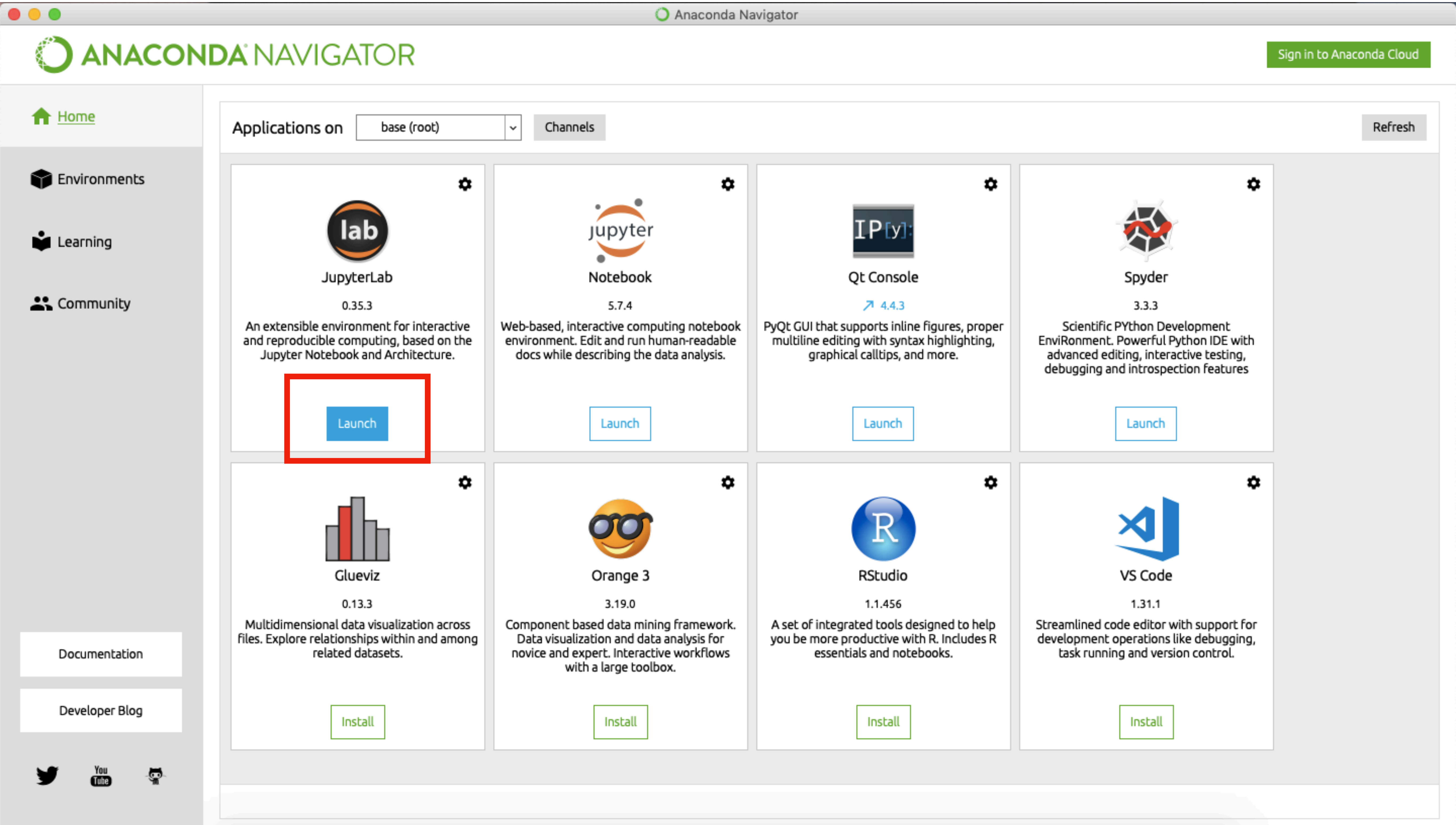
PySpark Test

Jungwon Seo

Open Anaconda navigator and Launch Jupiter lab



JupyterLab
0.35.3
An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture.
Launch

Notebook
5.7.4
Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis.
Launch

Qt Console
↗ 4.4.3
PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more.
Launch

Spyder
3.3.3
Scientific PYthon Development EnviRonment. Powerful Python IDE with advanced editing, interactive testing, debugging and introspection features
Launch

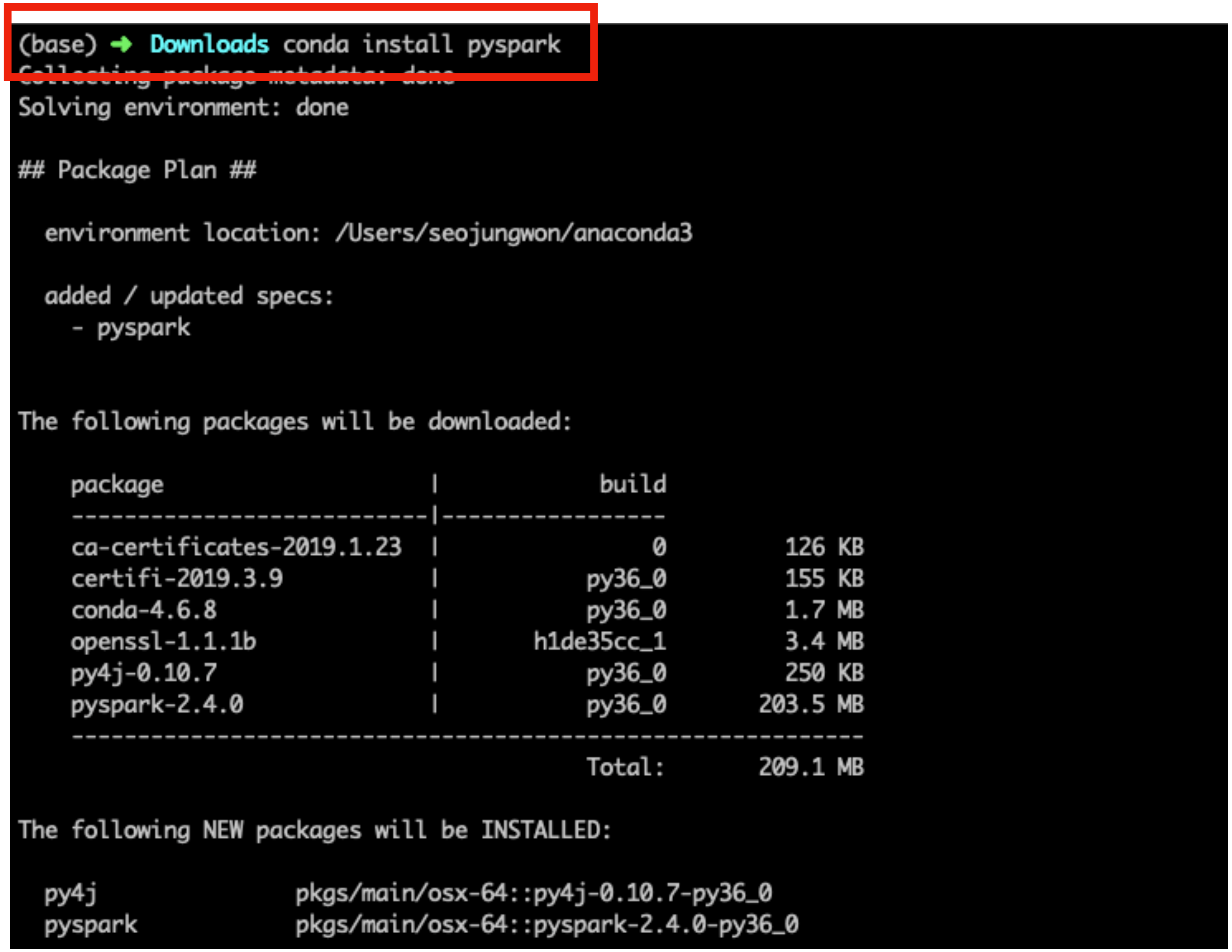
Glueviz
0.13.3
Multidimensional data visualization across files. Explore relationships within and among related datasets.
Install

Orange 3
3.19.0
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

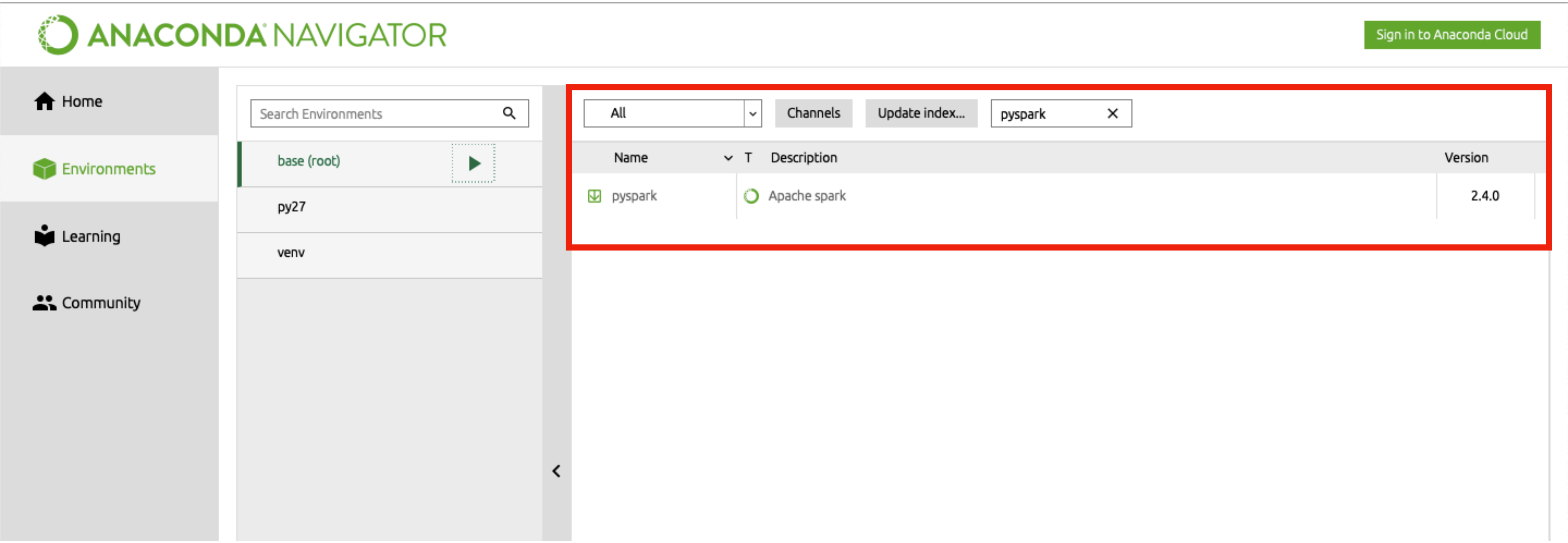
VS Code
1.31.1
Streamlined code editor with support for development operations like debugging, task running and version control.
Install

If you haven’t installed pyspark, you can install using “conda install”



```
(base) ➜ Downloads conda install pyspark
Collecting package metadata: done
Solving environment: done

## Package Plan ##

  environment location: /Users/seojungwon/anaconda3

  added / updated specs:
    - pyspark


The following packages will be downloaded:

    package                    |            build
    ---------------------------|-----------------
    ca-certificates-2019.1.23  |                0         126 KB
    certifi-2019.3.9           |           py36_0         155 KB
    conda-4.6.8                |           py36_0         1.7 MB
    openssl-1.1.1b             |       h1de35cc_1         3.4 MB
    py4j-0.10.7                |           py36_0         250 KB
    pyspark-2.4.0              |           py36_0       203.5 MB
    ------------------------------------------------------------
                                           Total:       209.1 MB

The following NEW packages will be INSTALLED:

  py4j               pkgs/main/osx-64::py4j-0.10.7-py36_0
  pyspark            pkgs/main/osx-64::pyspark-2.4.0-py36_0
```

Or from Anaconda navigator

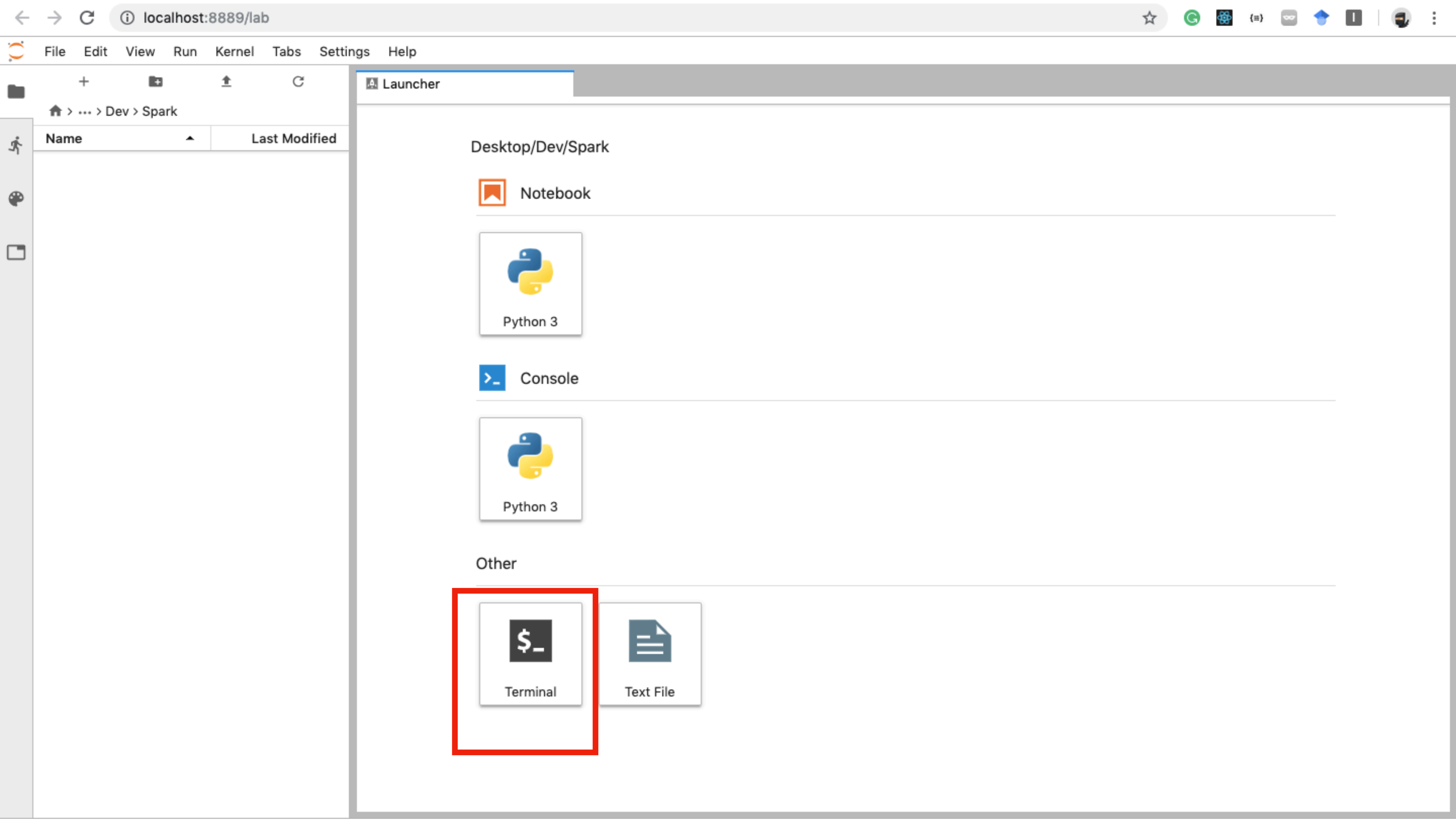


All

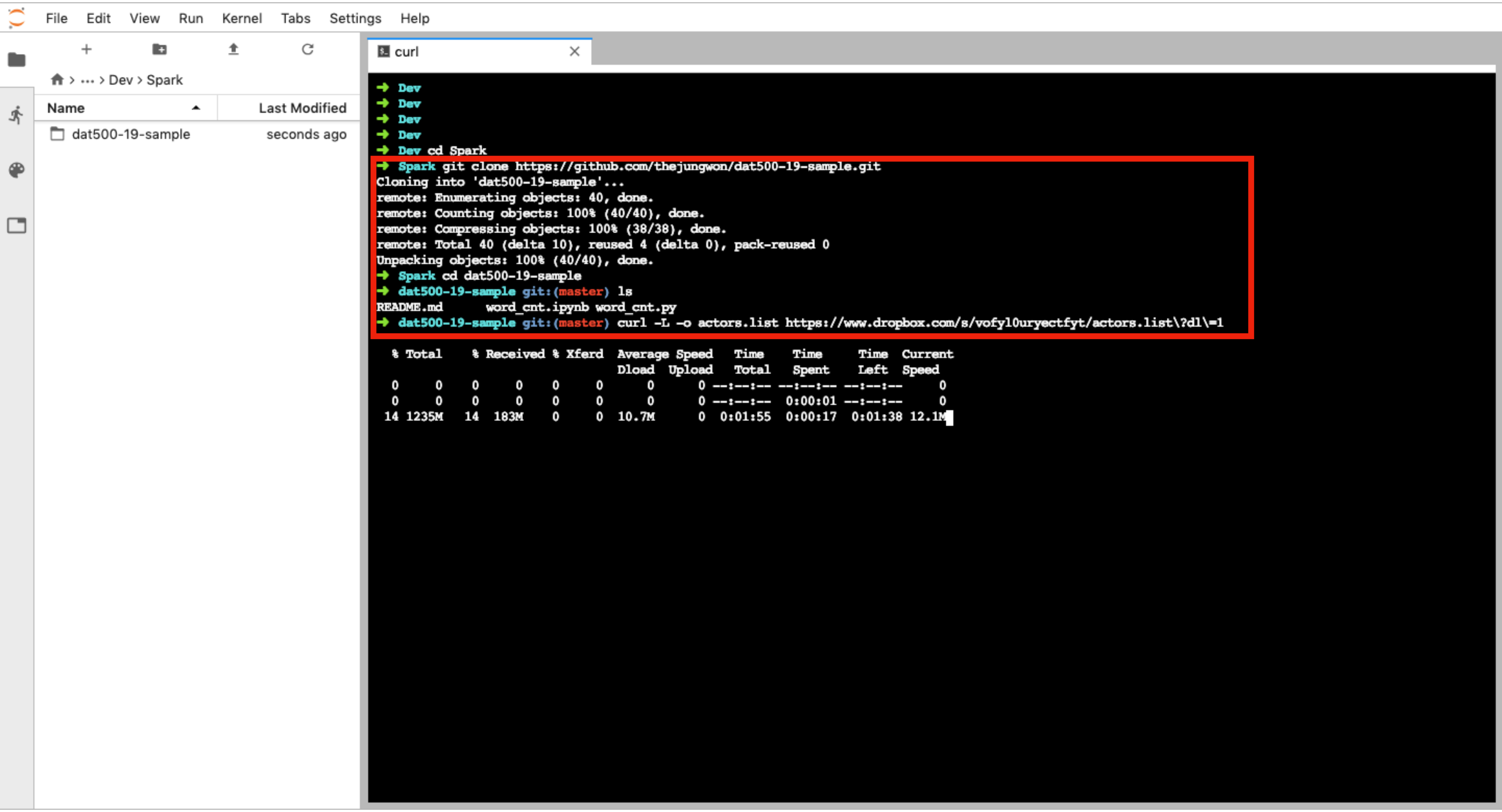
pyspark

Name	T	Description	Version
☑ pyspark		○ Apache spark	2.4.0

You will see the familiar interface.
Let’s open terminal.

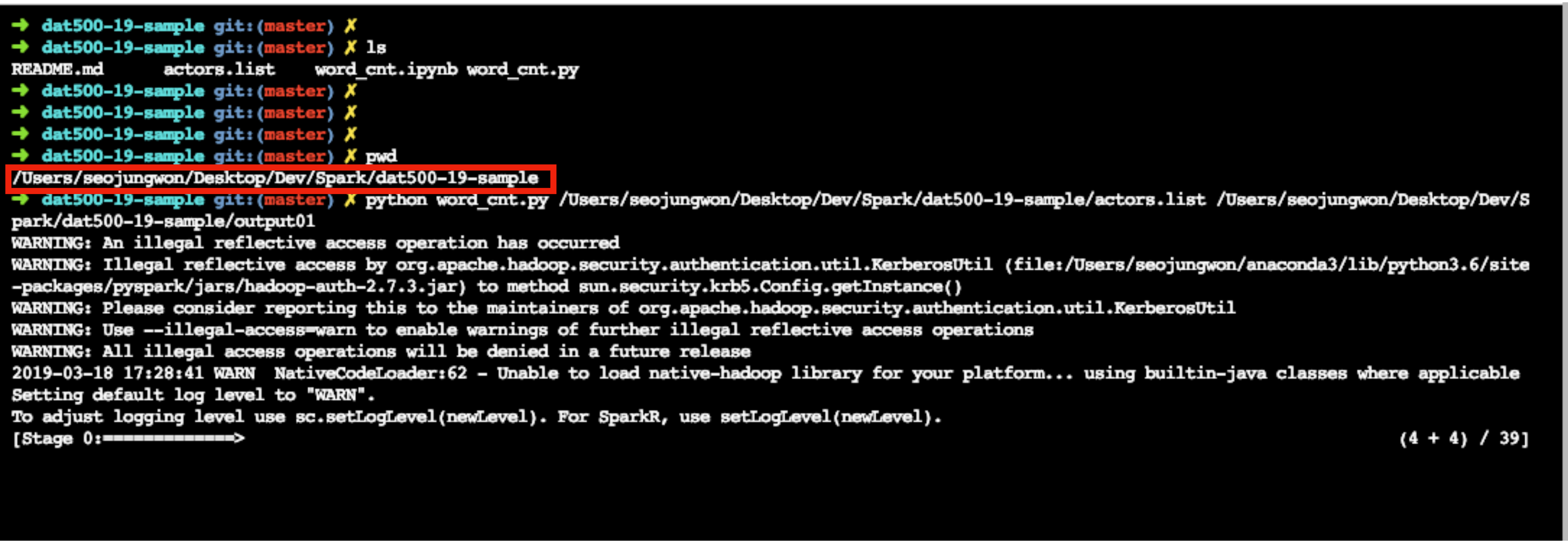


Follow the GitHub instruction.



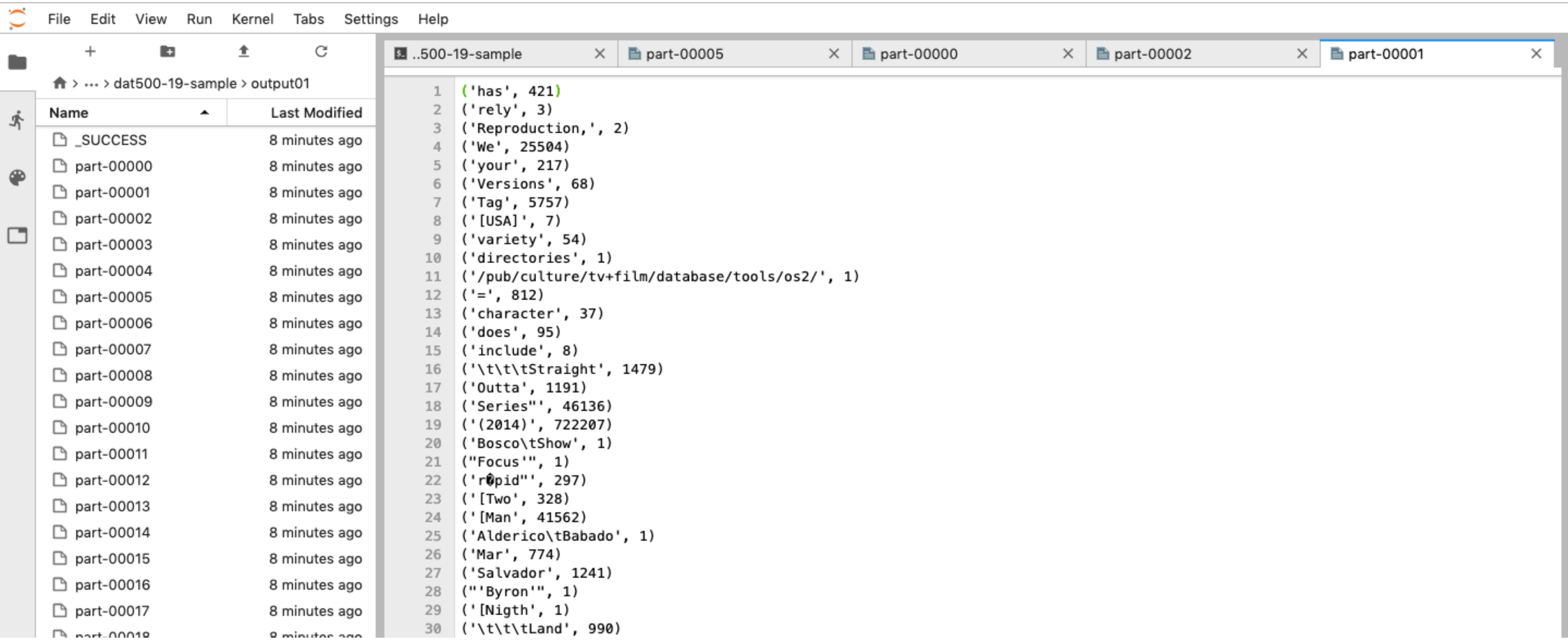
```
➜ Dev
➜ Dev
➜ Dev
➜ Dev
➜ Dev cd Spark
➜ Spark git clone https://github.com/thejungwon/dat500-19-sample.git
Cloning into 'dat500-19-sample'...
remote: Enumerating objects: 40, done.
remote: Counting objects: 100% (40/40), done.
remote: Compressing objects: 100% (38/38), done.
remote: Total 40 (delta 10), reused 4 (delta 0), pack-reused 0
Unpacking objects: 100% (40/40), done.
➜ Spark cd dat500-19-sample
➜ dat500-19-sample git:(master) ls
README.md       word_cnt.ipynb word_cnt.py
➜ dat500-19-sample git:(master) curl -L -o actors.list https://www.dropbox.com/s/vofyl0uryectfyt/actors.list\?dl\=1

  % Total    % Received % Xferd  Average Speed   Time    Time     Time  Current
                                 Dload  Upload   Total   Spent    Left  Speed
  0     0    0     0    0     0      0      0 --:--:-- --:--:-- --:--:--     0
  0     0    0     0    0     0      0      0 --:--:--  0:00:01 --:--:--     0
 14 1235M   14  183M    0     0  10.7M      0  0:01:55  0:00:17  0:01:38 12.1M
```

Just remember to give the absolute path



```
➜  dat500-19-sample git:(master) ✗
➜  dat500-19-sample git:(master) ✗ ls
README.md       actors.list     word_cnt.ipynb word_cnt.py
➜  dat500-19-sample git:(master) ✗
➜  dat500-19-sample git:(master) ✗
➜  dat500-19-sample git:(master) ✗
➜  dat500-19-sample git:(master) ✗ pwd
/Users/seojungwon/Desktop/Dev/Spark/dat500-19-sample
➜  dat500-19-sample git:(master) ✗ python word_cnt.py /Users/seojungwon/Desktop/Dev/Spark/dat500-19-sample/actors.list /Users/seojungwon/Desktop/Dev/S
park/dat500-19-sample/output01
WARNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by org.apache.hadoop.security.authentication.util.KerberosUtil (file:/Users/seojungwon/anaconda3/lib/python3.6/site
-packages/pyspark/jars/hadoop-auth-2.7.3.jar) to method sun.security.krb5.Config.getInstance()
WARNING: Please consider reporting this to the maintainers of org.apache.hadoop.security.authentication.util.KerberosUtil
WARNING: Use --illegal-access=warn to enable warnings of further illegal reflective access operations
WARNING: All illegal access operations will be denied in a future release
2019-03-18 17:28:41 WARN  NativeCodeLoader:62 - Unable to load native-hadoop library for your platform... using builtin-java classes where applicable
Setting default log level to "WARN".
To adjust logging level use sc.setLogLevel(newLevel). For SparkR, use setLogLevel(newLevel).
[Stage 0:==============>                                                                                                                    (4 + 4) / 39]
```

Check the result



› ... › dat500-19-sample › output01

Name	Last Modified
_SUCCESS	8 minutes ago
part-00000	8 minutes ago
part-00001	8 minutes ago
part-00002	8 minutes ago
part-00003	8 minutes ago
part-00004	8 minutes ago
part-00005	8 minutes ago
part-00006	8 minutes ago
part-00007	8 minutes ago
part-00008	8 minutes ago
part-00009	8 minutes ago
part-00010	8 minutes ago
part-00011	8 minutes ago
part-00012	8 minutes ago
part-00013	8 minutes ago
part-00014	8 minutes ago
part-00015	8 minutes ago
part-00016	8 minutes ago
part-00017	8 minutes ago
part-00018	8 minutes ago

```
('has', 421)
('rely', 3)
('Reproduction,', 2)
('We', 25504)
('your', 217)
('Versions', 68)
('Tag', 5757)
('[USA]', 7)
('variety', 54)
('directories', 1)
('/pub/culture/tv+film/database/tools/os2/', 1)
('=', 812)
('character', 37)
('does', 95)
('include', 8)
('\t\t\tStraight', 1479)
('Outta', 1191)
('Series"', 46136)
('(2014)', 722207)
('Bosco\tShow', 1)
("Focus'", 1)
('r�pid"', 297)
('[Two', 328)
('[Man', 41562)
('Alderico\tBabado', 1)
('Mar', 774)
('Salvador', 1241)
("'Byron'", 1)
('[Nigth', 1)
('\t\t\tLand', 990)
```

Good luck!