Python for Accounting Applications

Functions and Modules; Files and Exception Handling

1141PAA06
ACC2, NTPU (U2004) (Fall 2025)
Wed 6, 7, 8, (14:10-17:00) (9:10-12:00) (B3F10)

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Professor and Director

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https://web.ntpu.edu.tw/~myday

2025-10-15

Syllabus

Week	Date	Subject/Topics
1	2025/09/10	Introduction to Python for Accounting Applications
2	2025/09/17	Python Programming and Data Science
3	2025/09/24	Foundations of Python Programming
4	2025/10/01	Data Structures
5	2025/10/08	Control Logic and Loops
6	2025/10/15	Functions and Modules; Files and Exception Handling
7	2025/10/22	Data Analytics and Visualization with Python
8	2025/10/29	Self-Learning

Syllabus

Week	Date	Subject/Topics
9	2025/11/05	Midterm Project Report
10	2025/11/12	Obtaining Data From the Web with Python
11	2025/11/19	Statistical Analysis with Python
12	2025/11/26	Machine Learning with Python
13	2025/12/03	Text Analytics with Generative AI and Python
14	2025/12/10	Applications of Accounting Data Analytics with Python
15	2025/12/17	Applications of ESG Data Analytics with Python
16	2025/12/24	Final Project Report

Outline

- Python Functions: def myfunction():
- Python Classes/Objects: class MyClass:
- Python Modules: import mymodule
- Python Files (File Handling): open()
- Python Try Except (Exception Handling):
  - try: except: else: finally:

Python Functions and Modules

- Python Functions
  - def myfunction():
- Python Classes/Objects
  - class MyClass:
- Python Modules
  - mymodule.py
  - import mymodule

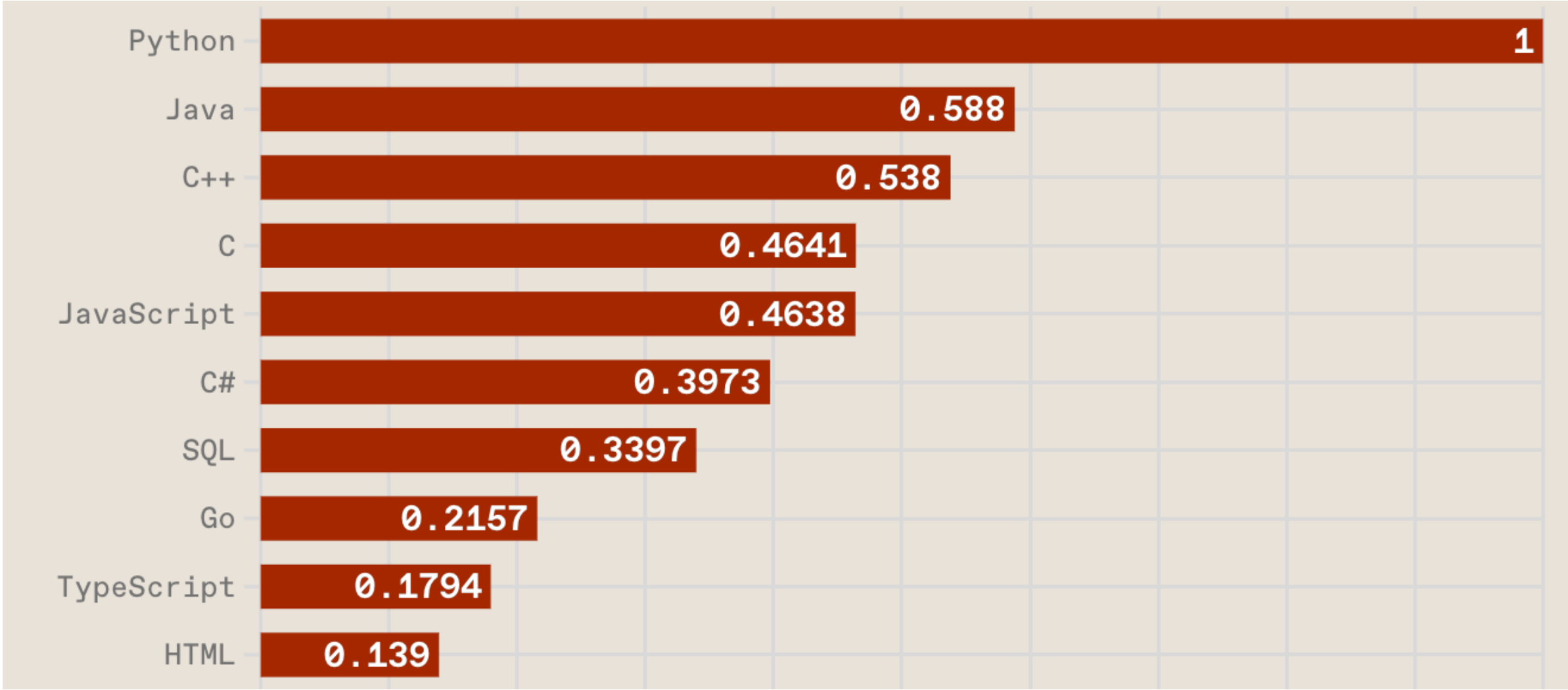
Files and Exception Handling

- Python Files (File Handling)
  - open()
  - f = open("myfile.txt")
- Python Try Except (Exception Handling)
  - try:
    except:
    else:
    finally:

Python

Programming

Top Programming Languages



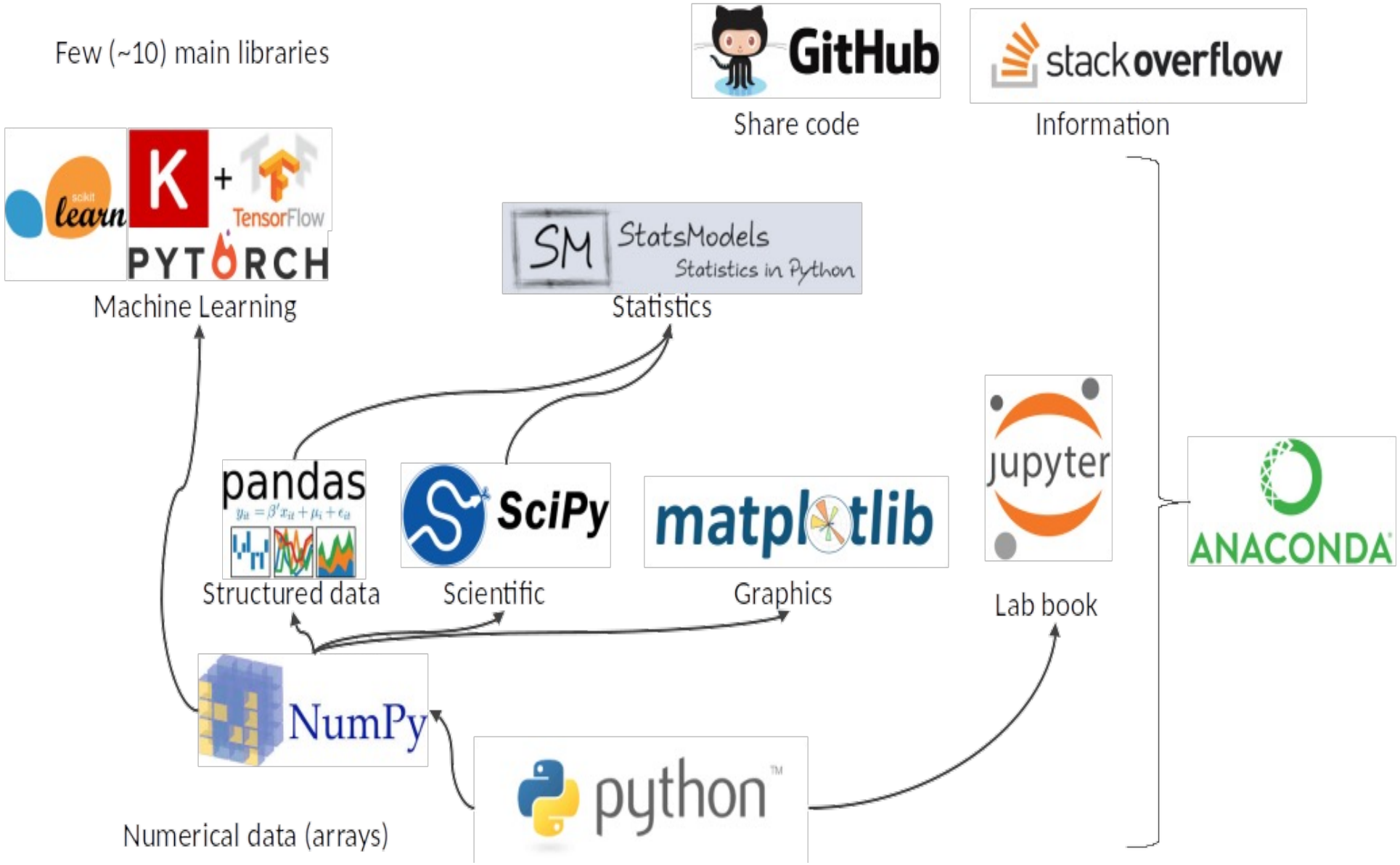
https://spectrum.ieee.org/the-top-programming-languages-2023

python™

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics.

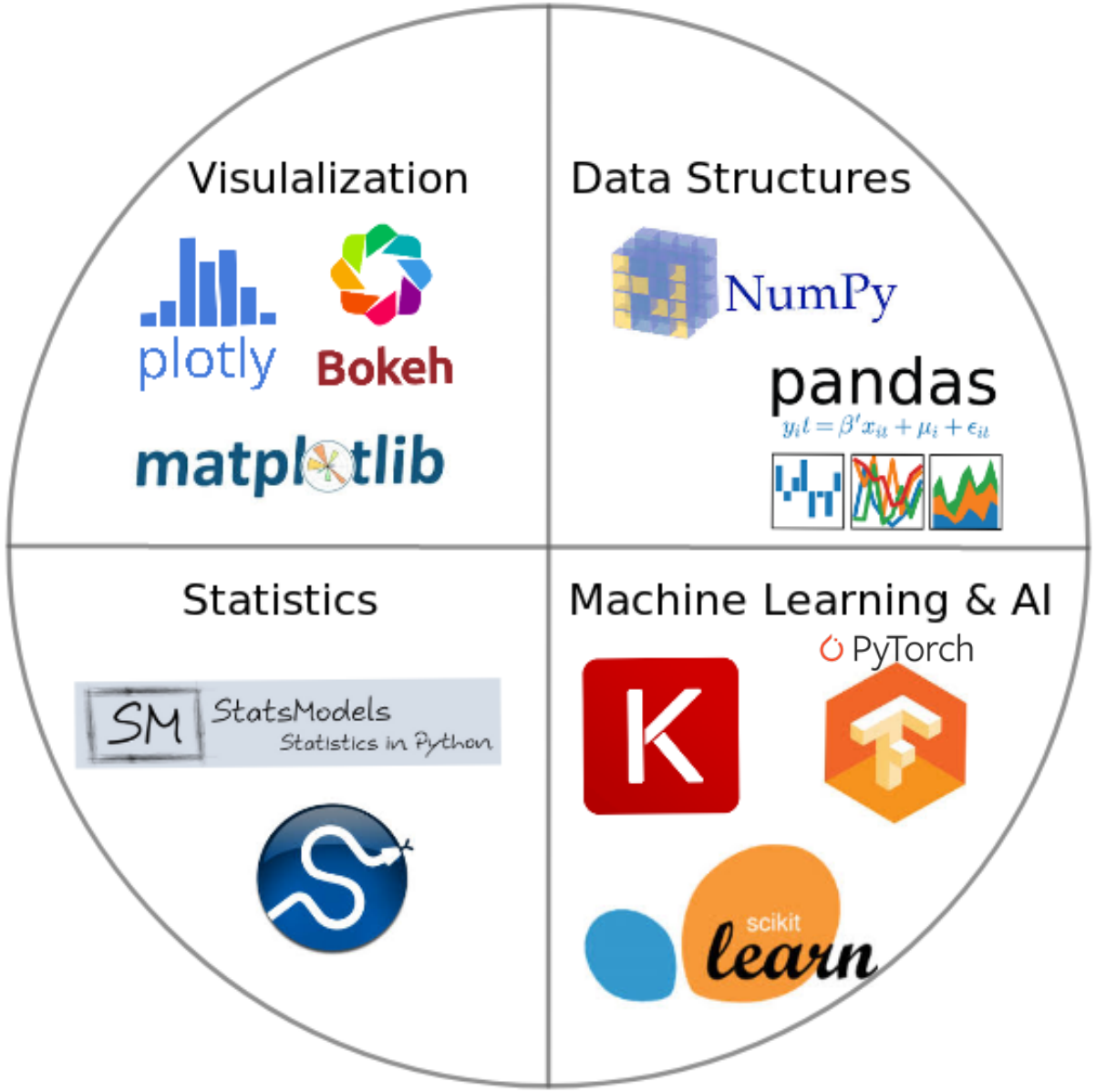
Source: https://www.python.org/doc/essays/blurb/

Python Ecosystem for Data Science



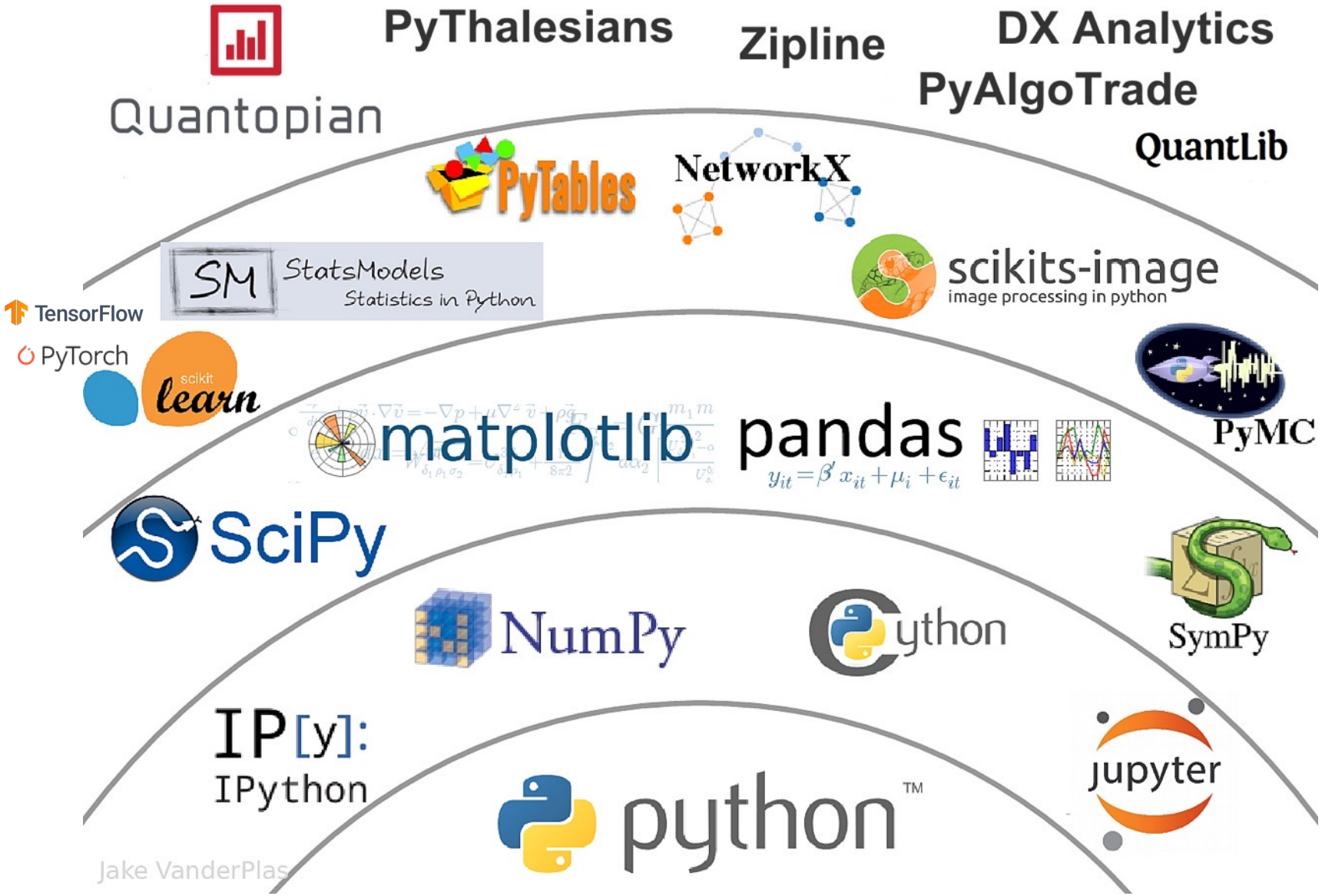
Source: https://medium.com/pyfinance/why-python-is-best-choice-for-financial-data-modeling-in-2019-c0d0d1858c45

Python Ecosystem for Data Science



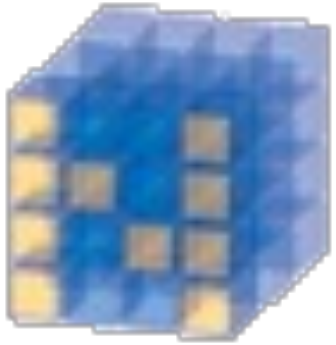
Source:https://duchesnay.github.io/pystatsml/introduction/python_ecosystem.html

The Quant Finance PyData Stack



Source: http://nbviewer.jupyter.org/format/slides/github/quantopian/pyfolio/blob/master/pyfolio/examples/overview_slides.ipynb#/5

Numpy



NumPy

Base

N-dimensional array

package

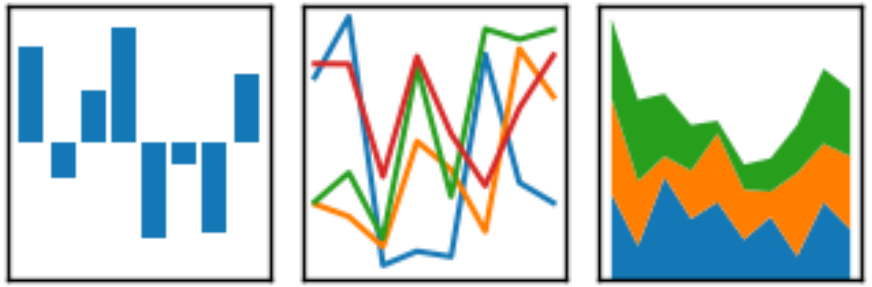
Python matplotlib

Source: https://matplotlib.org/

Python Pandas

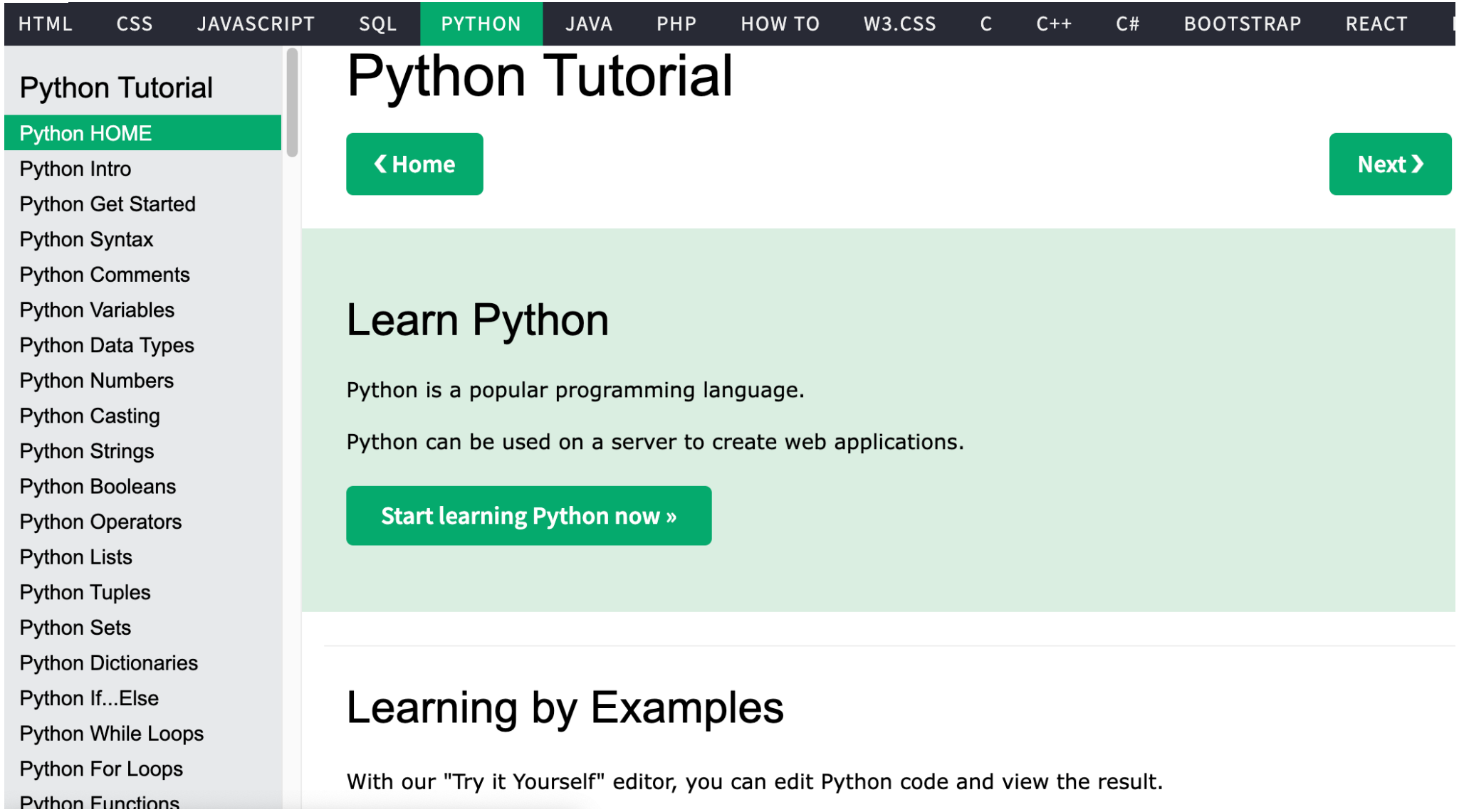
pandas

$$y_{it} = \beta' x_{it} + \mu_i + \epsilon_{it}$$



http://pandas.pydata.org/

W3Schools Python

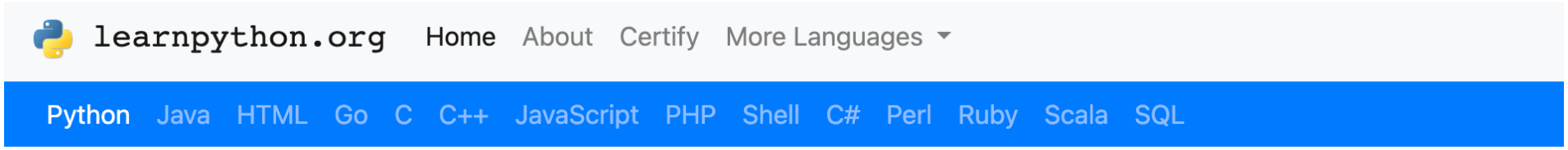


https://www.w3schools.com/python/

W3Schools Python: Try Python

https://www.w3schools.com/python/trypython.asp?filename=demo_default

LearnPython.org



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Welcome to the LearnPython.org interactive Python tutorial.

Whether you are an experienced programmer or not, this website is intended for everyone who wishes to learn the Python programming language.

You are welcome to join our group on Facebook for questions, discussions and updates.

After you complete the tutorials, you can get certified at LearnX and add your certification to your LinkedIn profile.

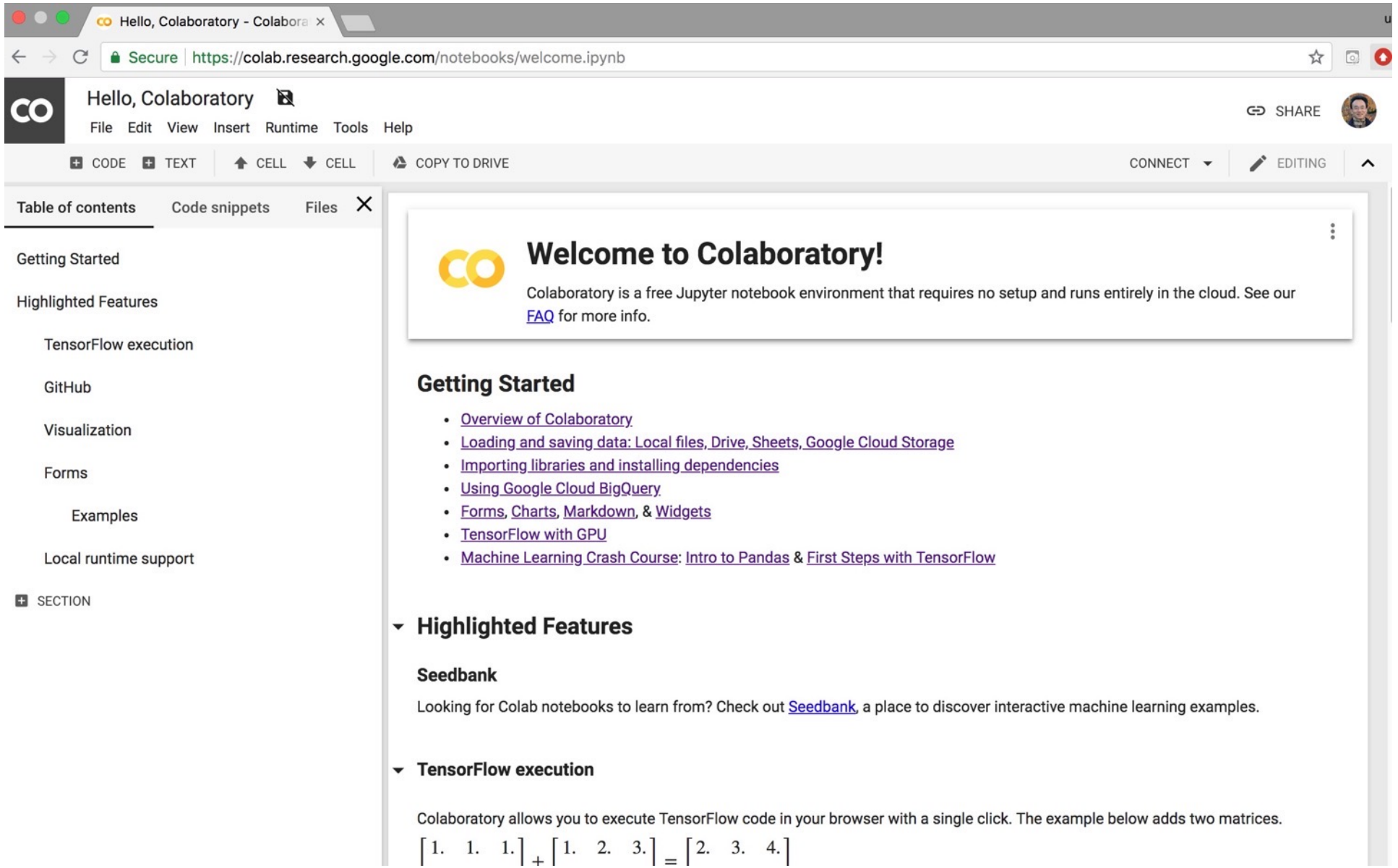
Just click on the chapter you wish to begin from, and follow the instructions. Good luck!

https://www.learnpython.org/

Google's Python Class

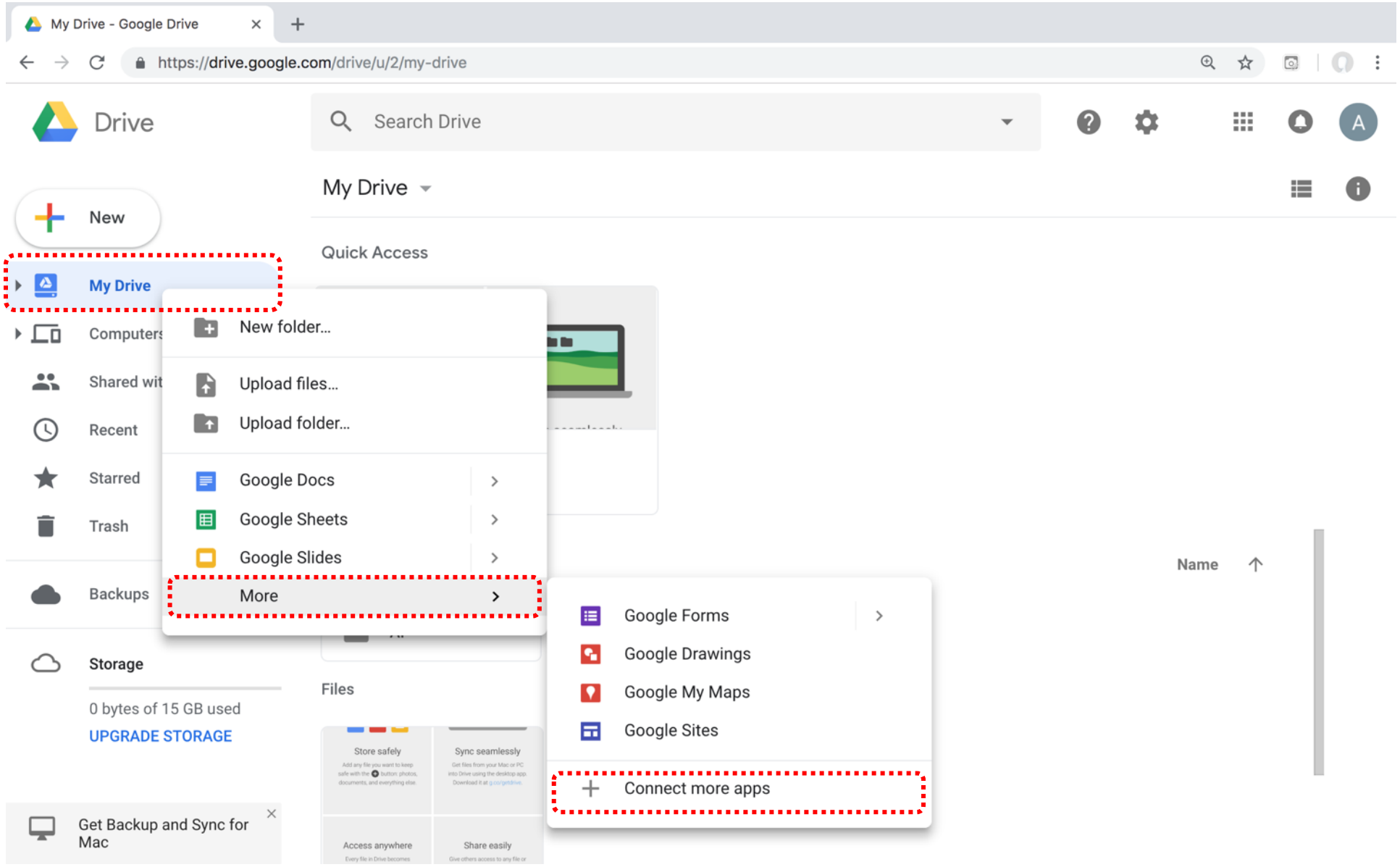
https://developers.google.com/edu/python

Google Colab

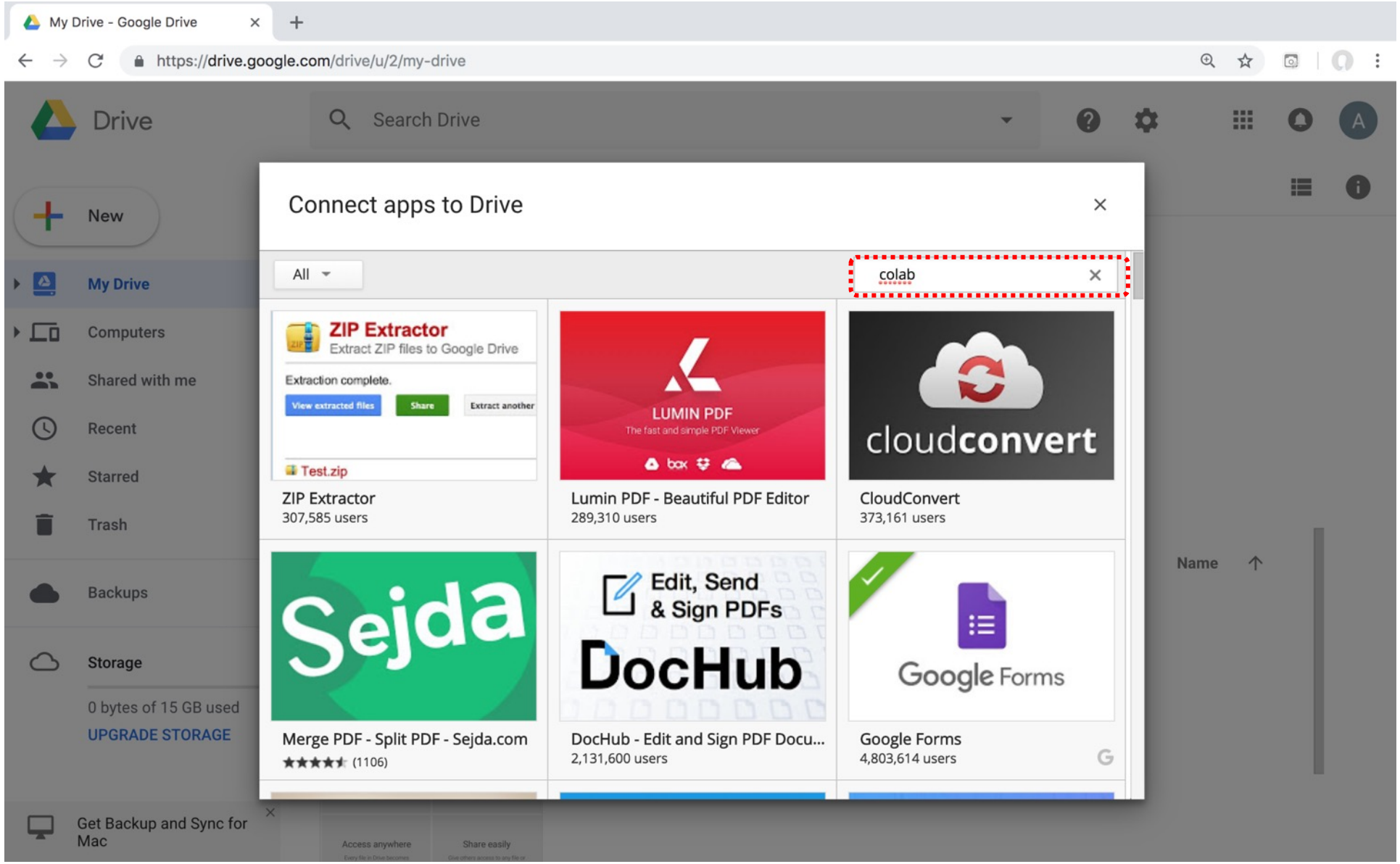


https://colab.research.google.com/notebooks/welcome.ipynb

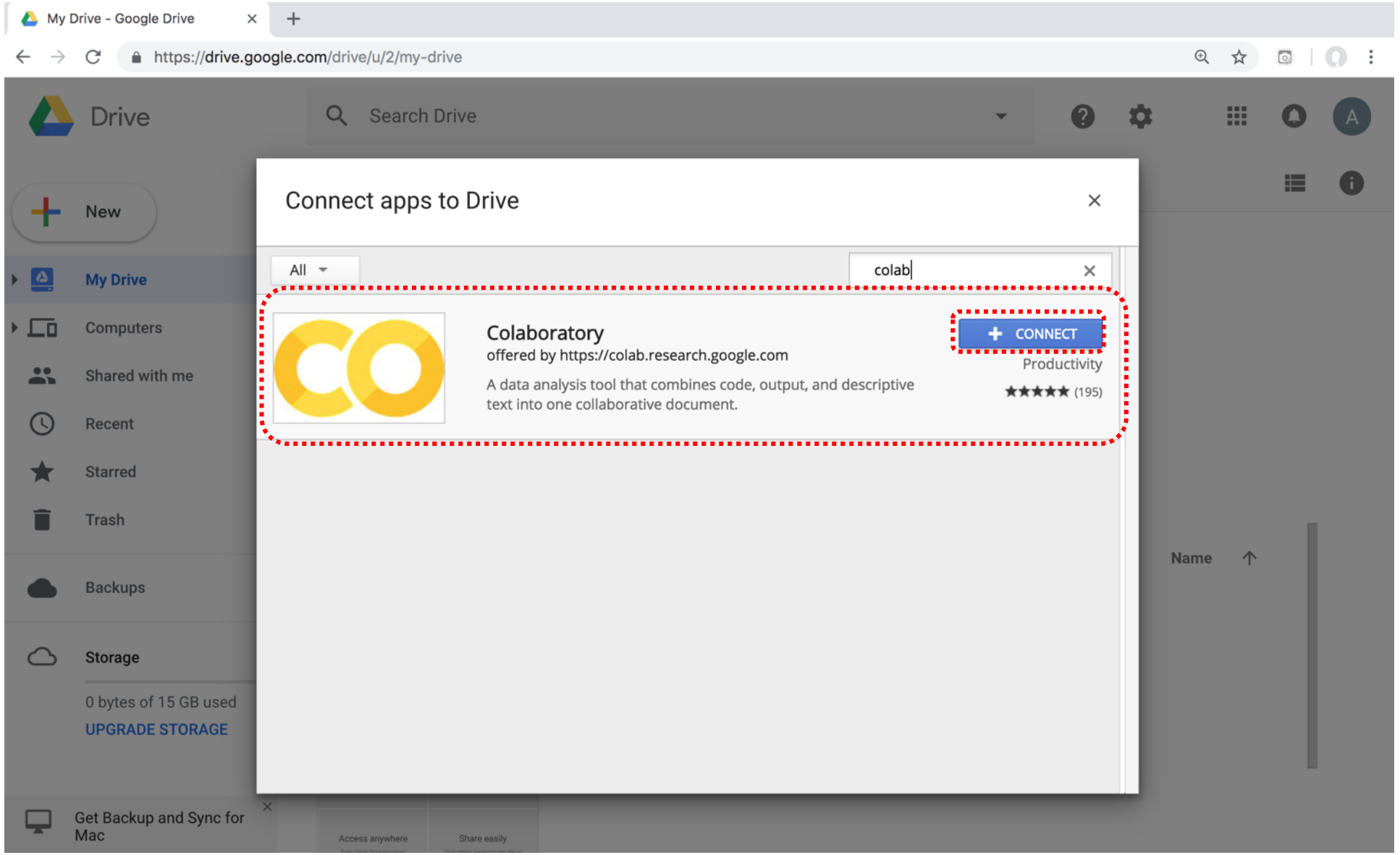
Connect Google Colab in Google Drive



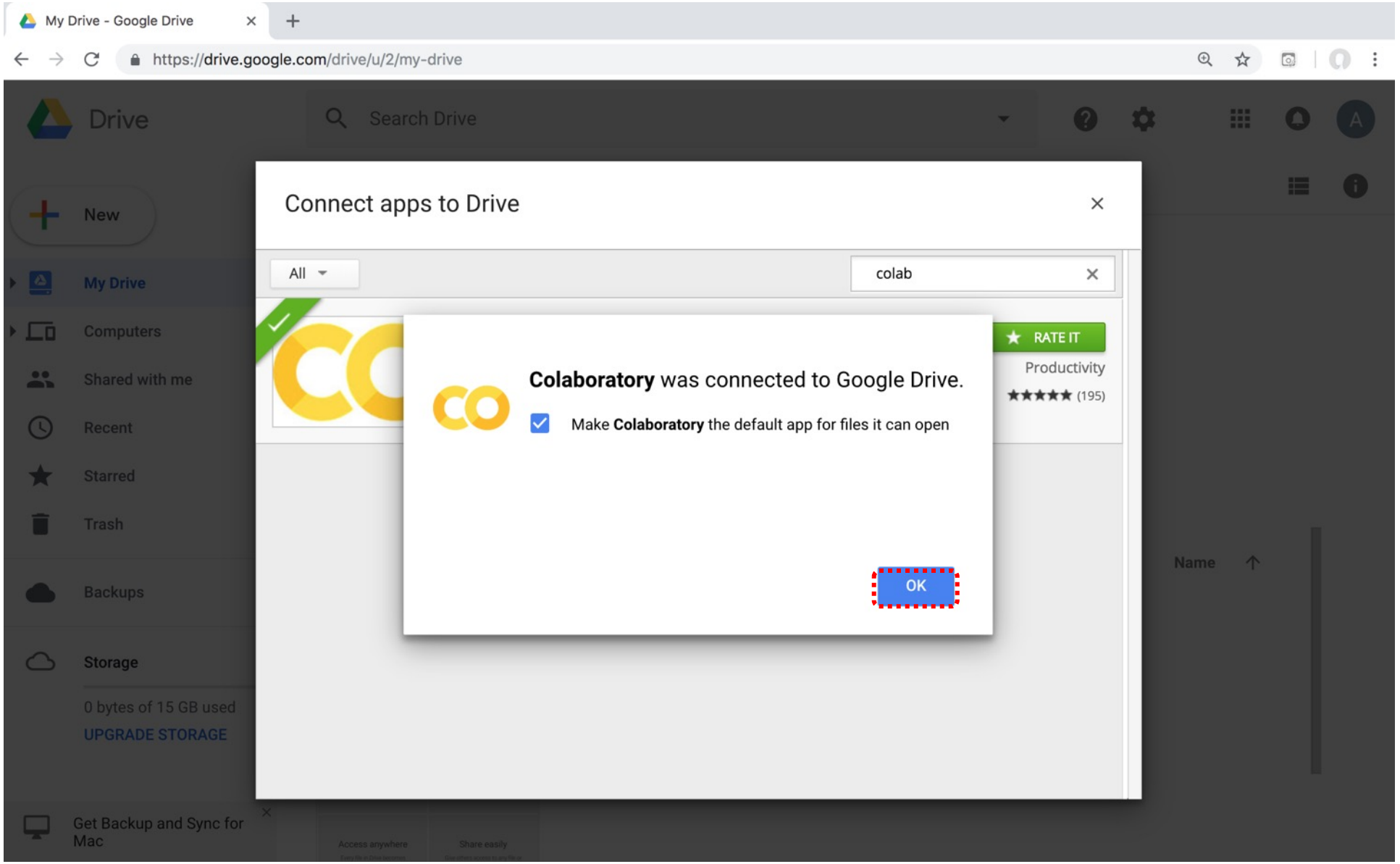
Google Colab



Google Colab



Connect Colaboratory to Google Drive



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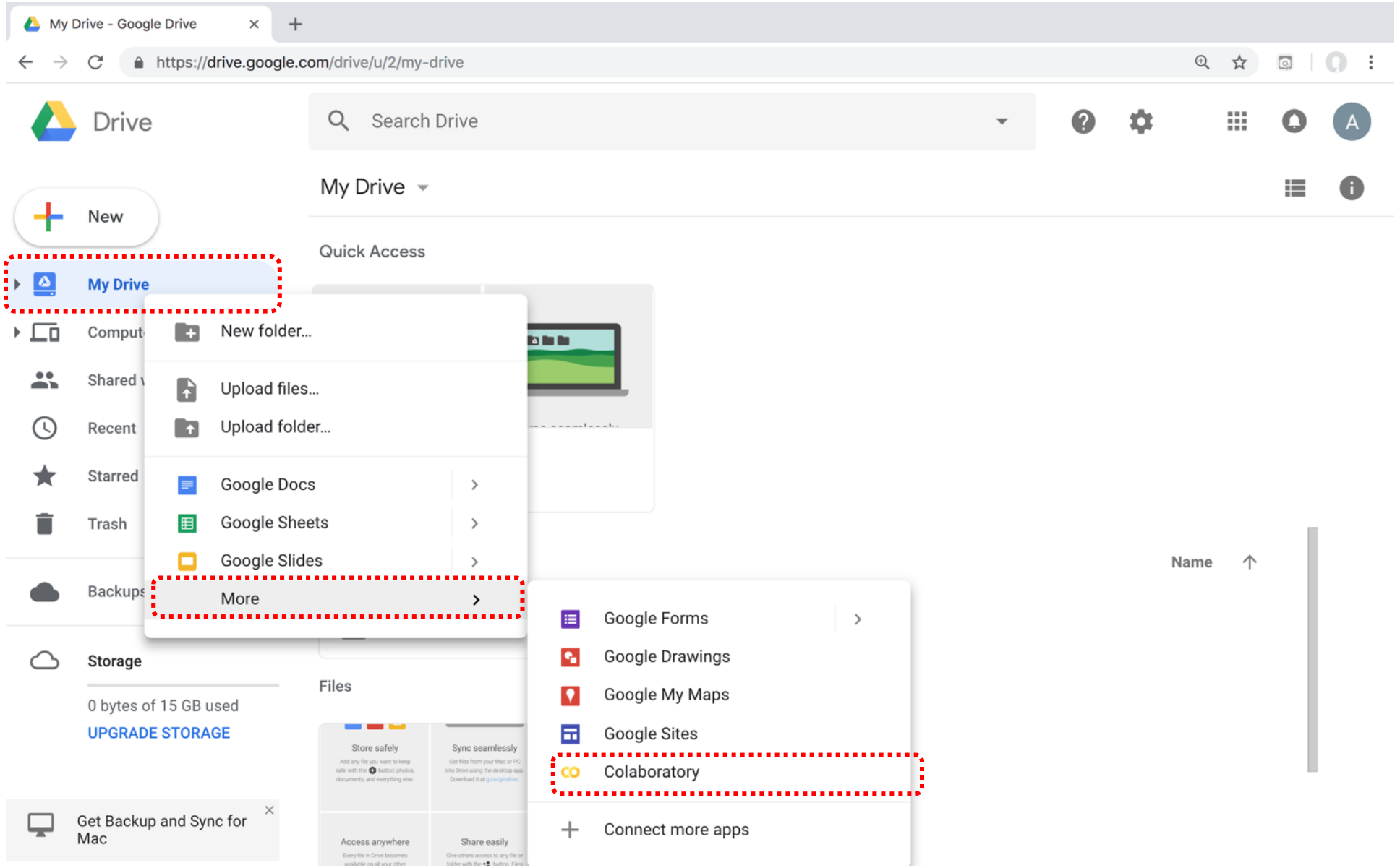
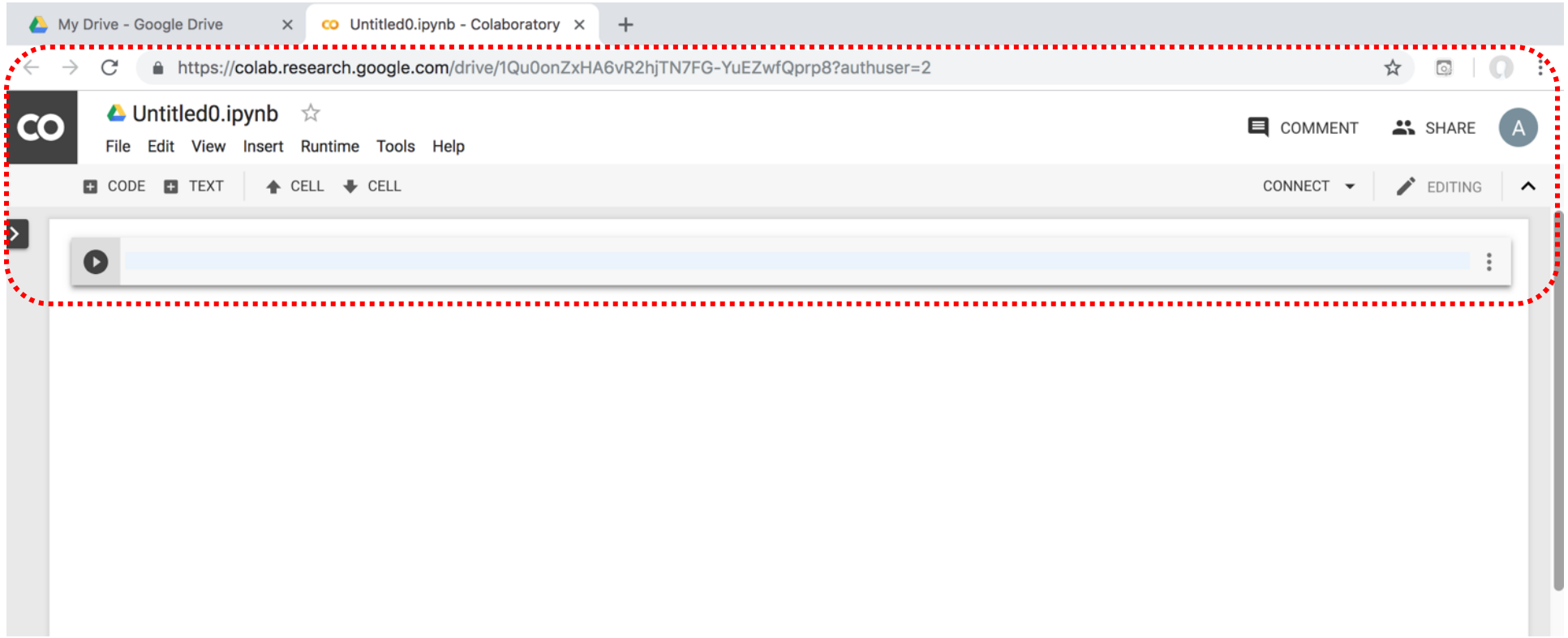
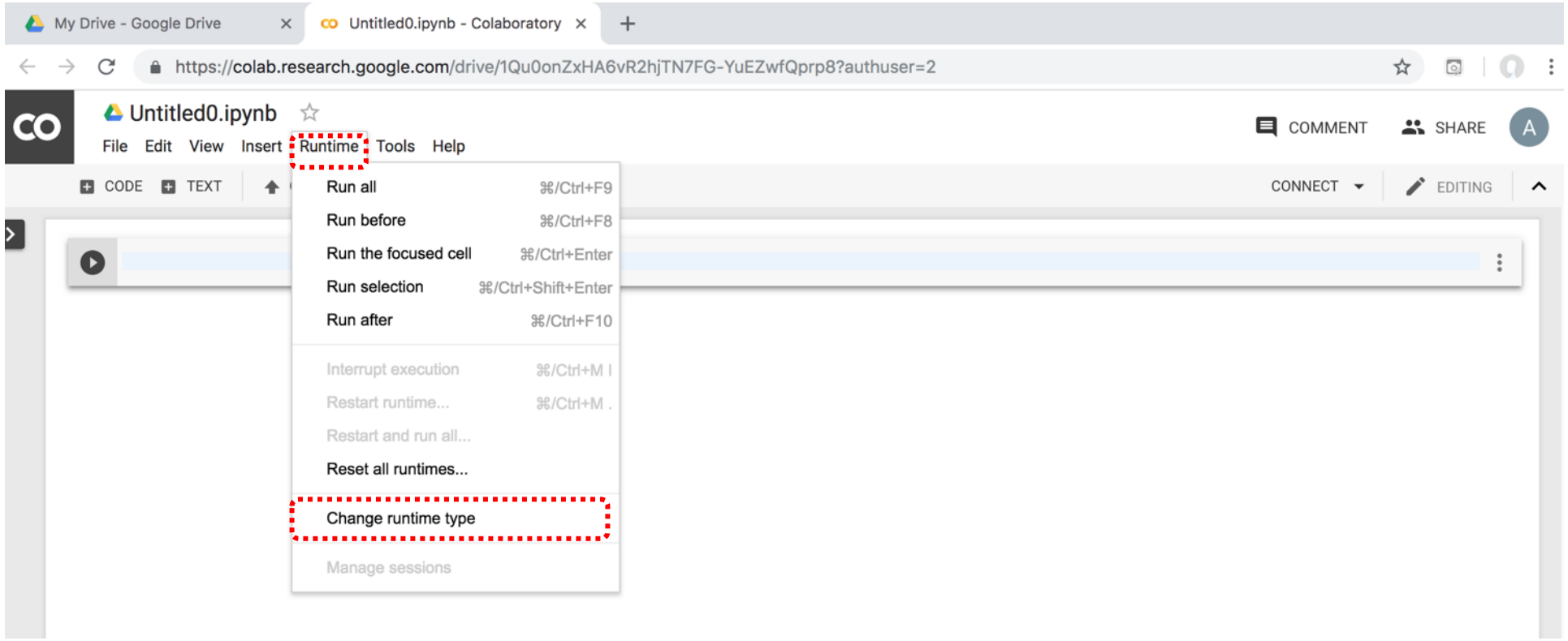


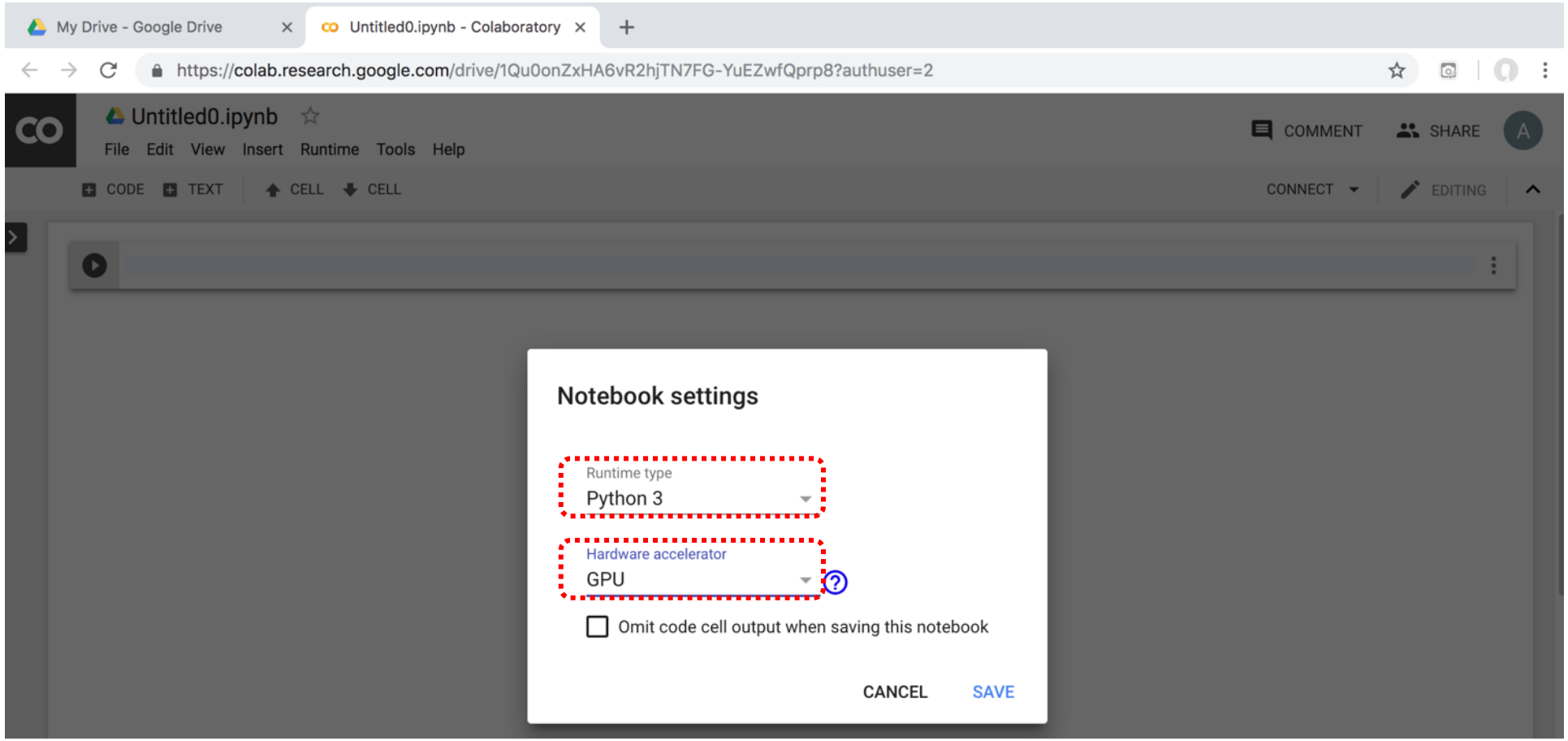
Google Colab



Google Colab



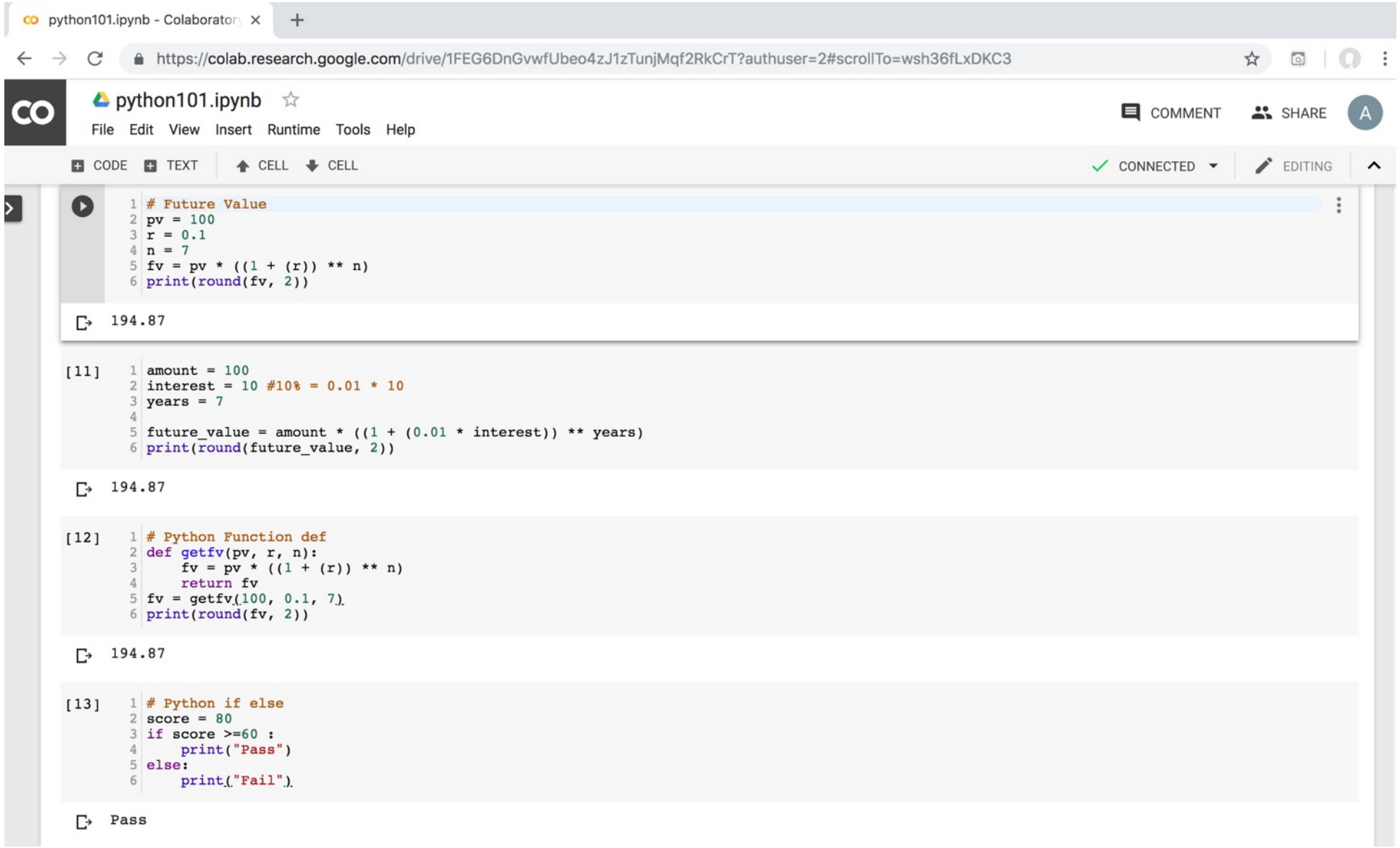
Run Jupyter Notebook
Python3 GPU
Google Colab



Google Colab Python Hello World
print('Hello World')

Python in Google Colab (Python101)

https://colab.research.google.com/drive/1FEG6DnGvwfUbeo4zJ1zTunjMqf2RkCrT

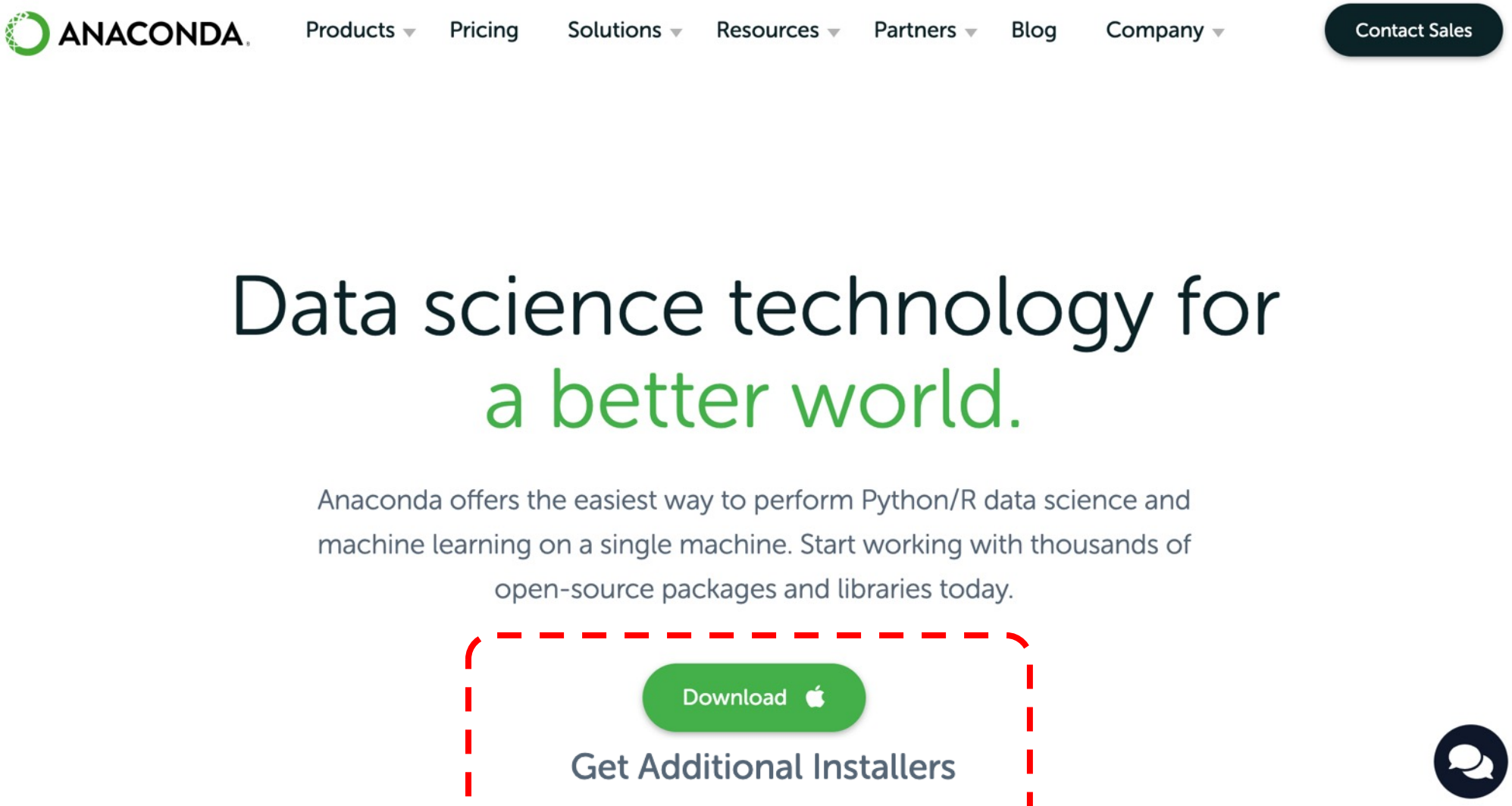


https://tinyurl.com/aintpupython101

Anaconda
The Most Popular
Python
Data Science Platform

Source: https://www.anaconda.com/

Download Anaconda

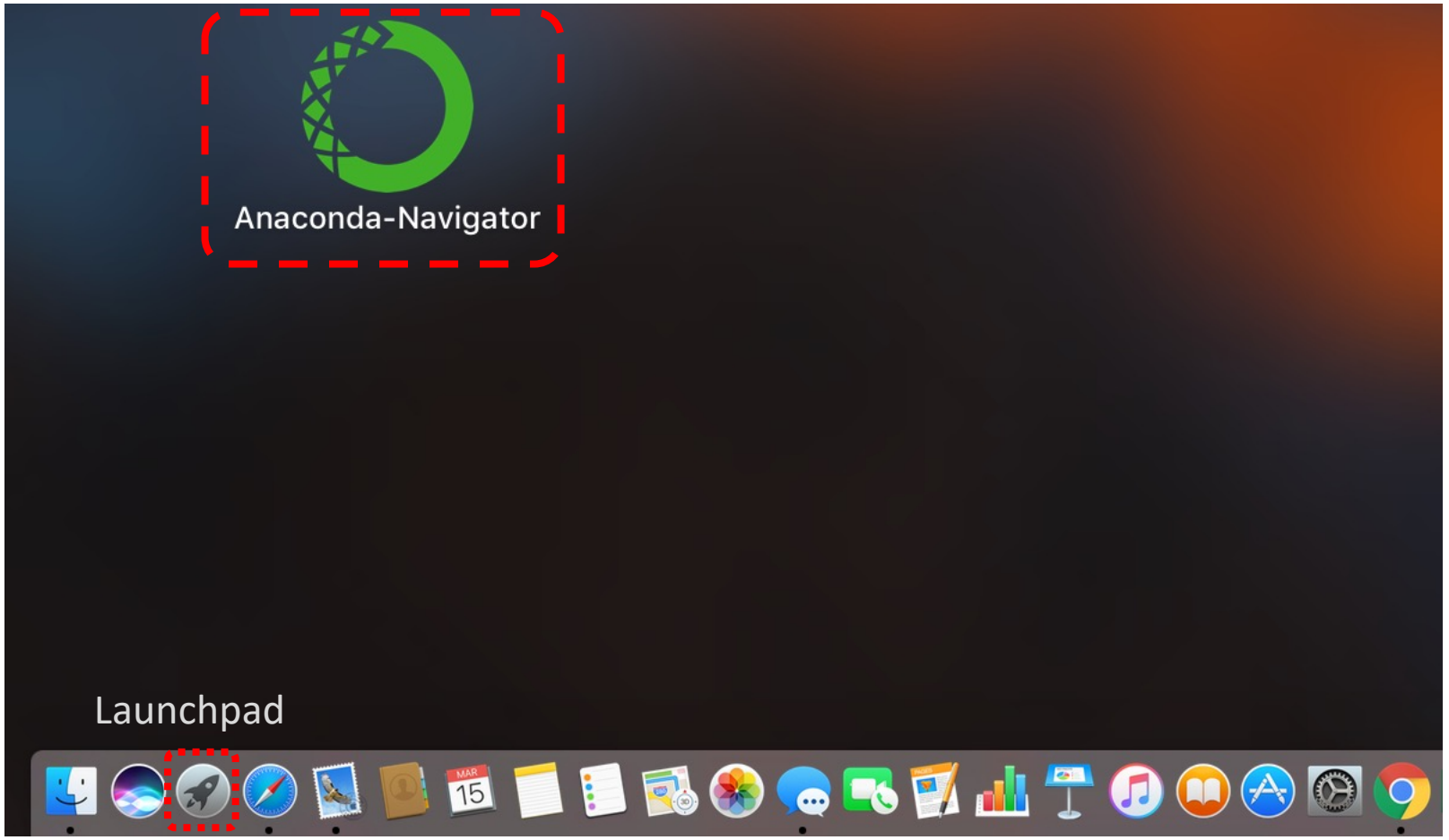


https://www.anaconda.com/download

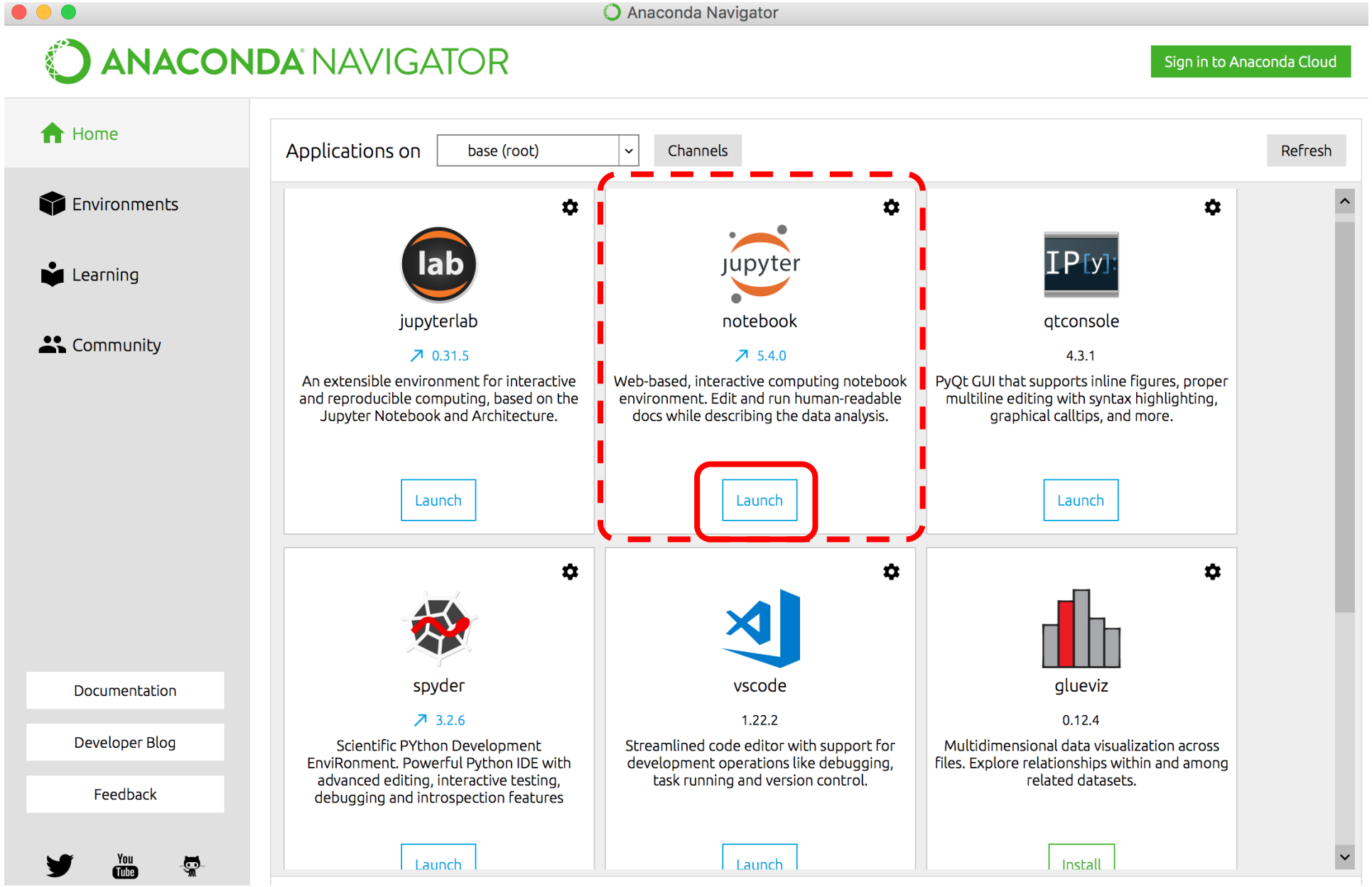
Python

HelloWorld

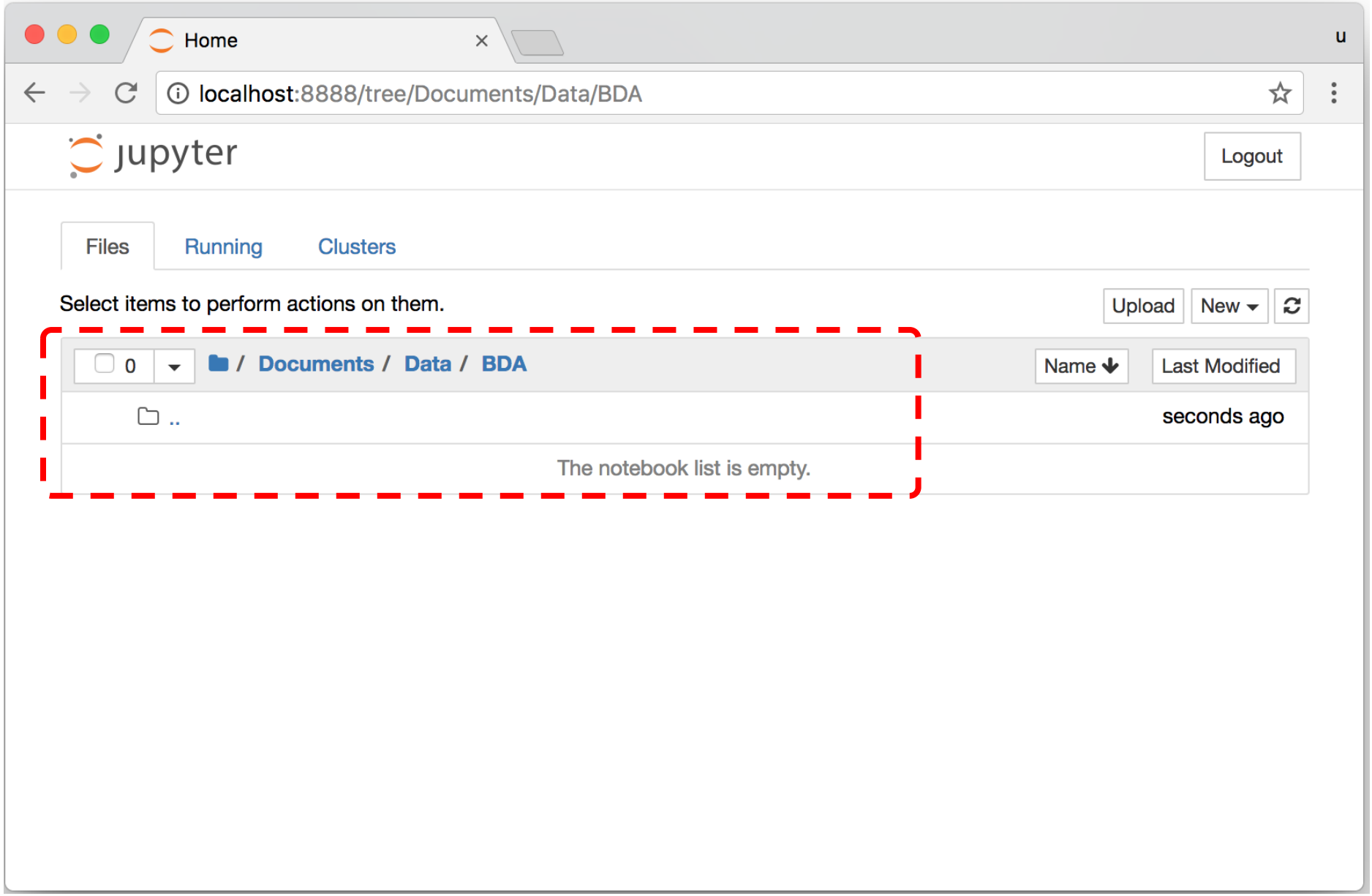
Anaconda-Navigator



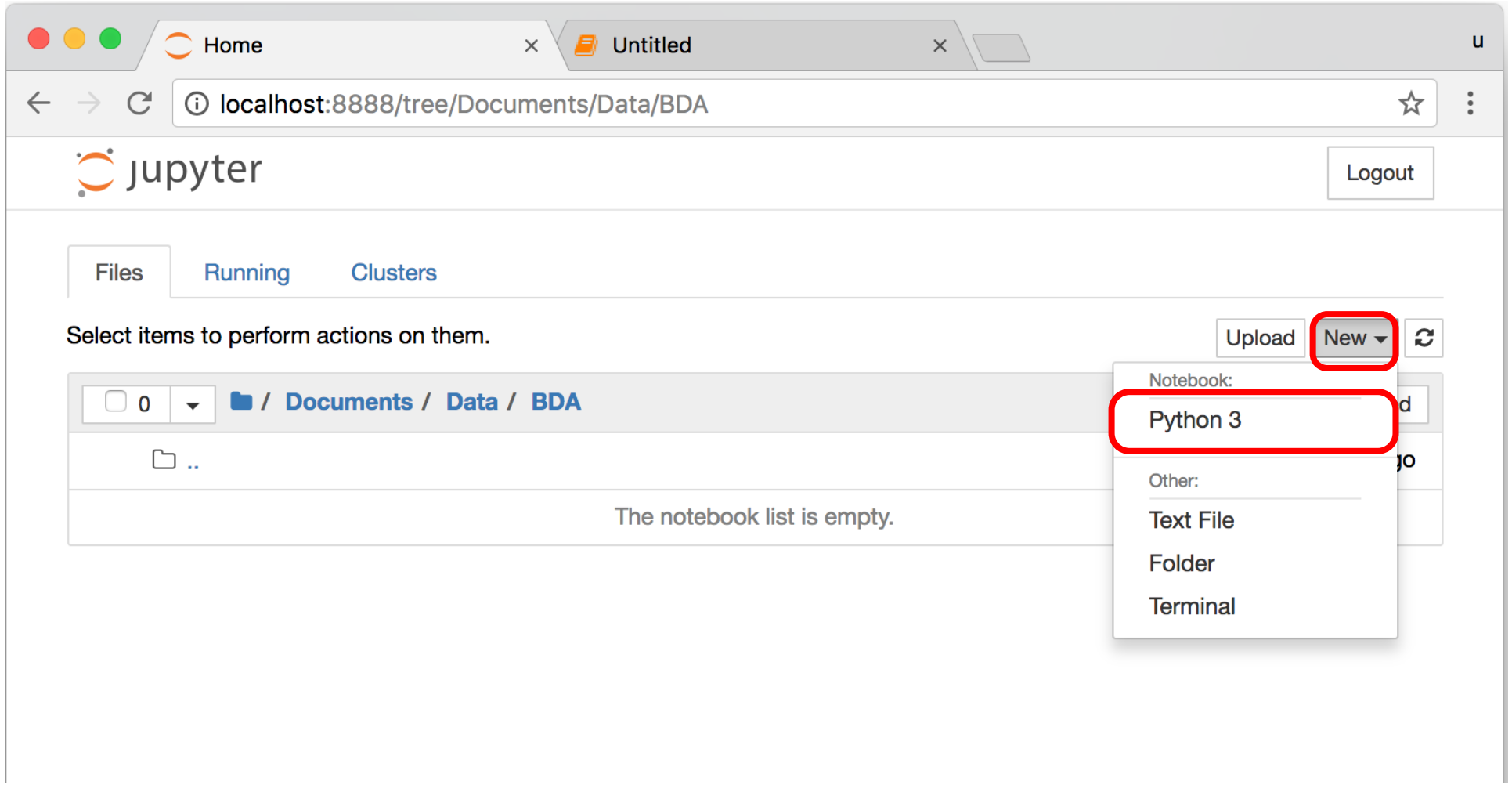
Anaconda Navigator



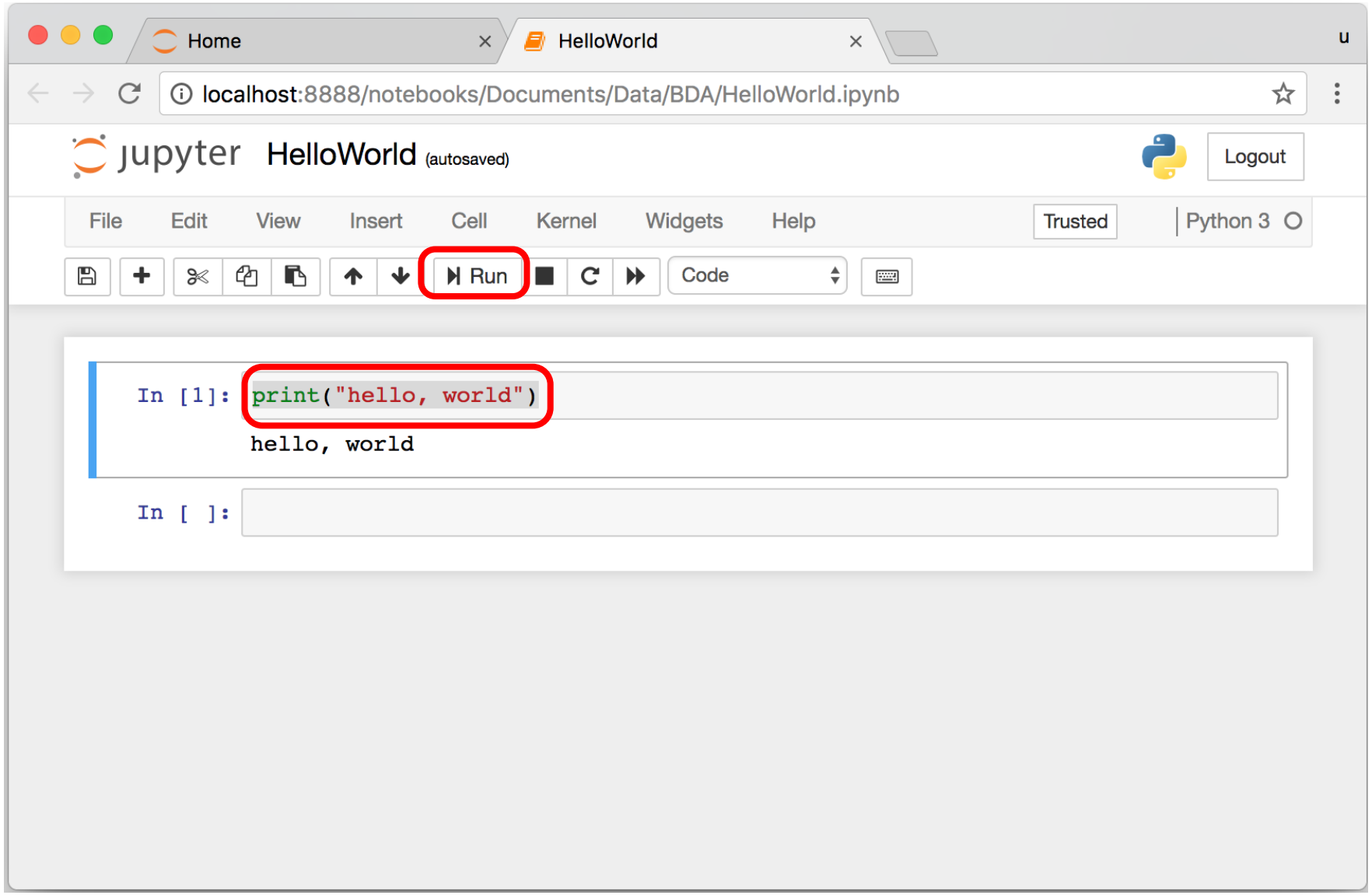
Jupyter Notebook



Jupyter Notebook
New Python 3



print("hello, world")



Source: https://www.python.org/community/logos/

Python

Programming

Foundations of Python Programming

- Python Syntax
  - Python Comments
- Python Variables
- Python Data Types
  - Python Numbers
  - Python Casting
  - Python Strings
- Python Operators
- Python Booleans

Python Hello World
print("Hello World")

```
print("Hello World")
```

Python Syntax

`# comment`

```
# comment
```

Python Syntax

Indentation

the spaces at the beginning of a code line

4 spaces

```
score = 80
if score >=60 :
    print("Pass")
```

Python Variables

```
# Python Variables
x = 2
price = 2.5
word = 'Hello'


word = 'Hello'
word = "Hello"
word = '''Hello'''
```

Python Variables

```
x = 2
y = x + 1
```

python_version()

```
# comment
from platform import python_version
print("Python Version:", python_version())
```

```
Python Version: 3.10.12
```

Python Data Types

```
x = "Hello World"   #str
x = 2               #int
x = 2.5             #float
x = 7j              #complex
```

Python Data Types

```
x = ["apple", "banana", "cherry"] #list
x = ("apple", "banana", "cherry") #tuple
x = range(6) #range
x = {"name" : "Tom", "age" : 20} #dict
x = {"apple", "banana", "cherry"} #set
x = frozenset({"apple", "banana", "cherry"})
#frozenset
```

Python Data Types

```
x = True #bool
x = b"Hello" #bytes
x = bytearray(5) #bytearray
x = memoryview(bytes(5)) #memoryview
x = None #NoneType
```

Python Casting

```
x = str(3) # x will be '3'
y = int(3) # y will be 3
z = float(3) # z will be 3.0
print(x, type(x))
print(y, type(y))
print(z, type(z))
```

```
3 <class 'str'>
3 <class 'int'>
3.0 <class 'float'>
```

Python Numbers

```
x = 2 # int
y = 3.4 # float
z = 7j #complex
print(x, type(x))
print(y, type(y))
print(z, type(z))
```

```
2 <class 'int’>
3.4 <class 'float’>
7j <class 'complex'>
```

Python Arithmetic Operators

```
Operator Name Example
+ Addition 7 + 2 = 9
- Subtraction 7 - 2 = 5
* Multiplication 7 * 2 = 14
/ Division 7 / 2 = 3.5
// Floor division 7 // 2 = 3   (Quotient)
% Modulus 7 % 2 = 1                (Remainder)
** Exponentiation 7 ** 2 = 49
```

Python Basic Operators

```
print('7 + 2 =', 7 + 2)
print('7 - 2 =', 7 - 2)
print('7 * 2 =', 7 * 2)
print('7 / 2 =', 7 / 2)
print('7 // 2 =', 7 // 2)
print('7 % 2 =', 7 % 2)
print('7 ** 2 =', 7 ** 2)
```

```
7 + 2 = 9
7 - 2 = 5
7 * 2 = 14
7 / 2 = 3.5
7 // 2 = 3
7 % 2 = 1
7 ** 2 = 49
```

Python Booleans: True or False

```
# Python Booleans: True or False
print(3 > 2)
print(3 == 2)
print(3 < 2)
```

Python BMI Calculator

```
# BMI Calculator in Python
height_cm = 170
weight_kg = 60
height_m = height_cm/100
BMI = (weight_kg/(height_m**2))

print("Your BMI is: " + str(round(BMI,1)))
```

```
Your BMI is: 20.8
```

Future value of a specified principal amount, rate of interest, and a number of years

Source: https://www.w3resource.com/python-exercises/python-basic-exercise-39.php

How much is your $100 worth after 7 years?

```
# How much is your $100 worth after 7 years?
fv = 100 * 1.1 ** 7
print('fv = ', round(fv, 2))
# output = 194.87
```

```
fv = 194.87
```

Future Value

```
# Future Value
pv = 100
r = 0.1
n = 7
fv = pv * ((1 + (r)) ** n)
print(round(fv, 2))
```

```
194.87
```

Future Value

```
# Future Value
amount = 100
interest = 10 #10% = 0.01 * 10
years = 7

future_value = amount * ((1 + (0.01 * interest)) ** years)
print(round(future_value, 2))
```

```
194.87
```

Python
Data Structures

Python Data Structures

- Python Lists []
- Python Tuples ()
- Python Sets {}
- Python Dictionaries {k:v}

Python Data Structures

```
fruits = ["apple", "banana", "cherry"] #lists []
colors = ("red", "green", "blue") #tuples ()
animals = {'cat', 'dog'} #sets {}
person = {"name" : "Tom", "age" : 20} #dictionaries {}
```

Python Data Types

```
x = ["apple", "banana", "cherry"] #list
x = ("apple", "banana", "cherry") #tuple
x = {"name" : "Tom", "age" : 20} #dict
x = {"apple", "banana", "cherry"} #set
```

Python Collections

- There are four collection data types in the Python programming language
- List []
  - a collection which is ordered and changeable. Allows duplicate members.
- Tuple ()
  - a collection which is ordered and unchangeable. Allows duplicate members.
- Set {}
  - a collection which is unordered, unchangeable, and unindexed. No duplicate members.
- Dictionary {k:v}
  - a collection which is ordered and changeable. No duplicate members.

Python Dictionaries {k:v}

- **As of Python version 3.7, dictionaries are ordered.**
- **In Python 3.6 and earlier, dictionaries are unordered.**

Lists []

```
x = [60, 70, 80, 90]
print(len(x))
print(x[0])
print(x[1])
print(x[-1])
```

```
4
60
70
90
```

Lists []

- len(): how many items
- type(): data type
- list() constructor: creating a new list

Python List Methods

Method	Description
append()	Adds an element at the end of the list
clear()	Removes all the elements from the list
copy()	Returns a copy of the list
count()	Returns the number of elements with the specified value
extend()	Add the elements of a list (or any iterable), to the end of the current list
index()	Returns the index of the first element with the specified value
insert()	Adds an element at the specified position
pop()	Removes the element at the specified position
remove()	Removes the item with the specified value
reverse()	Reverses the order of the list
sort()	Sorts the list

https://www.w3schools.com/python/python_lists_methods.asp

Tuples ()

A tuple in Python is a collection that cannot be modified.
A tuple is defined using parenthesis.

```
x = (10, 20, 30, 40, 50)
print(x[0])
print(x[1])
print(x[2])
print(x[-1])
```

```
10
20
30
50
```

Source: http://pythonprogramminglanguage.com/tuples/

Sets {}

```
animals = {'cat', 'dog'}
print('cat' in animals)     True
print('fish' in animals)    False
animals.add('fish')
print('fish' in animals)    True
print(len(animals))         3
animals.add('cat')
print(len(animals))         3
animals.remove('cat')
print(len(animals))         2
```

Source: http://cs231n.github.io/python-numpy-tutorial/

Dictionary {key : value}

Python Dictionary

Key → Value

'EN' → 'English'

'FR' → 'French'

```
k = { 'EN':'English', 'FR':'French' }
print(k['EN'])
```

```
English
```

Source: http://pythonprogramminglanguage.com/dictionary/

Python Data Structures

```
fruits = ["apple", "banana", "cherry"] #lists []
colors = ("red", "green", "blue") #tuples ()
animals = {'cat', 'dog'} #sets {}
person = {"name" : "Tom", "age" : 20} #dictionaries {}
```

https://tinyurl.com/aintpupython101

Python Control Logic and Loops

Python Control Logic and Loops

- Python if else
  - if elif else
  - Booleans: True, False
  - Operators: ==, !=, >, <, >=, <=, and, or, not
- Python for Loops
  - for
- Python while Loops
  - While
    - break
    - continue

Python if...else

- Python if...else
  - if elif else
  - Booleans: True, False
  - Operators: ==, !=, >, <, >=, <=, and, or, not

Python Conditions and If statements

- Python supports the usual logical conditions from mathematics:
  - Equals: a == b
  - Not Equals: a != b
  - Less than: a < b
  - Less than or equal to: a <= b
  - Greater than: a > b
  - Greater than or equal to: a >= b

Python Comparison Operators

Operator	Name	Example
==	Equal	x == y
!=	Not equal	x != y
>	Greater than	x > y
<	Less than	x < y
>=	Greater than or equal to	x >= y
<=	Less than or equal to	x <= y

Source: https://www.w3schools.com/python/python_operators.asp

Python Logical Operators

Operator	Description	Example
and	Returns True if both statements are true	x < 5 and x < 10
or	Returns True if one of the statements is true	x < 5 or x < 4
not	Reverse the result, returns False if the result is true	not(x < 5 and x < 10)

Source: https://www.w3schools.com/python/python_operators.asp

Python if

```
# Python if
score = 80
if score >=60 :
   print("Pass")
```

Python if else

```
# Python if else
score = 80
if score >=60 :
    print("Pass")
else:
    print("Fail")
```

Python if elif else

```
score = 95
if score >= 90 :
    print("A")
elif score >=60 :
    print("Pass")
else:
    print("Fail")
```

Python if elif else

```
# Python if elif else
score = 90
grade = ""
if score >=90:
    grade = "A"
elif score >= 80:
    grade = "B"
elif score >= 70:
    grade = "C"
elif score >= 60:
    grade = "D"
else:
    grade = "E"
print(grade)
```

Python for Loops

```
for i in range(1,6):
    print(i)
```

```
1
2
3
4
5
```

Python for loops

```
# for loops
for i in range(1,10):
    for j in range(1,10):
    print(i, ' * ' , j , ' = ', i*j)
```

Python while Loops

- while
  - break
  - continue

Python while loops

```
# while loops
age = 10
while age < 20:
    print(age)
    age = age + 1
```

https://tinyurl.com/aintpupython101

Python Functions and Modules

Python Functions and Modules

- Python Functions
  - def myfunction():
- Python Classes/Objects
  - class MyClass:
- Python Modules
  - mymodule.py
  - import mymodule

Python Functions

Python Functions

- A function is a block of code which only runs when it is called.
- You can pass data, known as parameters, into a function.
- A function can return data as a result.
- Creating a Function
  - In Python a function is defined using the def keyword:

Python Function def

```
# Python Function def
# indentation for blocks. four spaces
def getfv(pv, r, n):
    fv = pv * ((1 + (r)) ** n)
    return fv
fv = getfv(100, 0.1, 7)
print(round(fv, 2))
```

```
194.87
```

Future value of a specified principal amount, rate of interest, and a number of years

Source: https://www.w3resource.com/python-exercises/python-basic-exercise-39.php

How much is your $100 worth after 7 years?

```
# How much is your $100 worth after 7 years?
fv = 100 * 1.1 ** 7
print('fv = ', round(fv, 2))
# output = 194.87
```

```
fv = 194.87
```

Future Value

```
# Future Value
pv = 100
r = 0.1
n = 7
fv = pv * ((1 + (r)) ** n)
print(round(fv, 2))
```

```
194.87
```

Future Value

```
# Future Value
amount = 100
interest = 10 #10% = 0.01 * 10
years = 7

future_value = amount * ((1 + (0.01 * interest)) ** years)
print(round(future_value, 2))
```

```
194.87
```

Python Function

def getfv() define get future value function

```
# Python Function def
# indentation for blocks. four spaces
def getfv(pv, r, n):
    fv = pv * ((1 + (r)) ** n)
    return fv
fv = getfv(100, 0.1, 7)
print(round(fv, 2))
```

```
194.87
```

Python Classes/Objects

```
class MyClass:
```

Python Classes/Objects

- Python is an object oriented programming language.
- Almost everything in Python is an object, with its properties and methods.
- A Class is like an object constructor, or a "blueprint" for creating objects.
- Create a Class:
  - To create a class, use the keyword class:

Python Classes/Objects

class MyClass:

```
# Python class
class MyClass:
x = 5


c1 = MyClass()
print(c1.x)
```

https://www.w3schools.com/python/python_classes.asp

Python Classes/Objects

```
class Person:
    def __init__(self, name, age):
    self.name = name
    self.age = age

p1 = Person("Alan", 20)

print(p1.name)
print(p1.age)
```

```
Alan
20
```

Python Classes/Objects

```
class Person:
    def __init__(self, name, age):
    self.name = name
    self.age = age

    def myfunc(self):
        print("Hello my name is " + self.name)

p1 = Person("Alan", 20)
p1.myfunc()
```

Python Classes/Objects

```
class Person:
    def __init__(self, name, age):
    self.name = name
    self.age = age

    def myfunc(self):
        print("Hello my name is " + self.name)

p1 = Person("Alan", 20)
p1.myfunc()
print(p1.name)
print(p1.age)
```

```
Hello my name is Alan
Alan
20
```

Python Classes and Obects

```
class Vehicle:
    name = ""
    kind = "car"
    color = ""
    value = 100.00
    def description(self):
        desc_str = "%s is a %s %s worth $%.2f." %
(self.name, self.color, self.kind, self.value)
        return desc_str
```

Python Classes and Objects

```
car1 = Vehicle()
car1.name = "Fer"
car1.color = "red"
car1.kind = "convertible"
car1.value = 60000.00

car2 = Vehicle()
car2.name = "Jump"
car2.color = "blue"
car2.kind = "van"
car2.value = 10000.00

print(car1.description())
print(car1.name)
print(car2.description())
print(car2.name)
```

```
class Vehicle:
      name = ""
      kind = "car"
      color = ""
      value = 100.00
      def description(self):
            desc_str = "%s is a %s %s
worth $%.2f." % (self.name, self.color,
self.kind, self.value)
            return desc_str
```

```
Fer is a red convertible worth $60000.00.
Fer
Jump is a blue van worth $10000.00.
Jump
```

https://www.learnpython.org/en/Classes_and_Objects

Python Modules

Python Modules

- Consider a module to be the same as a code library.
- A file containing a set of functions you want to include in your application.
- Create a Module
  - To create a module just save the code you want in a file with the file extension .py:
- Use a Module
  - import module

Python Modules

```
# mymodule.py
def greeting(name):
    print("Hello, " + name)
```

```
import mymodule
mymodule.greeting("Alan")
```

```
mymodule.py
def greeting(name):
     print("Hello, " + name)
```

https://tinyurl.com/aintpupython101

Python File Input / Output

```
# Python File Input / Output
with open('myfile.txt', 'w') as file:
    file.write('Hello World\nThis is Python File Input Output')

with open('myfile.txt', 'r') as file:
    text = file.read()
    print(text)
```

```
Hello World This is Python File Input Output
```

Python File Input / Output

```
# Python File Input / Output
filename = 'mymodule.py'
with open(filename, 'w') as file:
     text = '''def greeting(name):
     print("Hello, " + name)
     '''
     file.write(text)

with open(filename, 'r') as file:
     text = file.read()
print(filename)
print(text)
```

```
mymodule.py
def greeting(name):
     print("Hello, " + name)
```

https://tinyurl.com/aintpupython101

Python Modules

import mymodule

```
# mymodule.py
def greeting(name):
    print("Hello, " + name)
```

```
import mymodule
mymodule.greeting("Alan")
```

```
Hello, Alan
```

Python `main()` function

```
#Python main() function
def main():
    print("Hello World!")

if __name__ == "__main__":
    main()
```

Files
and
Exception Handling

Files and Exception Handling

- Python Files (File Handling)
  - open()
  - f = open("myfile.txt")
- Python Try Except (Exception Handling)
  - try:
    except:
    else:
    finally:

File Handling

- The key function for working with files in Python is the open() function.
- The open() function takes two parameters; filename, and mode.
- There are four different methods (modes) for opening a file:
  - "r" - Read - Default value. Opens a file for reading, error if the file does not exist
  - "a" - Append - Opens a file for appending, creates the file if it does not exist
  - "w" - Write - Opens a file for writing, creates the file if it does not exist
  - "x" - Create - Creates the specified file, returns an error if the file exists

Python Files (File Handling)

```
f = open("myfile.txt", "w")
f.write("Hello World")
f.close()

f = open("myfile.txt", "r")
text = f.read()
print(text)
f.close()
```

```
Hello World
```

Python Files (File Handling)

```
# Python File Input / Output
with open('myfile.txt', 'w') as file:
    file.write('Hello World')

with open('myfile.txt', 'r') as file:
    text = file.read()
print(text)
```

```
Hello World
```

Python Files

```
# Python File Input / Output
with open('myfile.txt', 'w') as file:
    file.write('Hello World\nPython File IO')

with open('myfile.txt', 'r') as file:
    text = file.read()
print(text)
```

```
Hello World
Python File IO
```

https://tinyurl.com/aintpupython101

Python Files

```
# Python File Input / Output
with open('myfile.txt', 'a+') as file:
    file.write('\n' + 'New line')

with open('myfile.txt', 'r') as file:
    text = file.read()
print(text)
```

```
Hello World
Python File IO
New line
```

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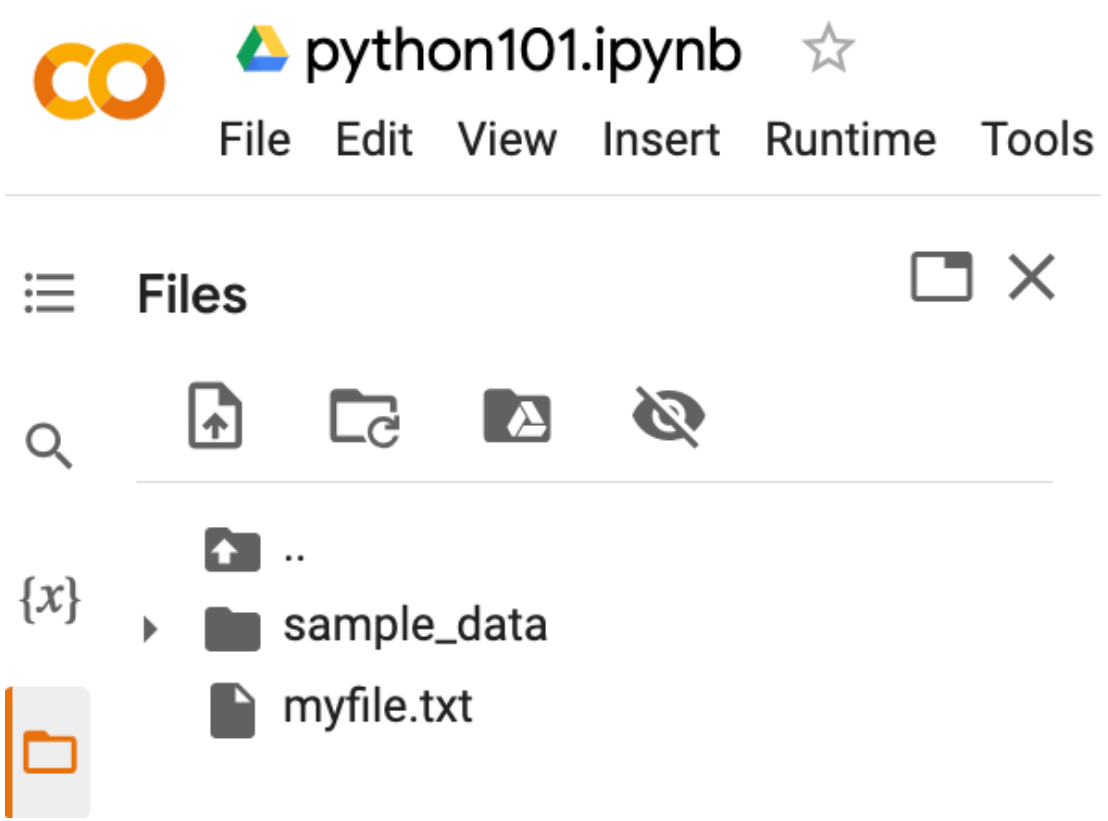
Python Files

```
# !ls list files
!ls
```

```
myfile.txt sample_data
```



https://tinyurl.com/aintpupython101

Python OS, IO, files, and Google Drive

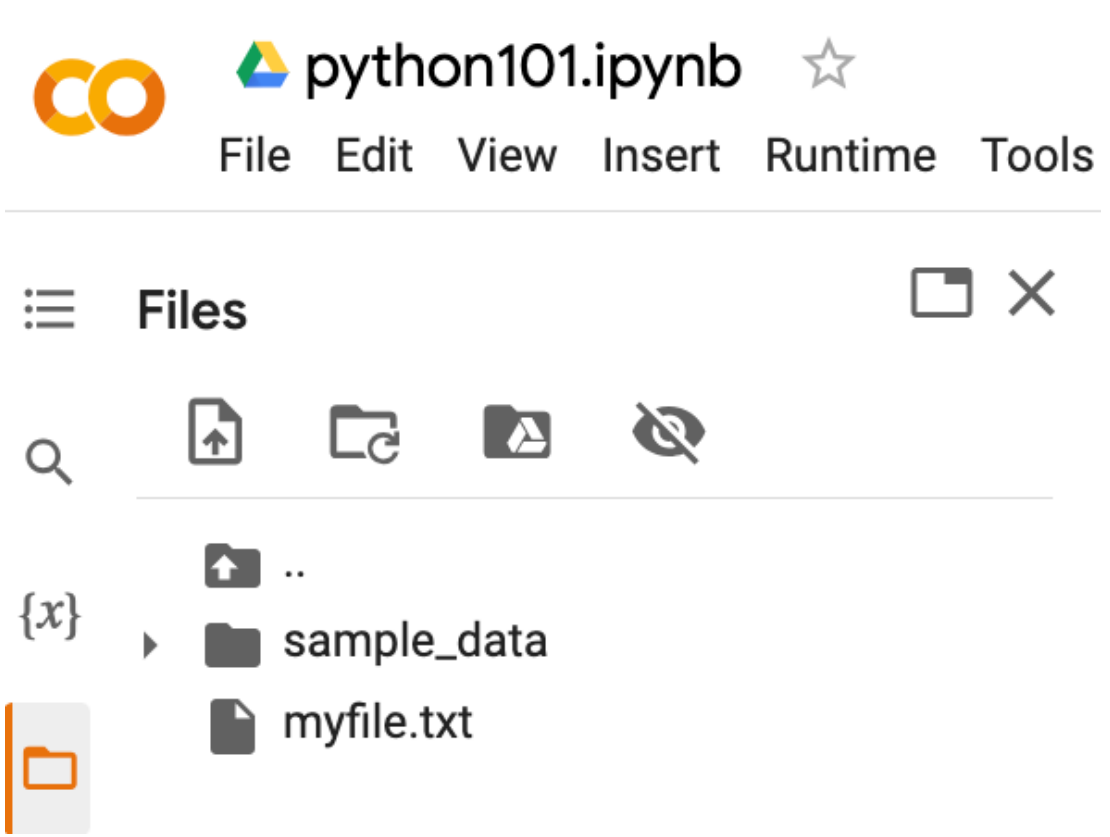
```
import os


cwd = os.getcwd()
print(cwd)
```

```
/content
```

os.listdir()

```
os.listdir(cwd)
```

```
['.config',
'myfile.txt',
'sample_data']
```

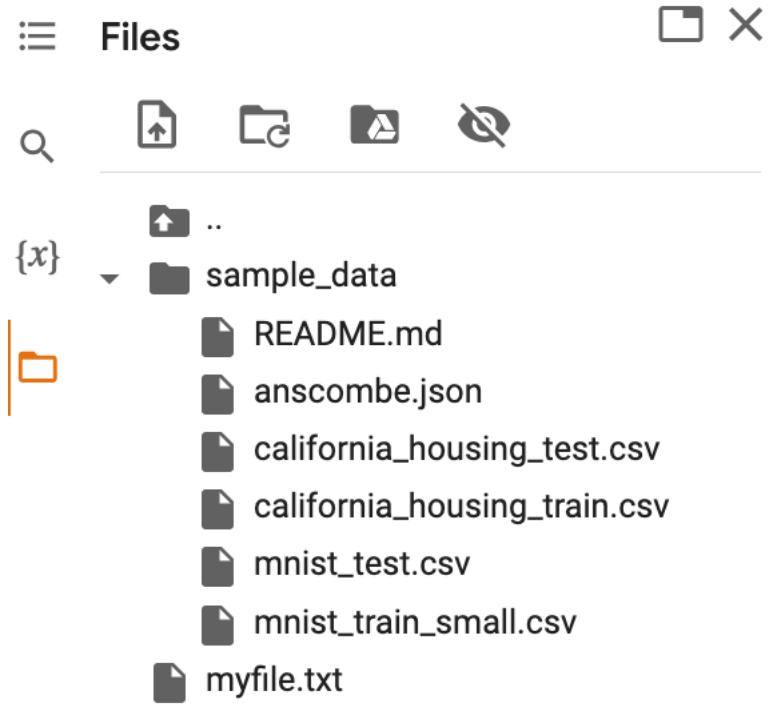


https://tinyurl.com/aintpupython101

os.path.join()

```
path = os.path.join(cwd, 'sample_data')
print(path)
os.listdir(path)
```

```
/content/sample_data
['README.md', 'anscombe.json',
'mnist_train_small.csv',
'mnist_test.csv',
'california_housing_train.csv',
'california_housing_test.csv']
```



https://tinyurl.com/aintpupython101

from google.colab import files

```
from google.colab import files

with open('io_file_myday.txt', 'w') as f:
    f.write('Google Colab File Write Text some content Myday')

import time
time.sleep(1) # time sleep 1 second

files.download('io_file_myday.txt')
print('downloaded')
```

```
downloaded
```

Python Files

```
from google.colab import files
uploaded = files.upload()

for fn in uploaded.keys():
    print('User uploaded file "{name}"
with length {length} bytes'.format(
name=fn, length=len(uploaded[fn])))
```

User uploaded file "io_file_myday2.txt" with length 47 bytes

os.remove()

```
import os
if os.path.exists("myfile.txt"):
    os.remove("myfile.txt")
    print("myfile.txt removed")
else:
    print("The file does not exist")
```

```
myfile.txt removed
```

os.mkdir("myfolder1")
os.rmdir("myfolder1")

```
import os
os.listdir()
os.mkdir("myfolder1")
os.listdir()
os.rmdir("myfolder1")
os.listdir()
```

Python Try Except

- The try block lets you test a block of code for errors.
- The except block lets you handle the error.
- The else block lets you execute code when there is no error.
- The finally block lets you execute code, regardless of the result of the try- and except blocks.

Python Try Except (Exception Handling)

try: except:

```
#Python try except
try:
    print(x)
except:
    print("Exception Error")
```

Python try: except: finally:

```
#Python try except finally
try:
    print("Hello")
except:
    print("Exception Error")
finally:
    print("Finally process")
```

```
Hello
Finally process
```

Python try: except: else:

```
#Python try except else
try:
    print("Hello")
except:
    print("Exception Error")
else:
    print("No exception")
```

```
Hello
No exception
```

Python try: except: else: finally:

```
try:
    print("Hello")
except:
    print("Exception Error")
else:
    print("No exception")
finally:
    print("Finally process")
```

```
Hello
No exception
Finally process
```

Python try: except: else: finally:

```
try:
    price = float(input("Enter the price of the stock (e.g. 10):"))
    shares = int(input("Enter the number of shares (e.g. 2):"))
    total = price * shares
except Exception as e:
    print("Exception error:", str(e))
else:
    print("The total value of the shares is:", total)
finally:
    print("Thank you.")
```

```
Enter the price of the stock (e.g. 10):10
Enter the number of shares (e.g. 2):2
The total value of the shares is: 20.0
Thank you.
```

Python try: except: else: finally:

```
try:
    file = open("myfile.txt")
    file.write("Python write file")
    print("file saved")
except:
    print("Exception file Error")
```

```
Exception file Error
```

Python try: except: else: finally:

```
try:
    file = open("myfile.txt")
    file.write("Python write file")
    print("file saved")
except:
    print("Exception file Error")
finally:
    file.close()
    print("Finally process")
```

```
Exception file Error
Finally process
```

Python try: except: else: finally:

```
try:
    file = open("myfile.txt", 'w')
    file.write("Python write file")
    print("file saved")
except:
    print("Exception file Error")
finally:
    file.close()
    print("Finally process")
```

```
file saved
Finally process
```

Summary

- Python Functions: def myfunction():
- Python Classes/Objects: class MyClass:
- Python Modules: import mymodule
- Python Files (File Handling): open()
- Python Try Except (Exception Handling):
  - try: except: else: finally:

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