##Database in Python

Just like we did in Java, we can handle DB related work & run SQL queries in python.

We need some way that connect our code & Oracle. That's when cx_Oracle comes in picture.

To **install** cx_Oracle, run this pip command in cmd.

"pip install cx_Oracle"

#Connection Establishment and verification

(Username & password = ce1 for our lab.)

import cx_Oracle   # inheritance.

con = cx_Oracle.connect('username/password@192.168.29.152/xe')

#here 192.168.29.152 is the IP of the database computer with which we want to connect.

print (con.version)

for info in con.version.split('.'):

        print(info)

con.close()

#DDL/DML

```python
import cx_Oracle
con = cx_Oracle.connect('username/password@192.168.29.152/xe')


cur = con.cursor()
cur.execute('select sysdate from dual')
for result in cur:
    print (result)


cur.close()
con.close()
```

#Create table

```python
import cx_Oracle
con = cx_Oracle.connect('username/password@192.168.29.152/xe')
cur = con.cursor()
cur.execute("""CREATE TABLE "ADVERTISERS"
    (    "ADVERTISER_ID" NUMBER(10,0),
        "ADVERTISER_NAME" VARCHAR2(20 BYTE),
```

```
    "CONTACT_LNAME" VARCHAR2(20 BYTE),

    "CONTACT_FNAME" VARCHAR2(20 BYTE),

    "PHONE_NUMBER" VARCHAR2(20 BYTE),

    "CITY" VARCHAR2(10 BYTE),

    "ST" CHAR(2 BYTE),

    "COUNTRY" CHAR(20 BYTE),

    "REGISTRY_DATE" DATE

  )""")
```

cur.execute("""

Insert into ADVERTISERS
(ADVERTISER_ID,ADVERTISER_NAME,CONTACT_LNAME,CONTACT_FN
AME,PHONE_NUMBER,CITY,ST,COUNTRY) values (1,'ROLEY
COMPANIES','SMITH','ERIC','713-882-0456','HOUSTON','TX','USA')""")

con.commit()

con.close()

#Fetching Data

3 methods

```
method fetchone()
method fetchmany(numRow=3)
method fetchall()
```

In the query.py, after execute command, you may run fetchone,
fetchmany or fetchall as per requirement. Practice using below code:

```
res = cur.fetchall()
for r in res:
        print r
```

#Update

```
import cx_Oracle

con = cx_Oracle.connect('username/password@192.168.29.152/xe')

cur = con.cursor()


cur.execute("""update ADVERTISERS set REGISTRY_DATE=sysdate
where ADVERTISER_ID=1""")

con.commit()

con.close()
```