

Learning Python with Jupyter

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Context

We will be using Jupyter to help show people who are learning python by having it run in a web browser

Prerequisites

- [Python 3.7](#) or
- [Anaconda](#) Distribution (Reccomended)
- A python file with edit permissions

Jupyter uses the Anaconda Distribution but because it is created with python it will work with the python command line interface.

Installation

- Python 3.7
Run the Following Commands:

```
python3 -m pip install --upgrade pip  
python3 -m pip install jupyter
```

Python 2 is supported but not recommended. Python 2 commands are as follow:

```
python -m pip install --upgrade pip  
python -m pip install jupyter
```

- Anaconda
Run the Installer that was downloaded.
All defaults are fine, feel free to change the path if needed.

Instructions

1. Running Jupyter In order to start Jupyter, you will need to launch it from the Terminal or Command Prompt by running the following command:

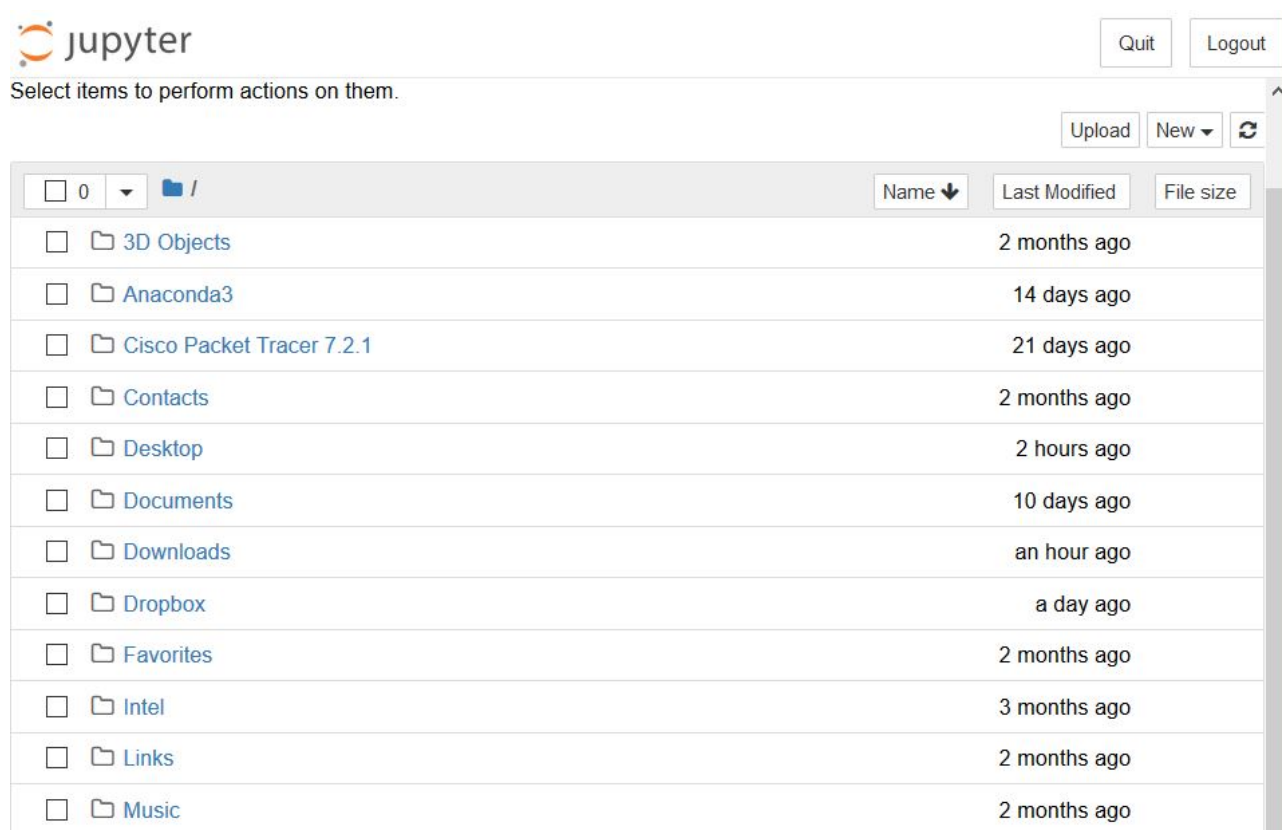
```
jupyter notebook
```

2. Once launched, you will need to open a web browser and go to one of the links specified in your cmd/terminal.

```
[C 11:50:03.770 NotebookApp]
```

```
To access the notebook, open this file in a browser:
file:///C:/Users/rjparks/AppData/Roaming/jupyter/runtime/nbserver-764-open.html
Or copy and paste one of these URLs:
http://localhost:8888/?token=4512496c412309f2f79dd2e47fa6fefe1531fb92cdc6d3b3
```

here is an example of what you should see when it is launched.



The screenshot shows the Jupyter Notebook web interface. At the top left is the Jupyter logo and the text "jupyter". To the right are "Quit" and "Logout" buttons. Below this is a message: "Select items to perform actions on them." To the right of this message are "Upload", "New", and a refresh icon. The main area is a file browser showing the root directory "/". It has a table with columns "Name", "Last Modified", and "File size". The table lists various system folders and their last modification times.

	Name	Last Modified	File size
<input type="checkbox"/>	0		
<input type="checkbox"/>	/		
<input type="checkbox"/>	3D Objects	2 months ago	
<input type="checkbox"/>	Anaconda3	14 days ago	
<input type="checkbox"/>	Cisco Packet Tracer 7.2.1	21 days ago	
<input type="checkbox"/>	Contacts	2 months ago	
<input type="checkbox"/>	Desktop	2 hours ago	
<input type="checkbox"/>	Documents	10 days ago	
<input type="checkbox"/>	Downloads	an hour ago	
<input type="checkbox"/>	Dropbox	a day ago	
<input type="checkbox"/>	Favorites	2 months ago	
<input type="checkbox"/>	Intel	3 months ago	
<input type="checkbox"/>	Links	2 months ago	
<input type="checkbox"/>	Music	2 months ago	

- Using the Notebook Once Launched, navigate your C:\\ folder to locate a python file. And open it.

```

1 import random
2 def main():
3     play_again = 'y'
4     number_of_tied_games = 0
5     number_of_player_games = 0
6     number_of_computer_games = 0
7     print("Let's play the game of Rock, Paper, Scissors, Lizard, Spock.")
8     while play_again == 'y' or play_again == 'Y':
9         computer_choice = process_computer_choice()
10        player_choice = process_player_choice()
11        if computer_choice == 1:
12            print('The Computer chooses Gun.')
13        elif computer_choice == 2:
14            print('The Computer chooses Dynamite.')
15        elif computer_choice == 3:
16            print('The Computer chooses Nuke.')
17        elif computer_choice == 4:
18            print('The Computer chooses Lightning.')
19        elif computer_choice == 5:
20            print('The Computer chooses Devil.')
21        elif computer_choice == 6:
22            print('The Computer chooses Dragon.')
23        elif computer_choice == 7:
24            print('The Computer chooses Alien.')
25        elif computer_choice == 8:
26            print('The Computer chooses Water.')
27        elif computer_choice == 9:
28            print('The Computer chooses Bowl.')
29        elif computer_choice == 10:
30            print('The Computer chooses Air.')
31        elif computer_choice == 11:
32            print('The Computer chooses Moon.')
33        elif computer_choice == 12:
34            print('The Computer chooses Paper.')
35        elif computer_choice == 13:
36            print('The Computer chooses Sponge.')

```

4. Editing with Jupyter Notebooks Once opened, you can edit your source code right in the interface.

Reflection

Provide some thought questions that help the learner make sense of how the tutorial fits in the bigger picture.