

learn-python

Abbas Yazdanmehr

`abbas.yazdanmehr1@gmail.com`

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1 Python Basics

1.1 Run Python App



Run Python file and continue file in scripting space

```
$ python -i <file_name>.py

----- ex -----
D:\learn\learn-python\doc>python -i main.py
code output: 21
>>> i
21
>>> i**2
441
>>> exit()
```



Save app output as a .txt file in cmd

```
$ Python <app_name> > <output_file_name>.txt

----- ex -----
D:\learn\learn-python\doc>python main.py > output.txt

D:\learn\learn-python\doc>more output.txt
code output: 21
```



Pay attention to Python's operator priority!

```
>>> 3 + 5 % 4 == 0
False
>>> (3 + 5) % 4 == 0
True
```

1.2 Python Virtual Environment



Create - Activate - Deactivate in cmd

```
-- create
$ python -m venv <virtual_environment_name>

-- activate
$ <virtual_environment_name>\Scripts\activate.bat

-- deactivate
$ deactivate

----- ex -----
```

```

D:\dir\b
code
learn
library

D:\python -m venv prjenv

D:\dir\b
code
learn
library
prjenv

D:\prjenv\Scripts\activate

(prjenv) D:\pip install lightweight
Collecting lightweight
  Downloading lightweight-1.0.0.dev52-py3-none-any.whl (256 kB)
      ----- 256.9/256.9 KB 450.9 kB/s eta 0:00:00
...

(prjenv) D:\pip freeze
MarkupSafe==2.1.2
mistune==0.8.4
...

(prjenv) D:\deactivate
D:\

```



Python Root packages usual path in windows

```

C:\Users\User\AppData\Local\Packages\PythonSoftwareFoundation.Python.3.9\
_qbz5n2kfra8p0\LocalCache\local-packages\Python39\site-packages\

```



See all installed packages in current python environment

```

$ pip freeze

----- ex -----
C:\Users\User>pip freeze
contourpy==1.0.7
cyclor==0.11.0
fonttools==4.38.0

```



Save all package names in *requirements.txt*

```

$ pip freeze > requirements.txt

----- ex -----
C:\Users\User>pip freeze > requirements.txt

C:\Users\User>more requirements.txt

```

```
contourpy==1.0.7
cyclor==0.11.0
fonttools==4.38.0
```



Delete Packages

```
-- first save all package names in "requirements.txt"

-- one by one
$ pip uninstall -r requirements.txt

-- all
$ pip uninstall -r requirements.txt -y

----- ex -----
C:\Users\User>pip freeze
contourpy==1.0.7
cyclor==0.11.0
fonttools==4.38.0

C:\Users\User>pip freeze > requirements.txt

C:\Users\User>pip freeze

C:\Users\User>
```

2 Python Packages