



통계특강 with Python

Python 가상환경 만들기

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가상환경이란?



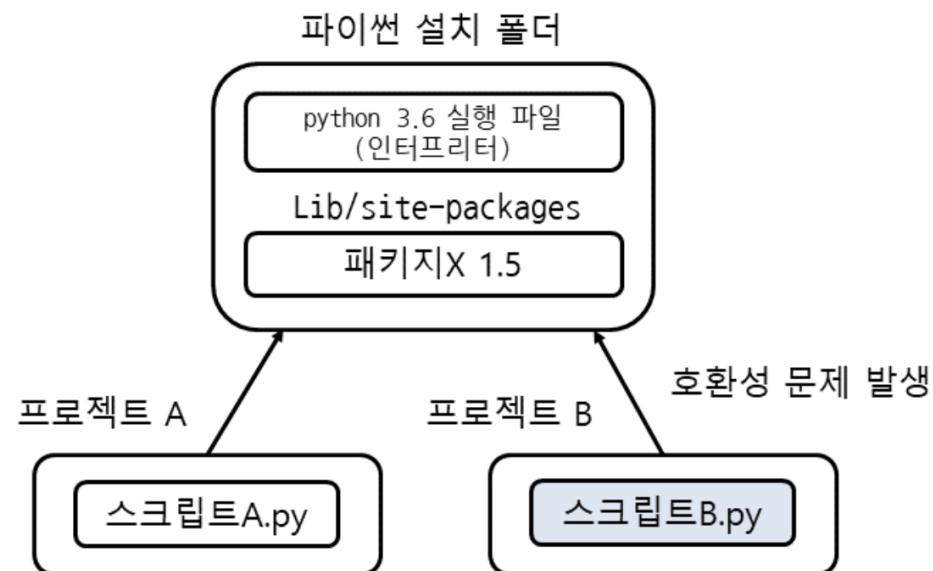
가상환경이란?

- 가상환경(Virtual Environments)는 가상의 파이썬 환경을 구축하는 것을 의미
- 파이썬 설치 이후 우리가 사용하고 있는 것은 `base`이며, 여기에 계속 라이브러리를 설치하다보면 라이브러리 간의 의존성(dependency) 문제가 종종 발생
- 이러한 문제를 해결하기 위해 독립적인 파이썬 환경을 만들어 패키지와 버전을 관리하기 위한 것이 가상환경!!



가상환경이 왜 필요할까?

글로벌 파이썬 환경

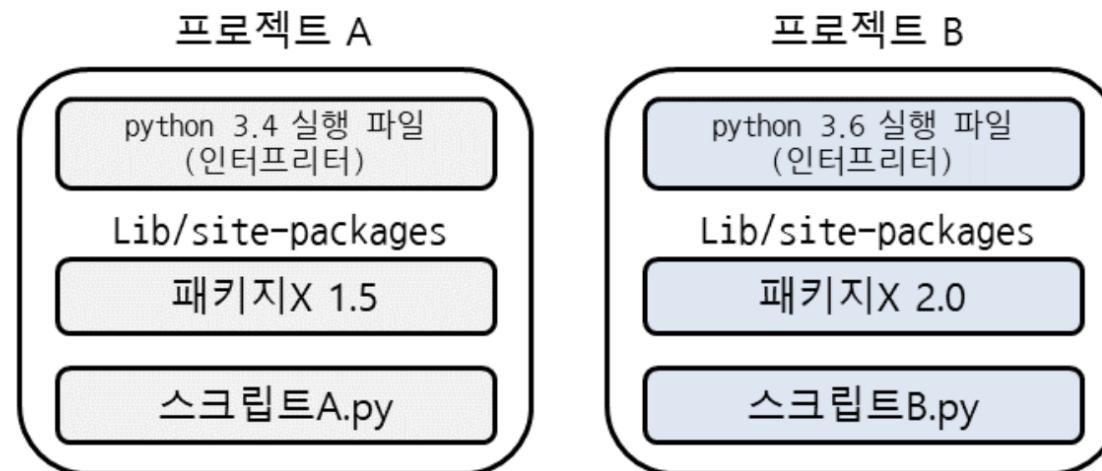


그림출처: <https://dojang.io/mod/page/view.php?id=2470>



가상환경이 왜 필요할까?

가상 환경



그림출처: <https://dojang.io/mod/page/view.php?id=2470>

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Applications on base (root) Channels Refresh

Icon	Name	Description	Version	Action
DL	Datalore	Online Data Analysis Tool with smart coding assistance by JetBrains. Edit and run your Python notebooks in the cloud and share them with your team.		Launch
Watson Cloud	IBM Watson Studio Cloud	IBM Watson Studio Cloud provides you the tools to analyze and visualize data, to cleanse and shape data, to create and train machine learning models. Prepare data and build models, using open source data science tools or visual modeling.		Launch
lab	JupyterLab	An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture.	3.0.14	Launch
jupyter	Notebook	Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis.	6.3.0	Launch
IPy	Qt Console	PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more.	5.0.3	Launch
Spyder	Spyder	Scientific PYthon Development EnvirOrnment. Powerful Python IDE with advanced editing, interactive testing, debugging and introspection features	4.2.5	Launch
Glueviz	Glueviz	Multidimensional data visualization across files. Explore relationships within and among related datasets.	1.0.0	Install
Orange	Orange 3	Component based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox.	3.26.0	Install
PC	R			

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base (root) ▶

Search Environments

Installed Channels Update index... Search Packages

Name	Description	Version
✓ _ipyw_jlab_nb_ex...	0.1.0	
✓ alabaster	0.7.12	
✓ anaconda	2021.05	
✓ anaconda-client	1.7.2	
✓ anaconda-project	0.9.1	
✓ anyio	2.2.0	
✓ appdirs	1.4.4	
✓ applaunchservices	0.2.1	
✓ appnope	0.1.2	
✓ appscript	1.1.2	
✓ argh	0.26.2	
✓ argon2-cffi	20.1.0	
✓ asn1crypto	1.4.0	
✓ astroid	2.5	
✓ astropy	4.2.1	
✓ async-generator	1.10	
✓ async_generator	1.10	

354 packages available

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Search Environments base (root)

Installed Channels Update index... Search Packages

Name	Description	Version
✓ _ipyw_jlab_nb_ex...		0.1.0
✓ alabaster		0.7.12
✓ anaconda		2021.05
✓ appscript		1.1.2
✓ argh		0.26.2
✓ argon2-cffi		20.1.0
✓ asn1crypto		1.4.0
✓ astroid		2.5
✓ astropy		4.2.1
✓ async-generator	Python	1.10
✓ async_generator		1.10

Create new environment

Name: crawler

Location: /Users/hyunsung/anaconda3/envs/crawler

Packages: Python 3.8 R r

Create Cancel

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base (root) crawler >

Search Environments Installed Channels Update index... Search Packages

Name	Description	Version
ca-certificates		2021.5.25
certifi		2021.5.30
libcxx		10.0.0
libffi		3.3
ncurses		6.2
openssl		1.1.1k
pip		21.1.3
python		3.8.10
readline		8.1
setuptools		52.0.0
sqlite		3.36.0
tk		8.6.10
wheel		0.36.2
xz		5.2.5
zlib		1.2.11

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15 packages available

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Search Environments Not installed Channels Update index... beautifulsoup X

base (root) Name Description Version

crawler beautifulsoup4 4.9.3

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Create Clone Import Remove

1 package available matching "beautifulsoup" 1 package selected

Apply Clear

The screenshot shows the Anaconda Navigator application interface. On the left, there's a sidebar with links for Home, Environments, Learning, and Community. A callout for ANACONDA. NUCLEUS is present. The main area has tabs for Search Environments, Not installed (highlighted with a red box), Channels, and Update index... (with a search input field containing 'beautifulsoup' highlighted with a red box). Below these are environment lists for 'base (root)' and 'crawler'. In the 'crawler' environment, 'beautifulsoup4' is listed with version 4.9.3. At the bottom, there are buttons for Create, Clone, Import, Remove, and Apply/Clear, with 'Apply' highlighted with a red box.

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Search Environments requests

Not installed Channels Update index...

Name	Description	Version
aws-requests-auth		0.4.3
<input checked="" type="checkbox"/> requests		2.25.1
requests-file		1.5.1
requests-ftp		0.3.1
requests-futures		1.0.0
requests-kerberos		0.12.0
requests-oauthlib		1.3.0
requests-toolbelt		0.9.1
requests_download		0.1.2

base (root) crawler < >

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9 packages available matching "requests" 1 package selected

Apply Clear

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Search Environments Not installed Channels Update index... X

Name	Description	Version
pytest-selenium		2.0.1
r-seleniumpipes		0.3.7
selenium		3.9.0

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3 packages available matching "selenium" 1 package selected

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crawler

Datalore Online Data Analysis Tool with smart coding assistance by JetBrains. Edit and run your Python notebooks in the cloud and share them with your team. Launch	IBM Watson Studio Cloud IBM Watson Studio Cloud provides you the tools to analyze and visualize data, to cleanse and shape data, to create and train machine learning models. Prepare data and build models, using open source data science tools or visual modeling. Launch	Glueviz 1.0.0 Multidimensional data visualization across files. Explore relationships within and among related datasets. Install	JupyterLab 3.0.14 An extensible environment for interactive and reproducible computing, based on the Jupyter Notebook and Architecture. Install
jupyter Notebook 6.4.0 Web-based, interactive computing notebook environment. Edit and run human-readable docs while describing the data analysis. Install	Orange 3 3.26.0 Component-based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox. Install	PyCharm Professional A full-fledged IDE by JetBrains for both Scientific and Web Python development. Supports HTML, JS, and SQL. Install	IPyConsole 5.1.0 PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more. Install
R	Python		

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Applications on crawler Channels Refresh

Icon	Name	Description	Launch
	Datalore	Online Data Analysis Tool with smart coding assistance by JetBrains. Edit and run your Python notebooks in the cloud and share them with your team.	Launch
	IBM Watson Studio Cloud	IBM Watson Studio Cloud provides you the tools to analyze and visualize data, to cleanse and shape data, to create and train machine learning models. Prepare data and build models, using open source data science tools or visual modelino.	Launch
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	Glueviz 1.0.0	Multidimensional data visualization across files. Explore relationships within and among related datasets.	Install
	Orange 3 3.26.0	Component-based data mining framework. Data visualization and data analysis for novice and expert. Interactive workflows with a large toolbox.	Install
	PyCharm Professional	A full-fledged IDE by JetBrains for both Scientific and Web Python development. Supports HTML, JS, and SQL.	Install
	Qt Console 5.1.0	PyQt GUI that supports inline figures, proper multiline editing with syntax highlighting, graphical calltips, and more.	Install
	R		
	Python		

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hyunsung1021@gmail.com

실습자료는 아래 페이지에서 받으실 수 있습니다.

<https://statkim.github.io/stats-summer-2021/>