

# NUS-ISS

## *Pattern Recognition*



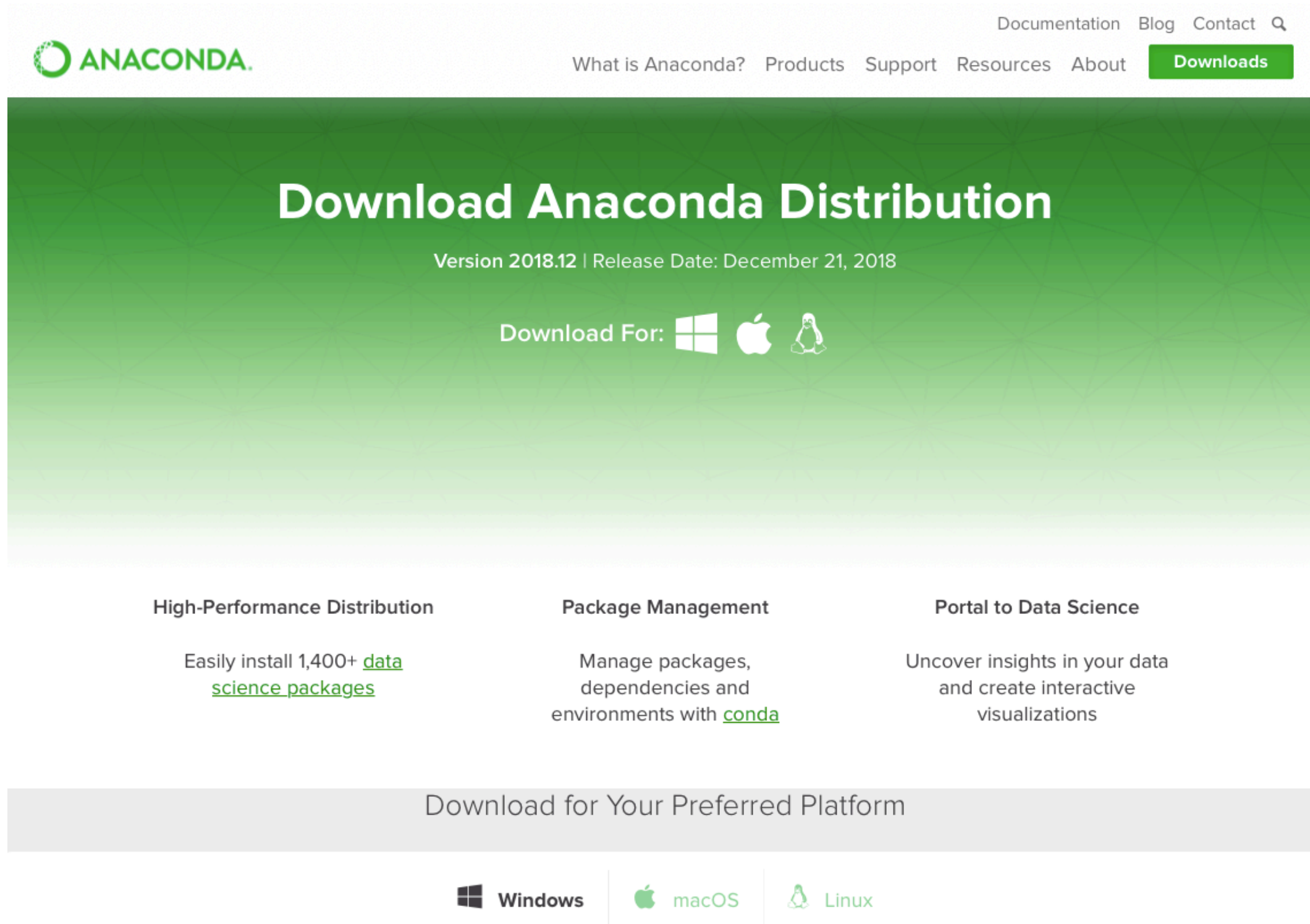
## Getting started

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# Installing Anaconda

- Go to [www.anaconda.com/download/](https://www.anaconda.com/download/)



The screenshot shows the Anaconda website's download page. At the top, there is a navigation bar with links for Documentation, Blog, Contact, and a search icon. Below this, a secondary navigation bar includes links for 'What is Anaconda?', Products, Support, Resources, About, and a prominent green 'Downloads' button. The main section features a large green banner with the text 'Download Anaconda Distribution' and 'Version 2018.12 | Release Date: December 21, 2018'. Underneath, it says 'Download For:' followed by icons for Windows, macOS, and Linux. Below the banner, there are three columns of text describing the distribution's features: 'High-Performance Distribution' (easily install 1,400+ data science packages), 'Package Management' (manage packages, dependencies, and environments with conda), and 'Portal to Data Science' (uncover insights in your data and create interactive visualizations). At the bottom, a grey bar says 'Download for Your Preferred Platform', followed by three buttons for Windows, macOS, and Linux.




ANAconda.

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## Download Anaconda Distribution

Version 2018.12 | Release Date: December 21, 2018

Download For:   

**High-Performance Distribution**

Easily install 1,400+ [data science packages](#)




**Package Management**

Manage packages, dependencies and environments with [conda](#)

**Portal to Data Science**

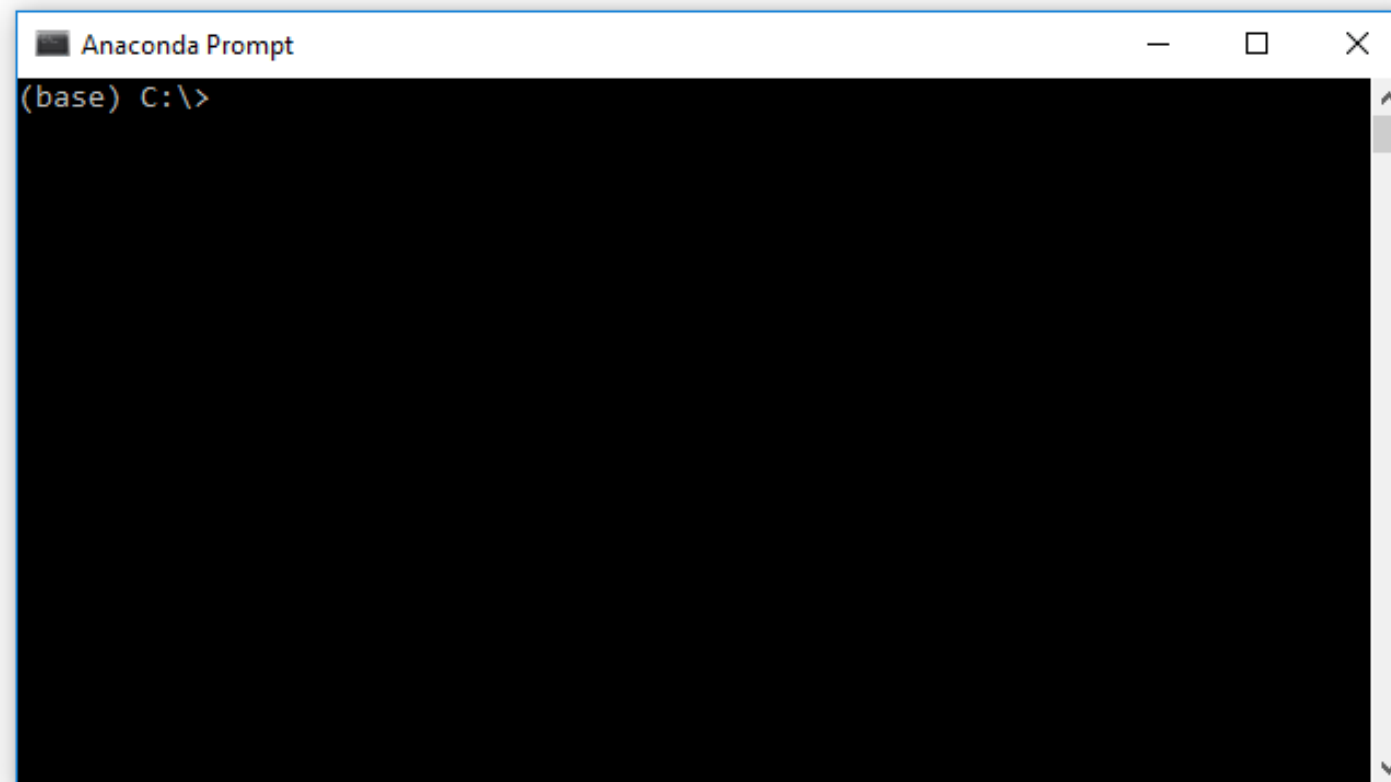
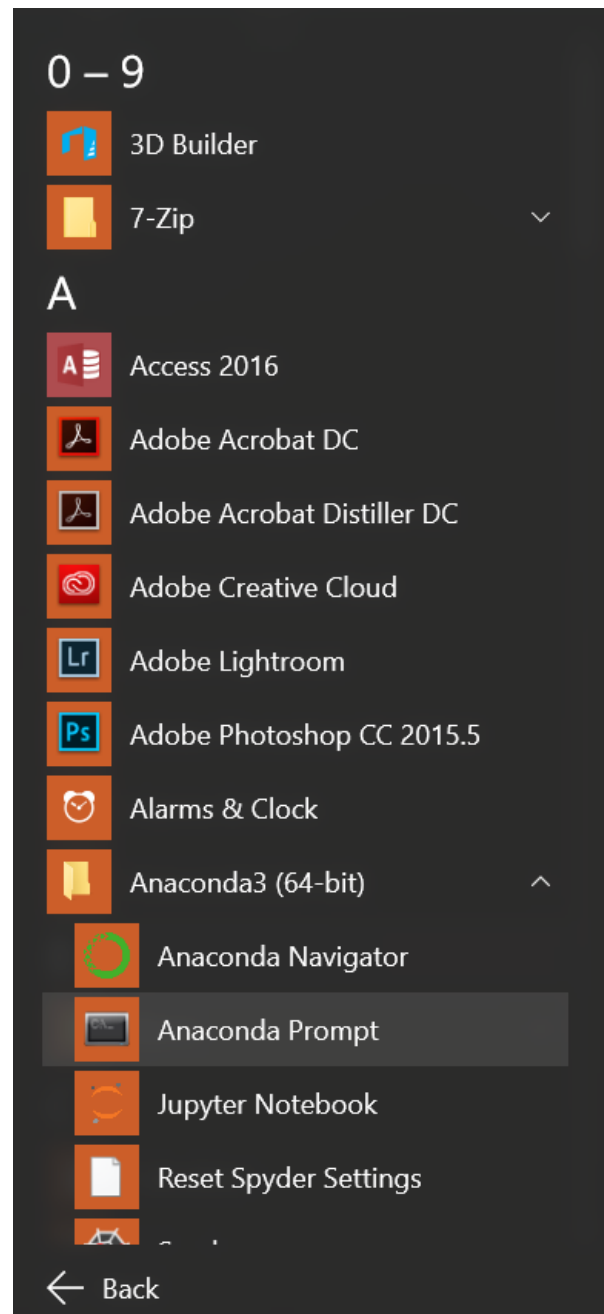
Uncover insights in your data and create interactive visualizations

Download for Your Preferred Platform

 Windows  macOS  Linux

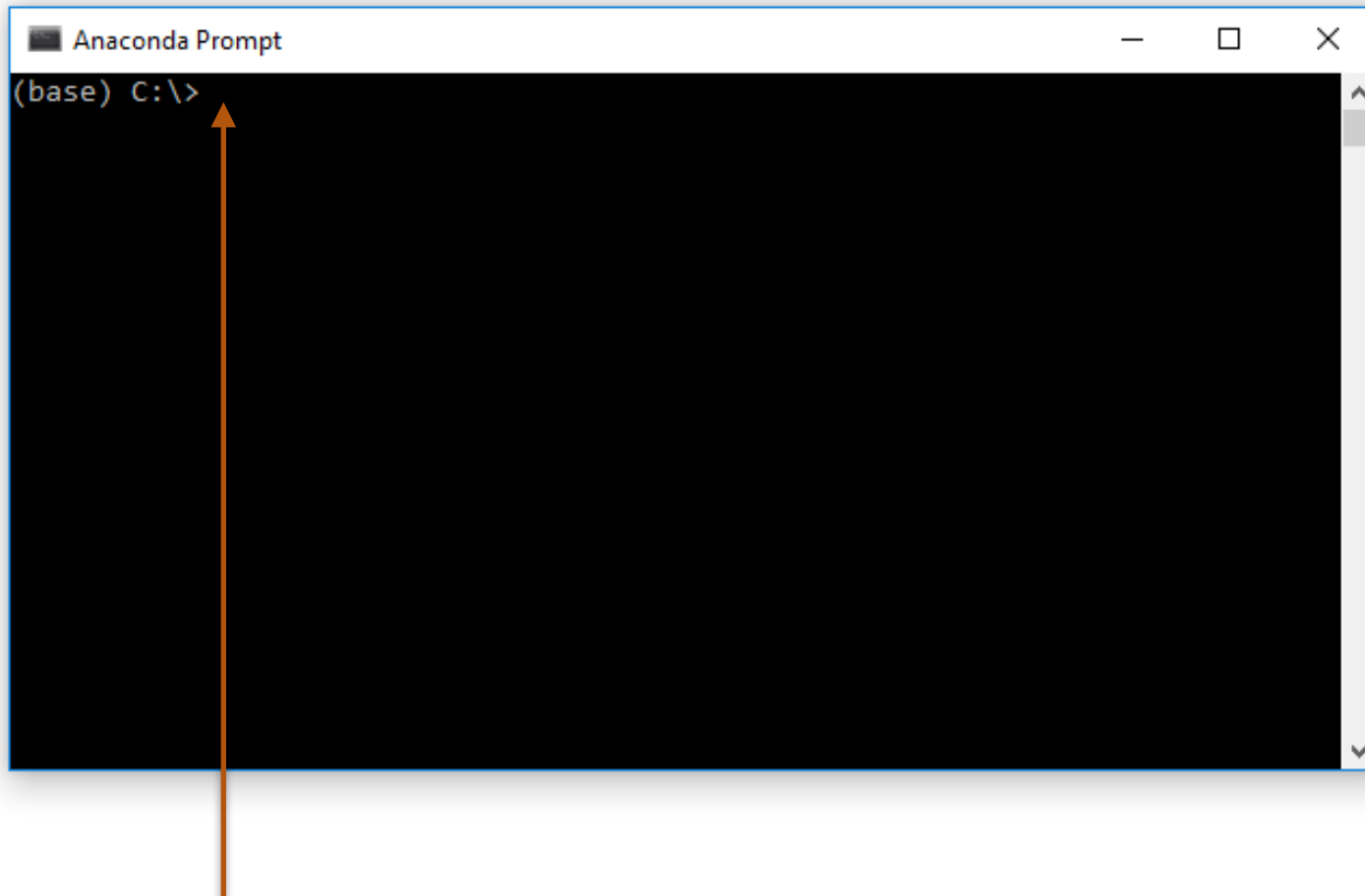
# Install packages

- Go to windows menu, find Anaconda Prompt and launch it



# Install packages

- Type the below command into the prompt

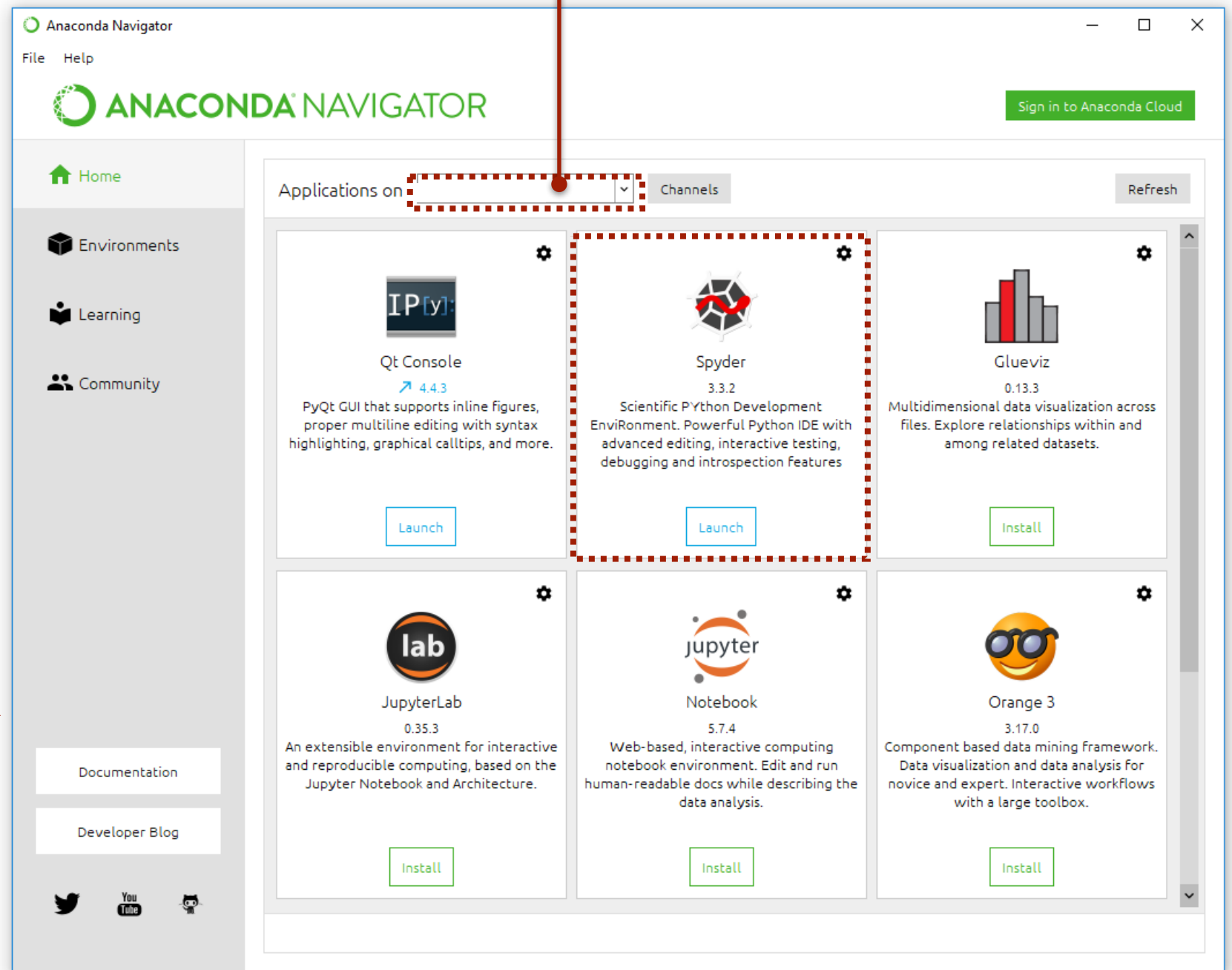
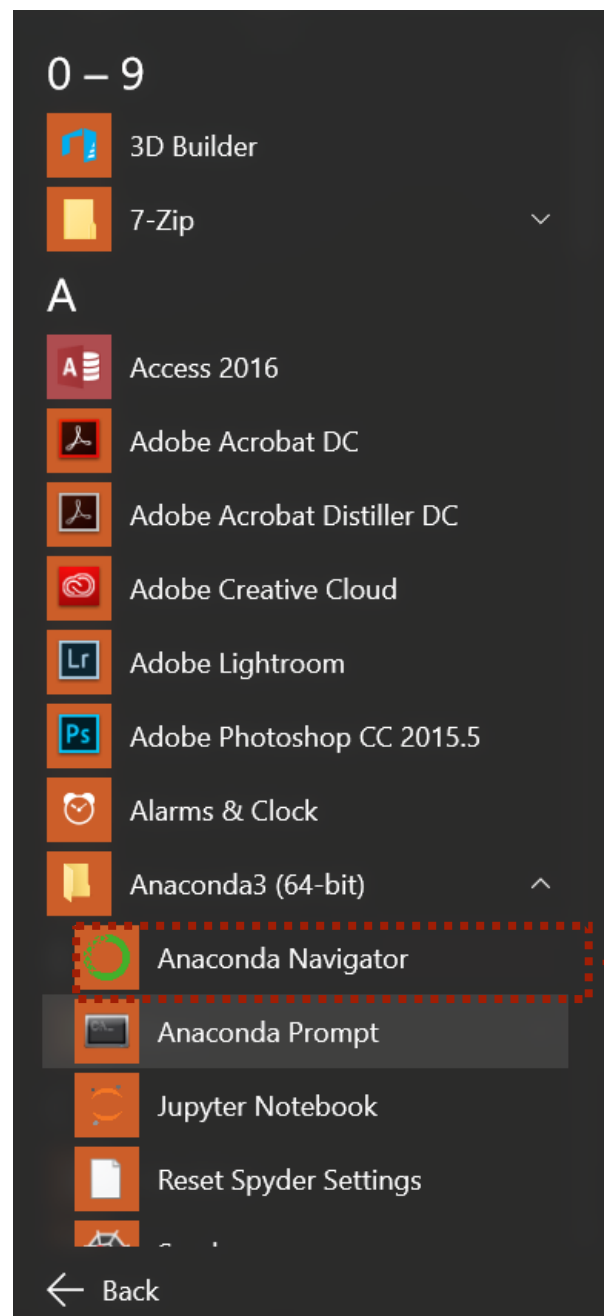


```
conda create -n ml1P13 python=3.6 numpy=1.15.1 opencv=3.4.2 matplotlib=2.2.3 tensorflow=1.13.1 tensorflow-gpu=1.13.1 cudatoolkit=9.0 cudnn=7.1.4  
scipy=1.1.0 scikit-learn=0.19.1 pillow=5.1.0 spyder=3.3.2 cython=0.29.2 pathlib=1.0.1 ipython=7.2.0 yaml pandas keras keras-gpu pydot graphviz
```

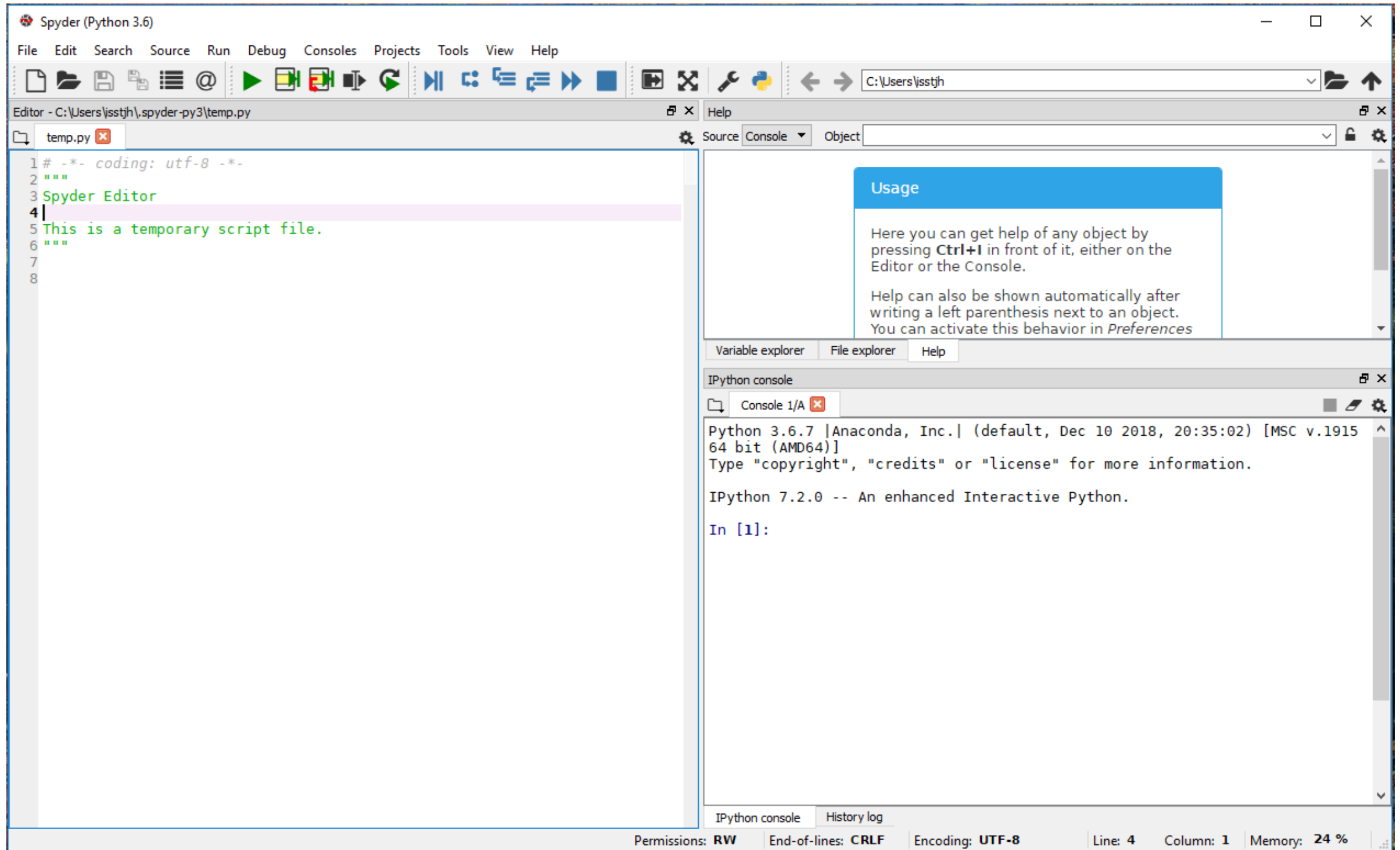
Note: Copy the above command from 'conda setup.txt'

# Launch Anaconda navigator

- Go to windows menu, find Anaconda Navigator and launch it

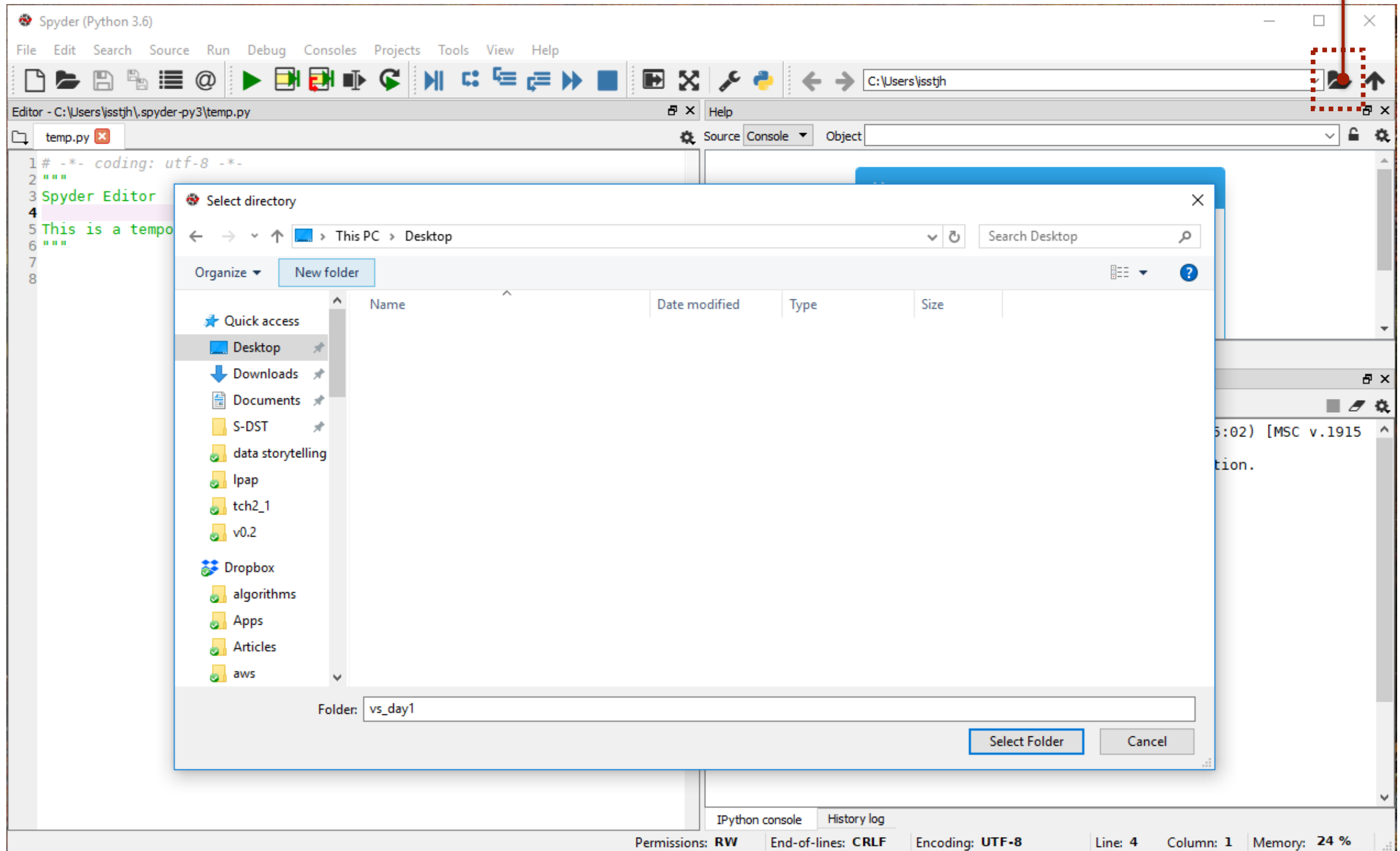


# Spyder



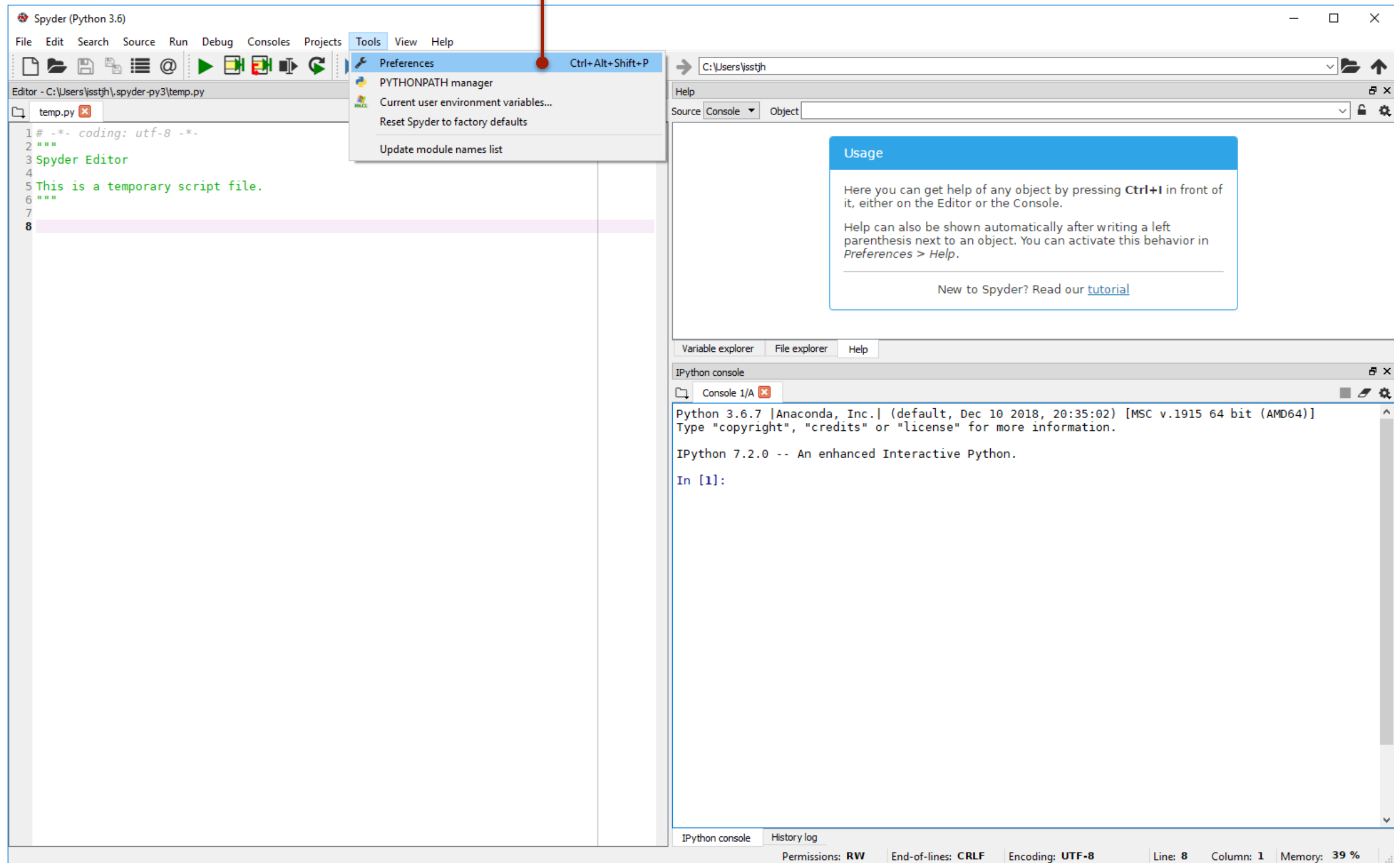
# Set directory

click this



# Set up ipython

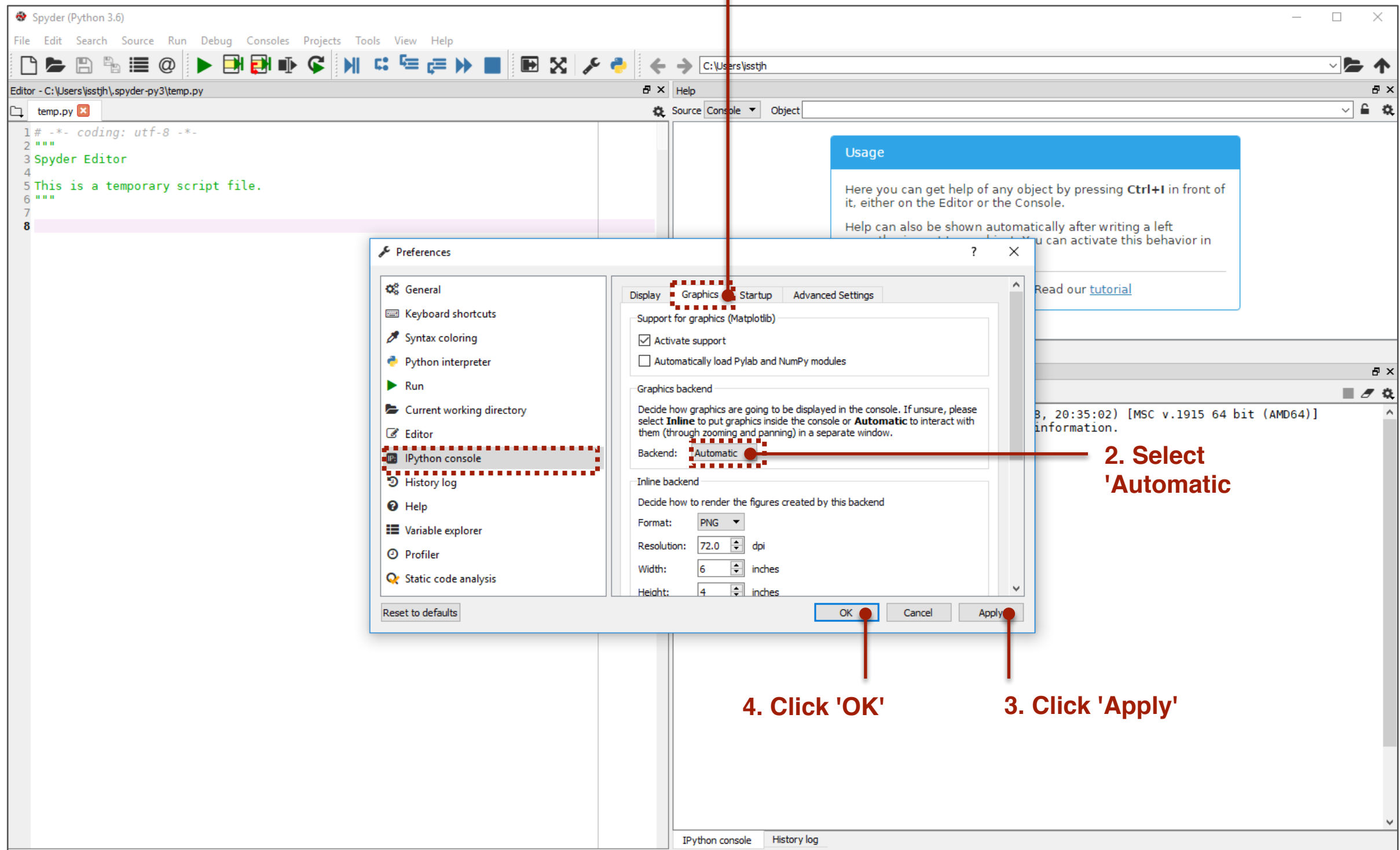
click this





# Set up ipython

1. Select  
'Graphic' tab



2. Select  
'Automatic'

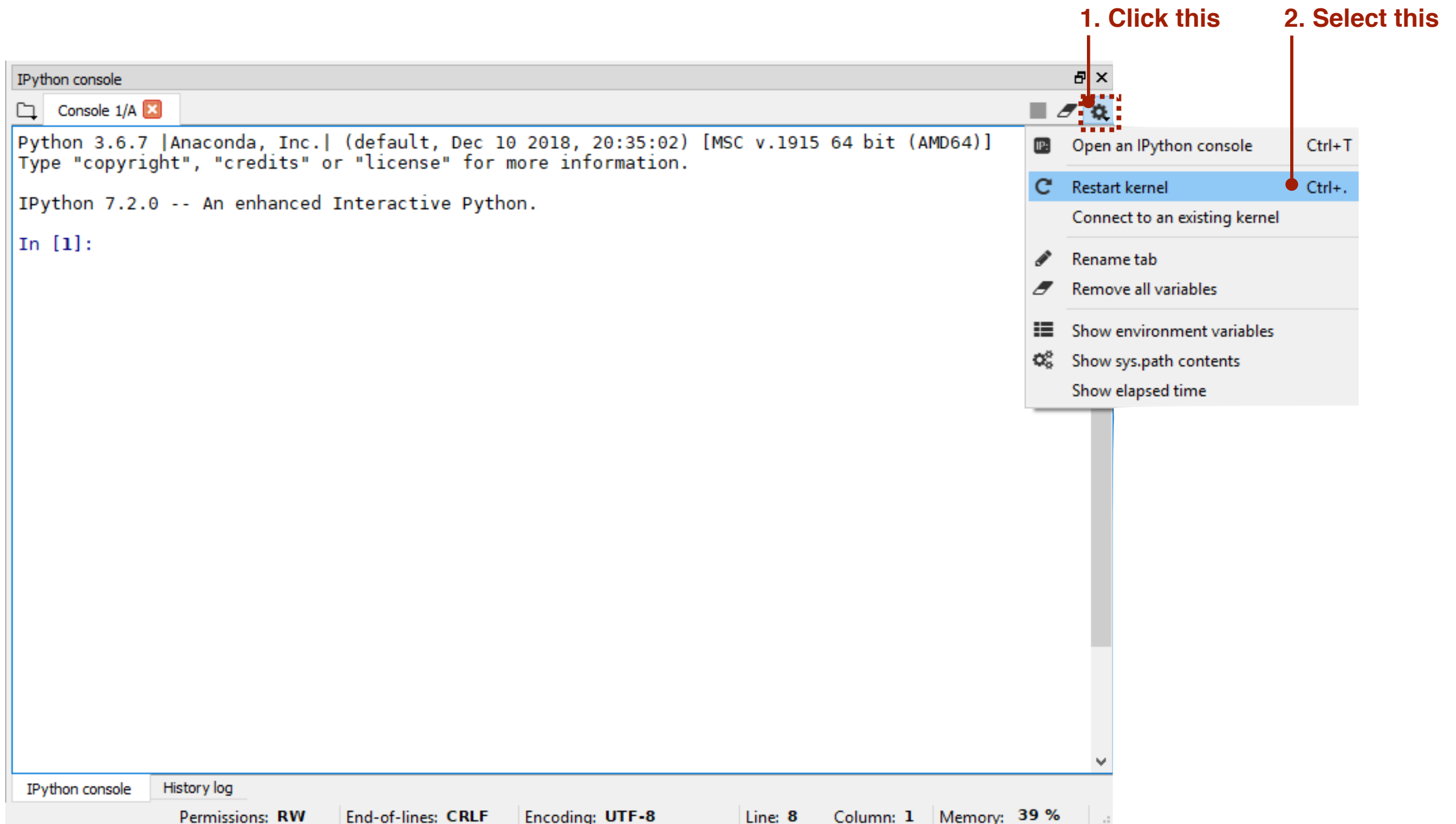
4. Click 'OK'

3. Click 'Apply'

# Restart kernel

1. Click this

2. Select this



The screenshot shows the JupyterLab IPython console interface. The console window displays the following text:

```
Python 3.6.7 |Anaconda, Inc.| (default, Dec 10 2018, 20:35:02) [MSC v.1915 64 bit (AMD64)]
Type "copyright", "credits" or "license" for more information.

IPython 7.2.0 -- An enhanced Interactive Python.

In [1]:
```

The context menu is open, showing the following options:

- Open an IPython console (Ctrl+T)
- Restart kernel (Ctrl+.)**
- Connect to an existing kernel
- Rename tab
- Remove all variables
- Show environment variables
- Show sys.path contents
- Show elapsed time

The 'Restart kernel' option is highlighted in blue. The status bar at the bottom indicates: Permissions: RW, End-of-lines: CRLF, Encoding: UTF-8, Line: 8, Column: 1, Memory: 39 %.