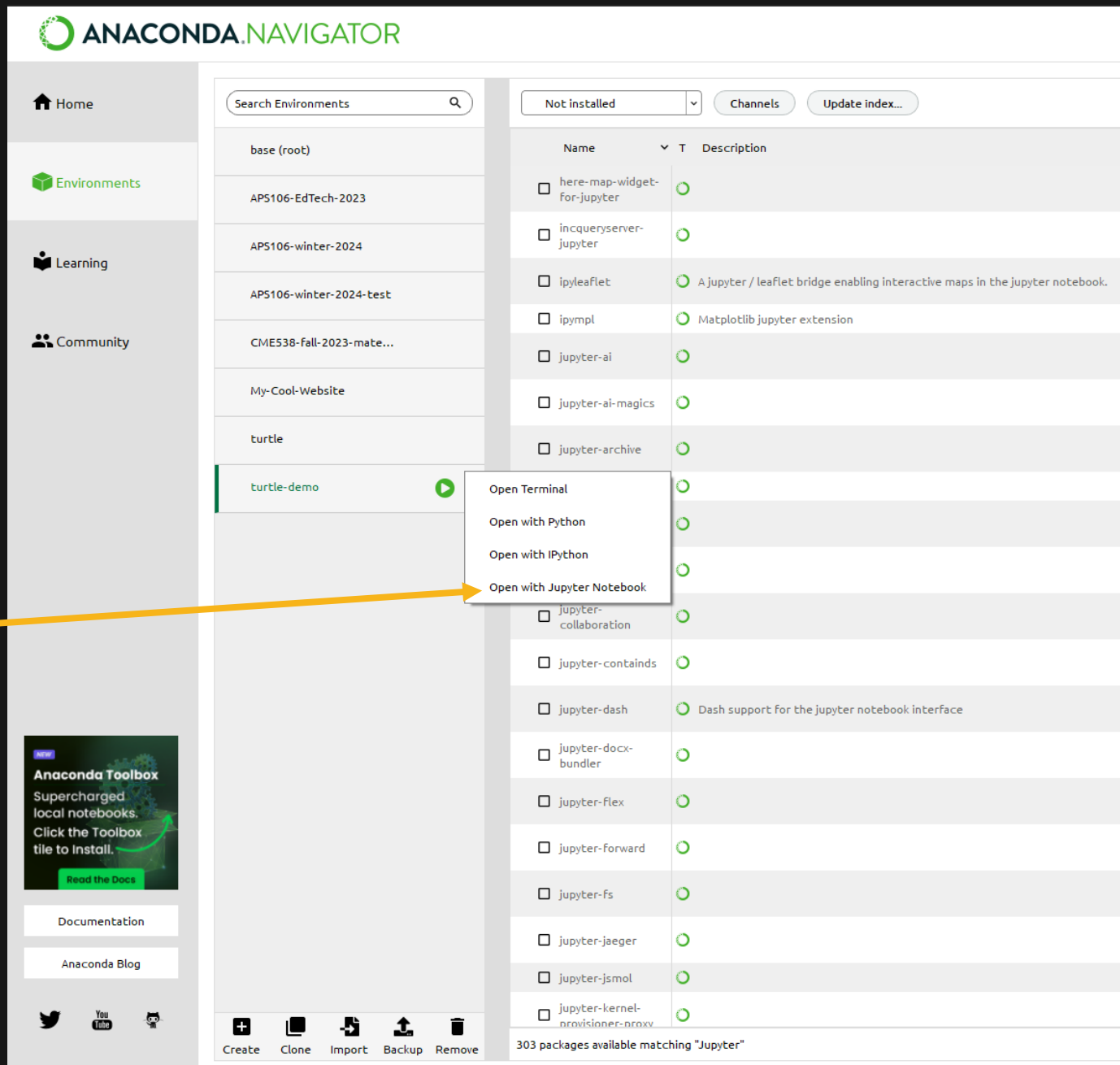
	Name	Unlink	Link	Channel	Action
1	*zipp	-	3.6.0	conda-forge	Install
2	*zeromq	-	4.3.4	conda-forge	Install
3	*winpty	-	0.4.3	conda-forge	Install
4	*widgetsnbextension	-	3.6.1	conda-forge	Install
5	*webencodings	-	0.5.1	conda-forge	Install

* indicates the package is a dependency of a selected package

316 packages available matching "Jupyter" 1 package selected

Launch Jupyter

- Click the play button for the new environment you created.
- Click "Open with Jupyter Notebook".



ANACONDA.NAVIGATOR

Home

Environments

Learning

Community

Search Environments

base (root)

APS106-EdTech-2023

APS106-winter-2024

APS106-winter-2024-test

CME538-fall-2023-mate...

My-Cool-Website

turtle

turtle-demo

Open Terminal

Open with Python

Open with IPython

Open with Jupyter Notebook

here-map-widget-for-jupyter

incqueryserver-jupyter

ipyleaflet

ipyml

jupyter-ai

jupyter-ai-magics

jupyter-archive

jupyter-collaboration

jupyter-containds

jupyter-dash

jupyter-docx-bundler

jupyter-flex

jupyter-forward

jupyter-fs

jupyter-jaeger

jupyter-jsmol

jupyter-kernel-provisioner-proxy

303 packages available matching "Jupyter"

Open Lecture Notebook

- Click on the Downloads folder.

[Files](#)[Running](#)[Clusters](#)
















Select items to perform actions on them.

☐ 0 ▾  /☐  3D Objects☐  anaconda3☐  Contacts☐  Creative Cloud Files☐  Desktop☐  Documents☐  Downloads☐  Dropbox☐  Favorites☐  Links☐  Music

Open Lecture Notebook

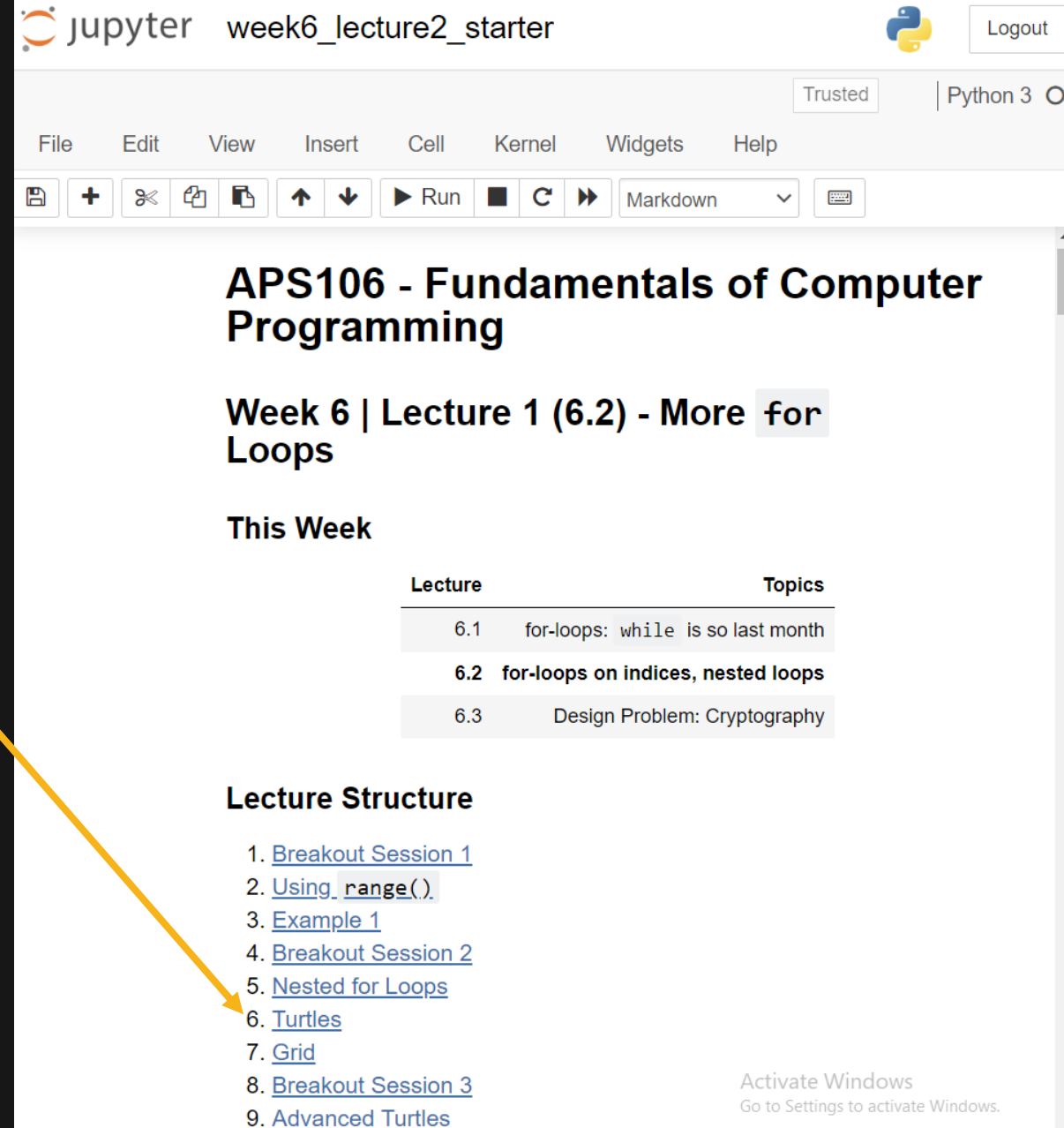
- Click on the Week 6 Lecture 2 notebook you downloaded.



- ☐  Untitled.ipynb
- ☐  week10_lecture1_starter.ipynb
- ☐  Week10_Review_Ender.ipynb
- ☐  week1_lectue3.ipynb
- ☐  week3_lecture3_complete.ipynb
- ☐  week3_lecture3_starter.ipynb
- ☐  week4_lecture2_starter.ipynb
- ☐  week4_lecture3.ipynb
- ☐  Week6_Design_Problem-Wordle.ipynb
- ☐  week6_lecture2_starter.ipynb
- ☐  Week8_Design.ipynb
- ☐  Week8_Lec1.ipynb
- ☐  Week8_Lec2.ipynb
- ☐  week8_lecture1 (1).ipynb
- ☐  week8_lecture1.ipynb

Go To Turtles Section

- Click the Turtles link.



jupyter week6_lecture2_starter Trusted Python 3

File Edit View Insert Cell Kernel Widgets Help

Save + Copy Paste Undo Redo Run Stop Restart Markdown

APS106 - Fundamentals of Computer Programming

Week 6 | Lecture 1 (6.2) - More for Loops

This Week

Lecture	Topics
6.1	for-loops: while is so last month
6.2	for-loops on indices, nested loops
6.3	Design Problem: Cryptography

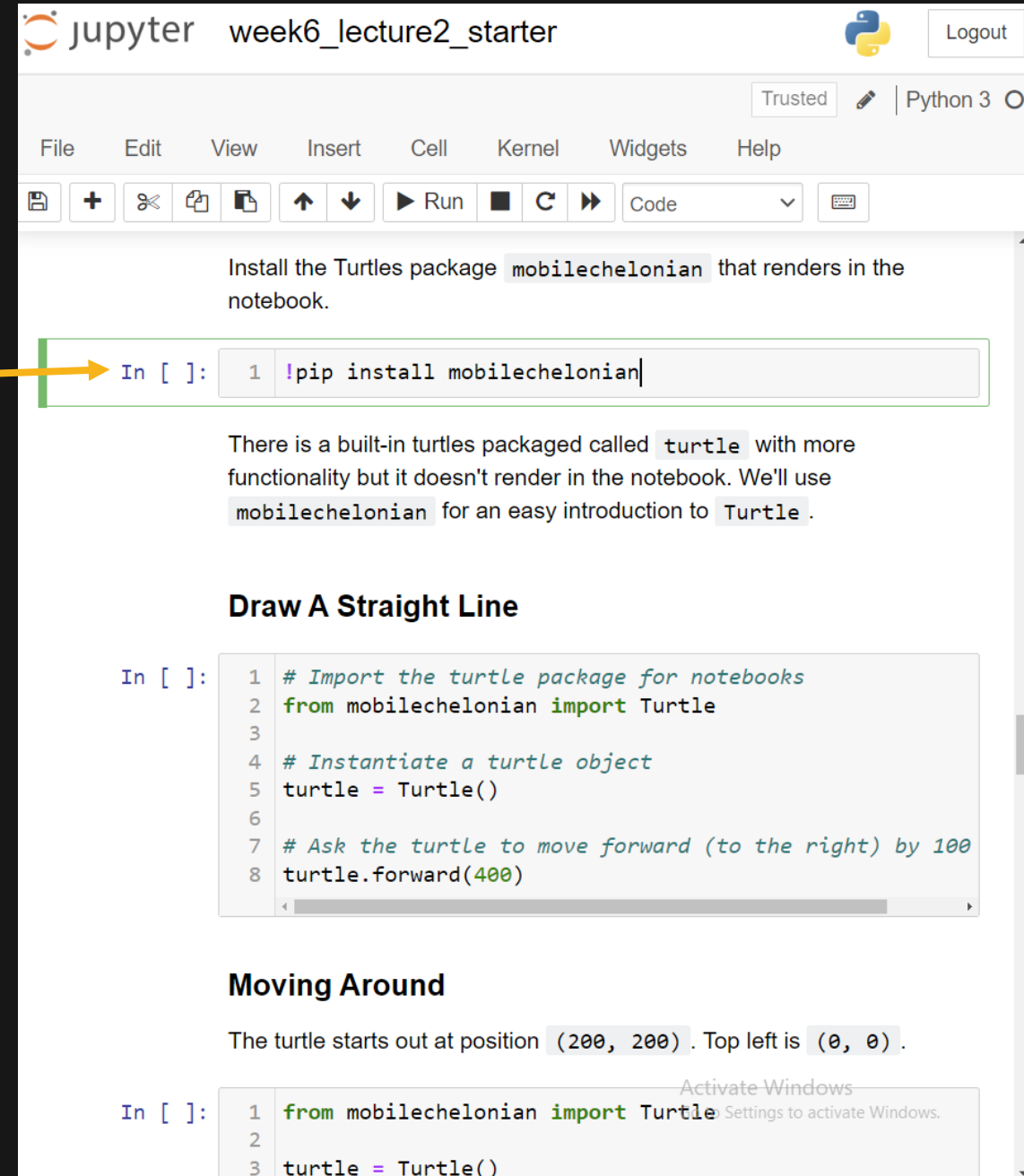
Lecture Structure

- [Breakout Session 1](#)
- [Using range\(\).](#)
- [Example 1](#)
- [Breakout Session 2](#)
- [Nested for Loops](#)
- [Turtles](#)
- [Grid](#)
- [Breakout Session 3](#)
- [Advanced Turtles](#)

Activate Windows
Go to Settings to activate Windows.

Install Turtles Package

- Run this cell which will install the Turtles package.
 - To run a cell, press **SHIFT+ENTER**.



jupyter week6_lecture2_starter Trusted Python 3

File Edit View Insert Cell Kernel Widgets Help

Install the Turtles package `mobilechelonian` that renders in the notebook.

```
In [ ]: 1 !pip install mobilechelonian
```

There is a built-in turtles packaged called `turtle` with more functionality but it doesn't render in the notebook. We'll use `mobilechelonian` for an easy introduction to `Turtle`.

Draw A Straight Line

```
In [ ]: 1 # Import the turtle package for notebooks
2 from mobilechelonian import Turtle
3
4 # Instantiate a turtle object
5 turtle = Turtle()
6
7 # Ask the turtle to move forward (to the right) by 100
8 turtle.forward(400)
```


Moving Around

The turtle starts out at position `(200, 200)`. Top left is `(0, 0)`.

```
In [ ]: 1 from mobilechelonian import Turtle
2
3 turtle = Turtle()
```

Install Turtles Package

- Run this cell which make a turtle walk across the screen.
 - To run a cell, press **SHIFT+ENTER**.

jupyter week6_lecture2_starter  Logout

Trusted Python 3

File Edit View Insert Cell Kernel Widgets Help


Run

Draw A Straight Line

In [2]:

```
1 # Import the turtle package for notebooks
2 from mobilechelonian import Turtle
3
4 # Instantiate a turtle object
5 turtle = Turtle()
6
7 # Ask the turtle to move forward (to the right) by 100
8 turtle.forward(400)
```

Help! Grid On/Off



Activate Windows
Go to Settings to activate Windows.

APS106

Turtle setup.

if nothing else, write **#cleancode**.