

Python 오라클 연동 [with local database]

```
(base) C:\Windows\system32>conda install -c https://conda.anaconda.org/anaconda cx_oracle
```

```
Solving environment: done
```

```
==> WARNING: A newer version of conda exists. <==
```

```
current version: 4.5.11
```

```
latest version: 4.10.3
```

Please update conda by running

```
$ conda update -n base -c defaults conda
```

Package Plan

```
environment location: C:\Users\WORK\Anaconda3
```

```
added / updated specs:
```

```
- cx_oracle
```

The following packages will be downloaded:

package	build		
jpeg-9b	vc14h4d7706e_1	313 KB	anaconda
cryptography-3.1.1	py37h7a1dbc1_0	585 KB	anaconda
zlib-1.2.11	vc14h1cdd9ab_1	117 KB	anaconda
vs2015_runtime-14.16.27012	hf0eaf9b_3	2.4 MB	anaconda
libpng-1.6.37	h2a8f88b_0	598 KB	anaconda
libssh2-1.8.0	vc14hcf584a9_2	748 KB	anaconda
openssl-1.1.1h	he774522_0	5.8 MB	anaconda
krb5-1.16.4	hc04afaa_0	832 KB	anaconda
yaml-0.1.7	vc14h4cb57cf_1	103 KB	anaconda
qt-5.9.7	vc14h73c81de_0	92.3 MB	anaconda
conda-package-handling-1.7.2	py37h76e460a_0	815 KB	anaconda
icu-58.2	vc14hc45fdbb_0	21.9 MB	anaconda
cx_oracle-8.0.1	py37h62dcd97_0	197 KB	anaconda
libcurl-7.64.0	h2a8f88b_2	283 KB	anaconda
hdf5-1.10.1	vc14hb361328_0	33.5 MB	anaconda
snappy-1.1.7	vc14h2dea872_1	81 KB	anaconda
certifi-2020.6.20	py37_0	160 KB	anaconda
libiconv-1.15	vc14h29686d3_5	658 KB	anaconda
bzip2-1.0.6	vc14hdec8e7a_1	145 KB	anaconda
curl-7.55.1	vc14hdaba4a4_3	328 KB	anaconda
sqlite-3.33.0	h2a8f88b_0	1.3 MB	anaconda
lzo-2.10	vc14h0a64fa6_1	154 KB	anaconda
pycurl-7.43.0.2	py37h7a1dbc1_0	181 KB	anaconda
conda-4.9.0	py37_0	3.1 MB	anaconda

ca-certificates-2020.10.14

159 KB anaconda

Total: 166.5 MB

The following NEW packages will be INSTALLED:

```
conda-package-handling: 1.7.2-py37h76e460a_0 anaconda
cx_oracle: 8.0.1-py37h62dcd97_0 anaconda
krb5: 1.16.4-hc04afaa_0 anaconda
```

The following packages will be UPDATED:

```
ca-certificates: 2018.03.07-0 --> 2020.10.14-0 anaconda
certifi: 2018.8.24-py37_1 --> 2020.6.20-py37_0 anaconda
conda: 4.5.11-py37_0 --> 4.9.0-py37_0 anaconda
cryptography: 2.3.1-py37h74b6da3_0 --> 3.1.1-py37h7a1dbc1_0 anaconda
libcurl: 7.61.0-h7602738_0 --> 7.64.0-h2a8f88b_2 anaconda
libpng: 1.6.34-h79bbb47_0 --> 1.6.37-h2a8f88b_0 anaconda
openssl: 1.0.2p-hfa6e2cd_0 --> 1.1.1h-he774522_0 anaconda
pycurl: 7.43.0.2-py37h74b6da3_0 --> 7.43.0.2-py37h7a1dbc1_0 anaconda
qt: 5.9.6-vc14h1e9a669_2 --> 5.9.7-vc14h73c81de_0 anaconda [vc14]
sqlite: 3.24.0-h7602738_0 --> 3.33.0-h2a8f88b_0 anaconda
vs2015_runtime: 14.15.26706-h3a45250_0 --> 14.16.27012-hf0eaf9b_3 anaconda
```

The following packages will be DOWNGRADED:

```
bzip2: 1.0.6-hfa6e2cd_5 --> 1.0.6-vc14hdec8e7a_1 anaconda [vc14]
curl: 7.61.0-h7602738_0 --> 7.55.1-vc14hdaba4a4_3 anaconda [vc14]
hdf5: 1.10.2-hac2f561_1 --> 1.10.1-vc14hb361328_0 anaconda [vc14]
icu: 58.2-ha66f8fd_1 --> 58.2-vc14hc45fdbb_0 anaconda [vc14]
jpeg: 9b-hb83a4c4_2 --> 9b-vc14h4d7706e_1 anaconda [vc14]
libiconv: 1.15-h1df5818_7 --> 1.15-vc14h29686d3_5 anaconda [vc14]
libssh2: 1.8.0-hd619d38_4 --> 1.8.0-vc14hcf584a9_2 anaconda [vc14]
lzo: 2.10-h6df0209_2 --> 2.10-vc14h0a64fa6_1 anaconda [vc14]
snappy: 1.1.7-h777316e_3 --> 1.1.7-vc14h2dea872_1 anaconda [vc14]
yaml: 0.1.7-hc54c509_2 --> 0.1.7-vc14h4cb57cf_1 anaconda [vc14]
zlib: 1.2.11-h8395fce_2 --> 1.2.11-vc14h1cdd9ab_1 anaconda [vc14]
```

Proceed ([y]/n)? y

Downloading and Extracting Packages

```
jpeg-9b | 313 KB | ##### | 100%
cryptography-3.1.1 | 585 KB | ##### | 100%
zlib-1.2.11 | 117 KB | ##### | 100%
vs2015_runtime-14.16 | 2.4 MB | ##### | 100%
libpng-1.6.37 | 598 KB | ##### | 100%
libssh2-1.8.0 | 748 KB | ##### | 100%
openssl-1.1.1h | 5.8 MB | ##### | 100%
krb5-1.16.4 | 832 KB | ##### | 100%
yaml-0.1.7 | 103 KB | ##### | 100%
qt-5.9.7 | 92.3 MB | ##### | 100%

conda-package-handling | 815 KB | ##### | 100%
```

icu-58.2

| 21.9 MB

|

| 100%

cx_oracle-8.0.1	197 KB	#####	100%
libcurl-7.64.0	283 KB	#####	100%
hdf5-1.10.1	33.5 MB	#####	100%
snappy-1.1.7	81 KB	#####	100%
certifi-2020.6.20	160 KB	#####	100%
libiconv-1.15	658 KB	#####	100%
bzip2-1.0.6	145 KB	#####	100%
curl-7.55.1	328 KB	#####	100%
sqlite-3.33.0	1.3 MB	#####	100%
lzo-2.10	154 KB	#####	100%
pycurl-7.43.0.2	181 KB	#####	100%
conda-4.9.0	3.1 MB	#####	100%
ca-certificates-2020	159 KB	#####	100%

Preparing transaction: done

Verifying transaction: done

Executing transaction: done

```
import cx_Oracle
```

```
import os
```

```
os.putenv('NLS_LANG', 'KOREAN_KOREA.KO16MSWIN949')
```

```
con1 = cx_Oracle.connect("ora01/oracle_4U@localhost:1521/xe")
```

```
cur = con1.cursor()
```

```
cur.execute('''
    select empno, ename, job, deptno, sal
    from emp e
    where sal >= (select avg(sal)
                  from emp
                  where deptno = e.deptno)''')
```

```
qdata = [empno for empno in cur]
```

```
empno = [x[0] for x in qdata]
```

```
ename = [x[1] for x in qdata]
```

```
job = [x[2] for x in qdata]
```

```
cur.close()
```

```
con1.close()
```

Python 오라클 연동 [with cloud database]

[Ref . <https://www.oracle.com/database/technologies/appdev/python/quickstartpython.html#copy>]

1. 명령 프롬프트 관리자 모드로 실행 및 install cx_Oracle (기존 설치 파일 존재)

```
C:\Windows\system32>python -m pip install cx_Oracle --upgrade --user
Python
```

2. install the Oracle Instant Client Basic Package

2.1 새로운 폴더 생성 -> c:\Woracle

C:\Woracle

2.2 새롭게 생성한 위치에 Oracle instant Client Basic Package

C:\Woracle\instantclient_19_11

3. wallet 압축 풀기

3.1 C:\Woracle\instantclient_19_11 디렉토리에 network\admin 디렉토리 생성

C:\Woracle\instantclient_19_11\network\admin

3.2 C:\Woracle\instantclient_19_11\network\admin 에서 전자지갑 압축풀기

4. python application 만들기

```
import cx_Oracle
```

```
cx_Oracle.init_oracle_client(lib_dir=r"C:\Woracle\instantclient_19_11")
```

```
connection = cx_Oracle.connect(user='ora01', password='oracle_4U2021', dsn='edudb3_high')
```

```
cursor = connection.cursor()
```

```
cursor.execute("""
select empno, ename, job, deptno, sal
from emp e
where sal >= (select avg(sal)
from emp
where deptno = e.deptno)""")
```

```
qdata = [empno for empno in cursor]
```

```
empno = [x[0] for x in qdata]
ename = [x[1] for x in qdata]
job = [x[2] for x in qdata]
```

```
# Create a table
```

```
cursor.execute("create table pytab (id number, data varchar2(20))")
```

```
# Insert some rows
```

```
rows = [ (1, "First" ),
(2, "Second" ),
(3, "Third" ),
(4, "Fourth" ),
(5, "Fifth" ),
```

```
(6, "Sixth" ),  
(7, "Seventh" ) ]
```

```
cursor.executemany("insert into pytab(id, data) values (:1, :2)", rows)
```

```
cursor.execute('''  
select *  
from pytab''')
```

```
qdata2 = [py for py in cursor]
```

```
id = [x[0] for x in qdata2]  
data = [x[1] for x in qdata2]
```

```
# sql developer 영역에서는 확인 불가
```

```
# uncomment to make data persistent  
connection.commit()
```

```
# commit 후 sql developer 영역 확인 가능
```

```
###
```

```
import pandas as pd
```

```
query = '''  
select *  
from emp  
'''
```

```
df_emp = pd.read_sql(query,connection)
```

```
df_emp.columns
```

```
df_emp.head()
```

```
df_emp['EMPNO'].head()  
df_emp['EMPNO'].head(10)
```

```
df_emp[['EMPNO','ENAME']].head()  
df_emp[['EMPNO','ENAME']].head(10)
```

```
df_emp[df_emp.SAL >= 1800]
```

```
# error  
df_emp[df_emp.SAL >= 1800 & df_emp.SAL <= 2900]
```

```
# 1500 이상 2900 이하 급여를 받는 직원들에 대한 정보 확인  
df_emp[(df_emp.SAL >= 1500) & (df_emp.SAL <= 2900)]
```

```
# python data frame 을 list 로 생성하여 데이터 입력!!
```

```
import cx_Oracle

cx_Oracle.init_oracle_client(lib_dir=r"C:\Woracle\Winstantclient_19_11")

connection = cx_Oracle.connect(user='ora01', password='oracle_4U2021', dsn='edudb3_high')

cursor = connection.cursor()

#%% data frame 생성

import cx_Oracle
from sqlalchemy import types, create_engine

import pandas as pd
data = {'name':['Lee', 'Hwang', 'Kim', 'Choi'],
        'score':[100, 95, 80, 85],
        'grade':['A', 'A', 'B', 'B']}
df = pd.DataFrame(data)
df

# 데이터 타입 확인
type(df)
cursor.execute("""create table test_tname (name varchar2(10)
                                           , score number(5,2)
                                           , grade varchar2(3))""")

test_list = df.values.tolist()
print(test_list)

cursor.executemany("insert into test_tname(name,score,grade) values (:1, :2, :3)", test_list)

connection.commit()

cursor.close()
connection.close()
```

mac OSX 에 cx_Oracle 설치

Last login: Mon Jul 19 20:43:44 on console

(base) gimenoguiMini:~ work\$ python -m pip install cx_Oracle --upgrade --user

Collecting cx_Oracle

Downloading

https://files.pythonhosted.org/packages/be/bf/1dc153a103680b0831299e119c2281ecdec93fcfd27dd0a774a79a4f7267/cx_Oracle-8.2.1.tar.gz (359kB)

100% |██| 368kB 820kB/s

Installing build dependencies ... done

Building wheels for collected packages: cx-Oracle

Running setup.py bdist_wheel for cx-Oracle ... done

Stored in directory:

/Users/work/Library/Caches/pip/wheels/aa/e6/19/332335472a7d4398d9a9ba9f51751c8e587bdc57397be8b55e

Successfully built cx-Oracle

spyder 3.3.2 requires PyQt5<5.10; python_version >= "3", which is not installed.

conda 4.10.3 requires ruamel_yaml_conda>=0.11.14, which is not installed.

jupyterlab-server 1.0.0 has requirement jsonschema>=3.0.1, but you'll have jsonschema 2.6.0 which is incompatible.

cryptography 3.3.2 has requirement cffi>=1.12, but you'll have cffi 1.11.5 which is incompatible.

Installing collected packages: cx-Oracle

Successfully installed cx-Oracle-8.2.1

You are using pip version 10.0.1, however version 21.1.3 is available.

You should consider upgrading via the 'pip install --upgrade pip' command.

(base) gimenoguiMini:~ work\$ pip install --upgrade pip

Collecting pip

Downloading

https://files.pythonhosted.org/packages/47/ca/f0d790b6e18b3a6f3bd5e80c2ee4edbb5807286c21cdd0862ca933f751dd/pip-21.1.3-py3-none-any.whl (1.5MB)

100% |██| 1.6MB 5.2MB/s

spyder 3.3.2 requires PyQt5<5.10; python_version >= "3", which is not installed.

conda 4.10.3 requires ruamel_yaml_conda>=0.11.14, which is not installed.

jupyterlab-server 1.0.0 has requirement jsonschema>=3.0.1, but you'll have jsonschema 2.6.0 which is incompatible.

cryptography 3.3.2 has requirement cffi>=1.12, but you'll have cffi 1.11.5 which is incompatible.

Installing collected packages: pip

Found existing installation: pip 10.0.1

Uninstalling pip-10.0.1:

Successfully uninstalled pip-10.0.1

Successfully installed pip-21.1.3

(base) gimenoguiMini:~ work\$ python -m pip install cx_Oracle --upgrade --user

Requirement already satisfied: cx_Oracle in ./local/lib/python3.7/site-packages (8.2.1)

Oracle Instant Client Downloads for macOS (Intel x86) download 받기

<https://www.oracle.com/database/technologies/instant-client/macos-intel-x86-downloads.html>

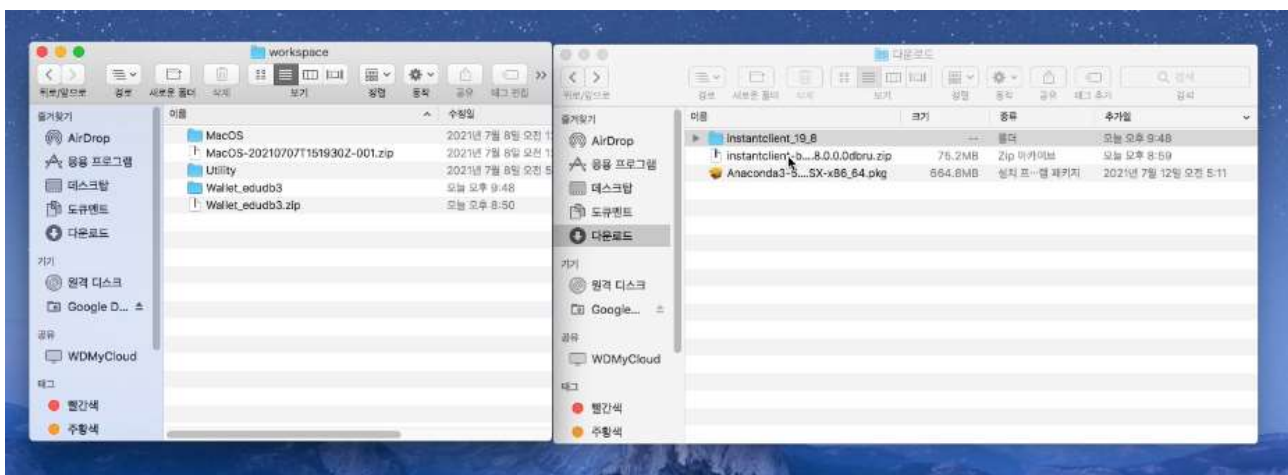
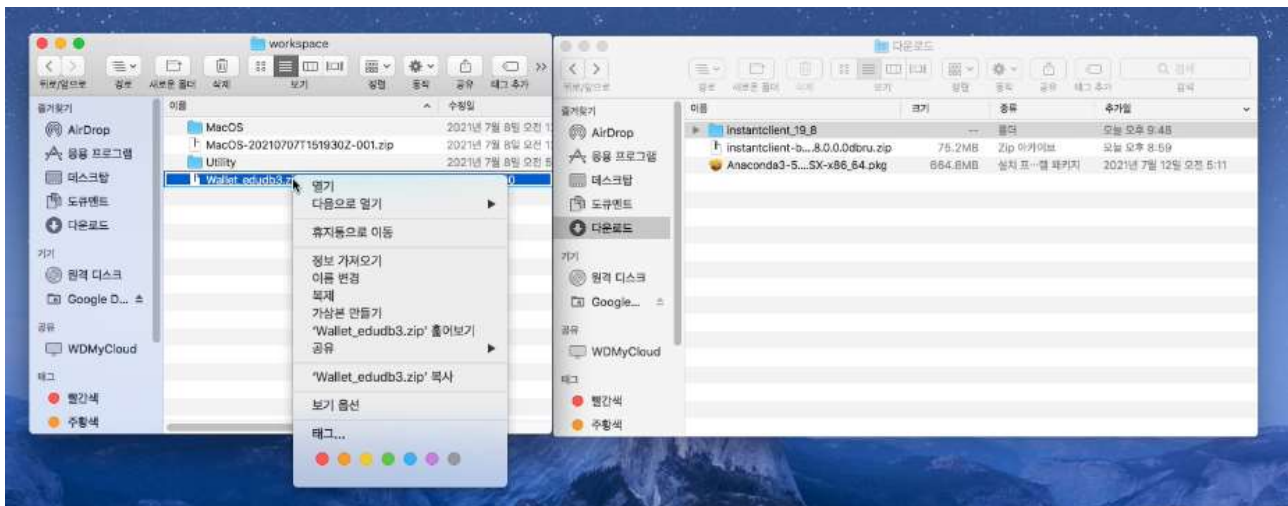
oracle.com/database/technologies/instant-client/macos-intel-x86-downloads.html

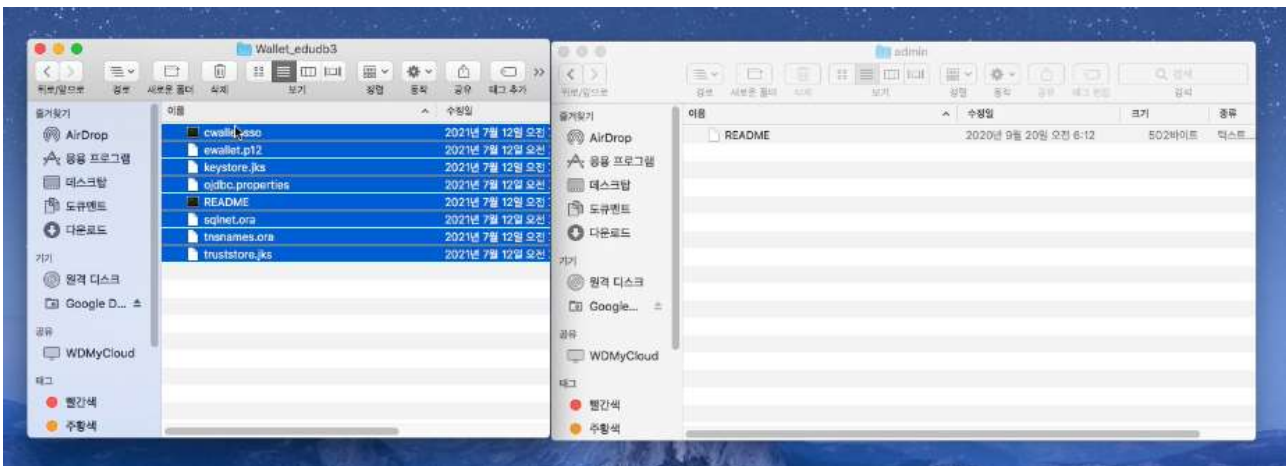
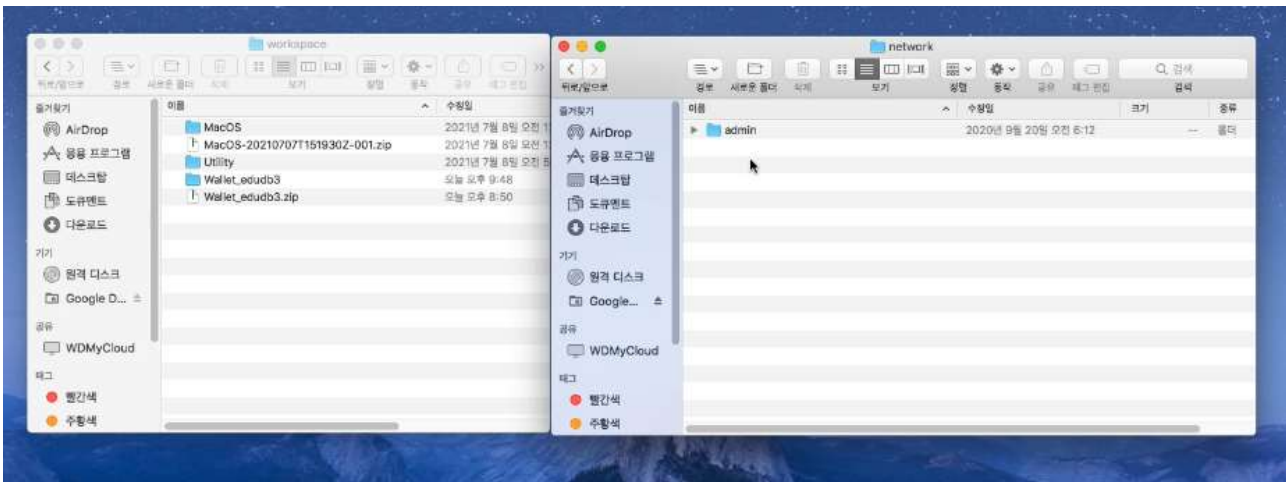
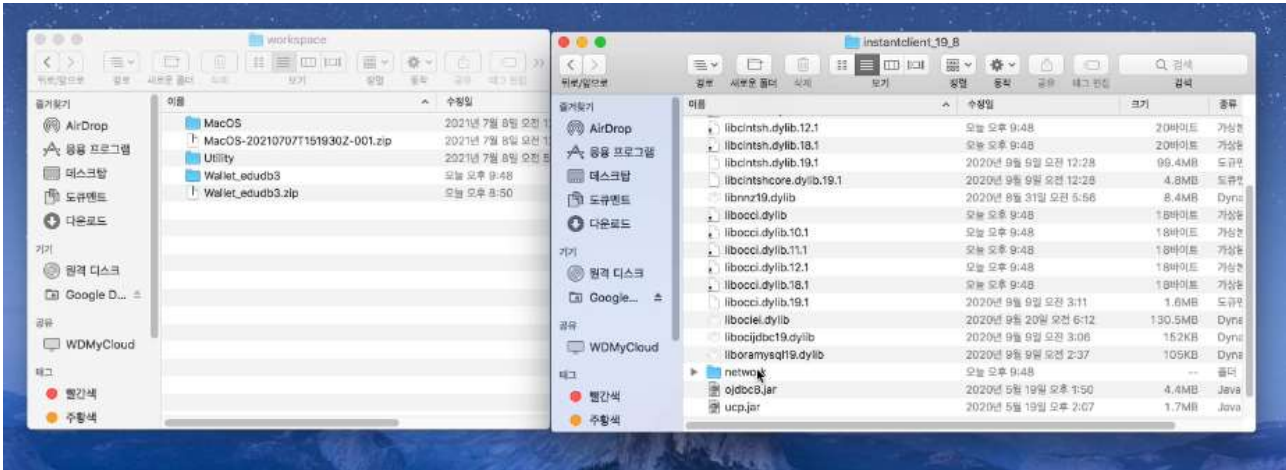
Permanent links to the latest packages are: [Basic \(zip\)](#), [Basic \(dmg\)](#), [Basic Light \(zip\)](#), [Basic Light \(dmg\)](#), [SQL*Plus \(zip\)](#), [SQL*Plus \(dmg\)](#), [Tools \(zip\)](#), [Tools \(dmg\)](#), [SDK \(zip\)](#), [SDK \(dmg\)](#), [JDBC Supplement \(zip\)](#), [JDBC Supplement \(dmg\)](#), [ODBC \(zip\)](#) [ODBC \(dmg\)](#),

Version 19.8.0.0.0

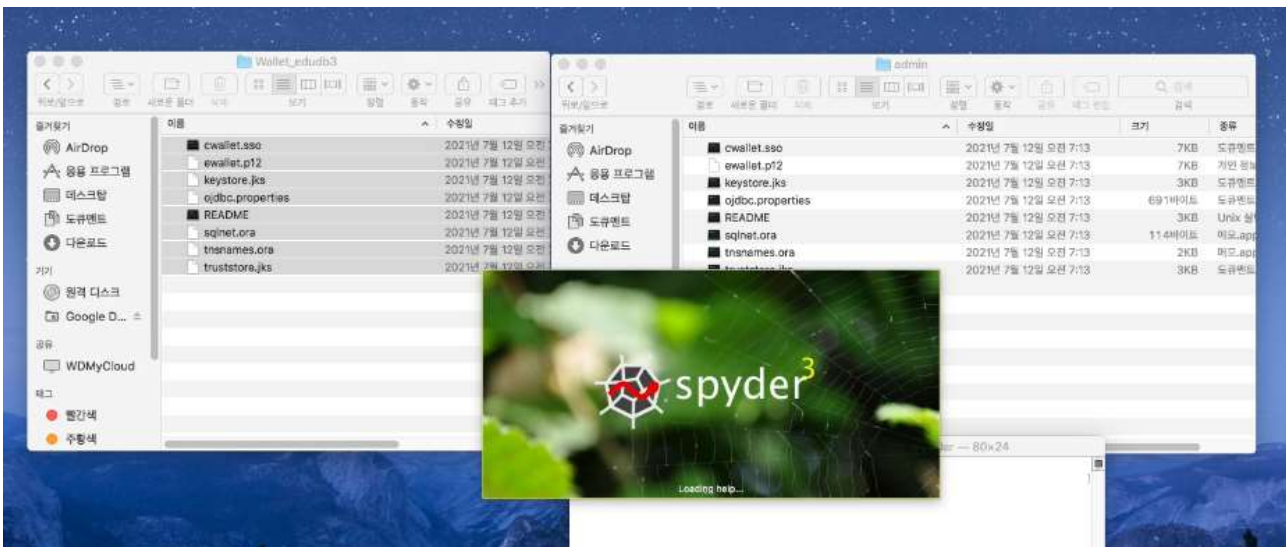
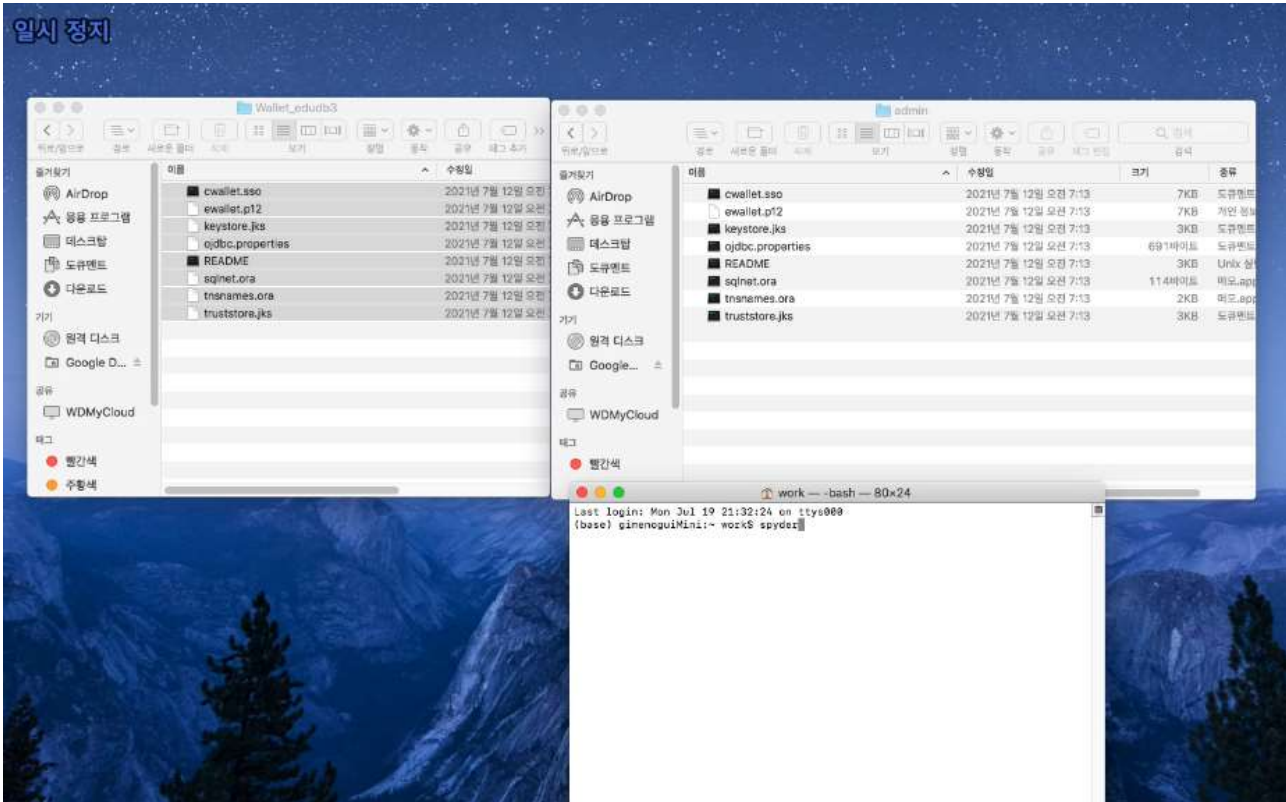
Base - one of these packages is required

Name	Download	Description
Basic Package (ZIP)	instantclient-basic-macos.x64-19.8.0.0.0dbru.zip	All files required to run applications (75,201,214 bytes) (c





일시 정지



spyder Editor 입력 명령어 확인

```
import os
import cx_Oracle

cx_Oracle.init_oracle_client(lib_dir=os.environ.get("HOME")+"/Downloads/instantclient_19_8")

connection = cx_Oracle.connect(user="ora01", password="oracle_4U2021", dsn="edudb3_high")

cursor = connection.cursor()

# Create a table

cursor.execute("""drop table pytab purge""")
cursor.execute("create table pytab (id number, data varchar2(20))")

# Insert some rows

rows = [ (1, "First" ),
          (2, "Second" ),
          (3, "Third" ),
          (4, "Fourth" ),
          (5, "Fifth" ),
          (6, "Sixth" ),
          (7, "Seventh" ) ]

cursor.executemany("insert into pytab(id, data) values (:1, :2)", rows)

# connection.commit() # uncomment to make data persistent

# Now query the rows back

for row in cursor.execute('select * from pytab'):
    print(row)

connection.commit()

cursor.close()
connection.close()
```

아나콘다 가상환경 개념 및 활용 방법

가상환경 : 독립적인 작업환경에서 패키지 및 버전 관리를 하기 위한 환경

일반적으로 base 안에 패키지 혹은 라이브러리를 설치했다 실패했다를 반복. -> 경고 문구, 의존성 문제로 다양한 오류 발생

가상환경 handling

1. 가상환경 리스트 check

```
(base) C:\Users\WORK>conda info --envs
# conda environments:
#
base                  * C:\Users\WORK\Anaconda3
```

2. 가상환경 생성하기

가상환경 추가

```
C:\Users\WTEST>conda create -n envs37 python=3.7
Solving environment: done
```

```
==> WARNING: A newer version of conda exists. <==
current version: 4.5.11
latest version: 4.10.3
```

Please update conda by running

```
$ conda update -n base -c defaults conda
```

```
## Package Plan ##
```

```
environment location: C:\Users\WTEST\Anaconda3\envs\envs37
```

```
added / updated specs:
- python=3.7
```

The following packages will be downloaded:

package	build	
wheel-0.36.2	pyhd3eb1b0_0	31 KB
python-3.7.10	h6244533_0	17.4 MB
pip-21.1.3	py37haa95532_0	2.0 MB
ca-certificates-2021.7.5	haa95532_1	149 KB
setuptools-52.0.0	py37haa95532_0	936 KB
openssl-1.1.1k	h2bbff1b_0	5.7 MB
certifi-2021.5.30	py37haa95532_0	142 KB
vs2015_runtime-14.27.29016	h5e58377_2	2.2 MB
sqlite-3.36.0	h2bbff1b_0	1.2 MB
vc-14.2	h21ff451_1	8 KB

Total: 29.8 MB

The following NEW packages will be INSTALLED:

```
ca-certificates: 2021.7.5-haa95532_1
certifi:         2021.5.30-py37haa95532_0
openssl:        1.1.1k-h2bbff1b_0
pip:            21.1.3-py37haa95532_0
python:         3.7.10-h6244533_0
setuptools:     52.0.0-py37haa95532_0
sqlite:         3.36.0-h2bbff1b_0
vc:             14.2-h21ff451_1
vs2015_runtime: 14.27.29016-h5e58377_2
wheel:          0.36.2-pyhd3eb1b0_0
wincertstore:   0.2-py37_0
```

Proceed ([y]/n)? y

Downloading and Extracting Packages

```
wheel-0.36.2      | 31 KB      |
##### | 100%
python-3.7.10     | 17.4 MB    |
##### | 100%
pip-21.1.3       | 2.0 MB     |
##### | 100%
ca-certificates-2021 | 149 KB     |
##### | 100%
setuptools-52.0.0 | 936 KB     |
##### | 100%
openssl-1.1.1k    | 5.7 MB     |
##### | 100%
certifi-2021.5.30 | 142 KB     |
##### | 100%
vs2015_runtime-14.27 | 2.2 MB     |
##### | 100%
sqlite-3.36.0     | 1.2 MB     |
##### | 100%
vc-14.2           | 8 KB       |
##### | 100%
```

Preparing transaction: done

Verifying transaction: done

Executing transaction: done

#

To activate this environment, use:

> activate envs37

#

To deactivate an active environment, use:

> deactivate

#

* for power-users using bash, you must source

#

2. 가상환경 활성화

추가된 가상환경 확인

```
C:\Users\WTEST>conda info --envs
```

```
# conda environments:
```

```
#
```

```
base * C:\Users\WTEST\Anaconda3
```

```
envs37 C:\Users\WTEST\Anaconda3\envs\envs37
```

```
C:\Users\WTEST>conda activate envs37
```

```
(envs37) C:\Users\WTEST>
```

3. 가상환경 비활성화

```
C:\Users\WTEST>conda deactivate
```

```
(envs37) C:\Users\WTEST>
```

4. 가상환경 라이브러리 확인

```
(envs37) C:\Users\WTEST>conda list
```

```
# packages in environment at C:\Users\WTEST\Anaconda3\envs\envs37:
```

```
#
```

# Name	Version	Build	Channel
ca-certificates	2021.7.5	haa95532_1	
certifi	2021.5.30	py37haa95532_0	
openssl	1.1.1k	h2bfff1b_0	
pip	21.1.3	py37haa95532_0	
python	3.7.10	h6244533_0	
setuptools	52.0.0	py37haa95532_0	
sqlite	3.36.0	h2bfff1b_0	
vc	14.2	h21ff451_1	
vs2015_runtime	14.27.29016	h5e58377_2	
wheel	0.36.2	pyhd3eb1b0_0	
wincertstore	0.2	py37_0	

5. 가상환경의 라이브러리(패키지) 관리

가상환경 Base 에 존재하는 패키지 목록 생성

```
C:\Users\WTEST>pip freeze > req_package_list.txt
```

```
C:\Users\WTEST>dir
```

```
C 드라이브의 볼륨에는 이름이 없습니다.
```

```
볼륨 일련 번호: B08E-76C8
```

```
C:\Users\WTEST 디렉터리
```

```
...
```

```
2021-07-21 오전 05:51
```

```
3,940 req_package_list.txt
```

```
...
```

새로운 가상환경을 활성화 시키고 해당
패키지 목록을 구성

```
C:\Users\WTEST>conda activate envs37
```

```
(envs37) C:\Users\WTEST>
```

```
(envs37) C:\Users\WTEST>pip install -r req_package_list.txt
Collecting alabaster==0.7.11
  Downloading alabaster-0.7.11-py2.py3-none-any.whl (14 kB)
Collecting altgraph==0.17
  Using cached altgraph-0.17-py2.py3-none-any.whl (21 kB)
ERROR: Could not find a version that satisfies the requirement anaconda-client==1.7.2 (from versions:
1.1.1, 1.2.2)
ERROR: No matching distribution found for anaconda-client==1.7.2
```

```
(envs37) C:\Users\WTEST>conda update -n envs37 -c C:\Users\WTEST\Anaconda3\envs\envs37 anaconda-client
```

```
PackageNotInstalledError: Package is not installed in prefix.
  prefix: C:\Users\WTEST\Anaconda3\envs\envs37
  package name: anaconda-client
```

```
(envs37) C:\Users\WTEST>pip install anaconda-client
Collecting anaconda-client
  Downloading anaconda-client-1.2.2.tar.gz (64 kB)
    |████████████████████████████████████████| 64 kB 1.5 MB/s
Collecting clyent
  Downloading clyent-1.2.1.tar.gz (20 kB)
Collecting requests>=2.0
  Downloading requests-2.26.0-py2.py3-none-any.whl (62 kB)
    |████████████████████████████████████████| 62 kB 330 kB/s
Collecting pyyaml
  Downloading PyYAML-5.4.1-cp37-cp37m-win_amd64.whl (210 kB)
    |████████████████████████████████████████| 210 kB 6.4 MB/s
Collecting python-dateutil
  Downloading python_dateutil-2.8.2-py2.py3-none-any.whl (247 kB)
    |████████████████████████████████████████| 247 kB ...
Collecting pytz
  Downloading pytz-2021.1-py2.py3-none-any.whl (510 kB)
    |████████████████████████████████████████| 510 kB ...
Requirement already satisfied: certifi>=2017.4.17 in c:\Users\Wtest\Anaconda3\envs\envs37\lib\site-
packages (from requests>=2.0->anaconda-client) (2021.5.30)
Collecting idna<4,>=2.5
  Downloading idna-3.2-py3-none-any.whl (59 kB)
    |████████████████████████████████████████| 59 kB 3.8 MB/s
Collecting urllib3<1.27,>=1.21.1
  Downloading urllib3-1.26.6-py2.py3-none-any.whl (138 kB)
    |████████████████████████████████████████| 138 kB 6.8 MB/s
Collecting charset-normalizer~2.0.0
  Downloading charset_normalizer-2.0.3-py3-none-any.whl (35 kB)
Collecting six>=1.5
  Downloading six-1.16.0-py2.py3-none-any.whl (11 kB)
Building wheels for collected packages: anaconda-client, clyent
```



```
Building wheel for anaconda-client
(setup.py) ... done
Created wheel for anaconda-client: filename=anaconda_client-1.2.2-py3-none-any.whl size=75071
sha256=d8179dd47fd5d18cf84eb10b62892fb4b141b280da3bfee3240a6dc8c90de002
Stored in directory:
c:\Users\Wtest\AppData\Local\Pip\Cache\Wheels\Wa9W74Wf2W805d48a00d908f1fe87745e88f7c6c363f808ca99002f8d870
Building wheel for clyent (setup.py) ... done
Created wheel for clyent: filename=clyent-1.2.1-py3-none-any.whl size=9213
sha256=bb78840d77feaed2a4863c623ba030827218a55e94f979770399f6d08d06d1a4
Stored in directory:
c:\Users\Wtest\AppData\Local\Pip\Cache\Wheels\W2bW85WccW20bc86da3ed304350c871d608f4139aa546da0839d642f130f
Successfully built anaconda-client clyent
Installing collected packages: urllib3, six, idna, charset-normalizer, requests, pyyaml, pytz, python-
dateutil, clyent, anaconda-client
Successfully installed anaconda-client-1.2.2 charset-normalizer-2.0.3 clyent-1.2.1 idna-3.2 python-
dateutil-2.8.2 pytz-2021.1 pyyaml-5.4.1 requests-2.26.0 six-1.16.0 urllib3-1.26.6
```

windows cmd 에서 pip 실행 관련 문제

1. 탐색기에서 pip.exe 탐색
2. pip.exe 파일 우클릭 -> 파일 위치 열기
3. 주소창의 경로 복사
4. 환경 변수 경로 추가

내 pc (우클릭)->속성 ->고급 시스템 설정 -> 환경변수

시스템변수 -> Path -> 새로만들기 -> 붙여넣기

Mac OS 에서 pip install 관련 설정 되지 않을 때

(# 참고 : <https://blocast.tistory.com/4>)

아래의 명령어 우선 실행해 보기

```
Sudo easy_install pip
```

설치시 다음과 같은 오류 : 현재(conda
create -n envs37 python=3.7) 실행 명령

```
The following NEW packages will be INSTALLED:
ca-certificates  pkgs/main/win-64::ca-certificates-2021.7.5-haa95532_1
certifi          pkgs/main/win-64::certifi-2021.5.30-py37haa95532_0
openssl         pkgs/main/win-64::openssl-1.1.1k-h2bbff1b_0
pip             pkgs/main/win-64::pip-21.1.3-py37haa95532_0
python          pkgs/main/win-64::python-3.7.12-h2bbff1b_0
setuptools      pkgs/main/win-64::setuptools-54.1.2-py37haa95532_0
sqlite          pkgs/main/win-64::sqlite-3.34.1-h2bbff1b_0
vc              pkgs/main/win-64::vc-14.2-h2bbff1b_0
vs2015_runtime  pkgs/main/win-64::vs2015_runtime-14.29-h2bbff1b_0
wheel           pkgs/main/win-64::wheel-0.36.2-py37haa95532_0
wincertstore     pkgs/main/win-64::wincertstore-2.0.0-h2bbff1b_0
```

python.exe - 시작 지점 없음

프로시저 시작 지정 OPENSSL_sk_new_reserve(를) DLL
C:\Users\WORK\Anaconda3\Library\bin\libssl-1_1-x64.dll에
서 찾을 수 없습니다.

확인

Proceed ([y]/n)? y