Oracle Database Connection in Python

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Sometimes as the part of programming, we required to work with the databases because we want to store huge amount of information so we use databases, such as Oracle, MySQL etc. So In this article, we will discuss the connectivity of Oracle database with Python. This can be done through the module name **cx\_Oracle**.

**Oracle Database**

For communicating any database with our Python program, then we required some connector which is nothing but the *cx\_Oracle* module.

**For installing cx\_Oracle :**

pip install cx\_Oracle

By this command, you can install cx\_Oracle package but it is required to install Oracle database first in your PC.

**How to use this module for connection**

**• Import database specific module**

• Ex. import cx\_Oracle

**• connect():** Now Establish a connection between Python program and Oracle database by using connect() function. con = cx\_Oracle.connect('username/password@localhost')

**• cursor():** To execute sql query and to provide result some special object required is nothing but cursor() object cursor = cx\_Oracle.cursor()

**• execute method :**

*• cursor.execute(sqlquery) – – – -> to execute single query.*

*• cursor.execute(sqlqueries) – – – -> to execute a group of multiple sqlquery seperated by “;”*

**• commit():** For DML(Data Manuplate Language) query in this query you have (update, insert, delete) operation we need to commit() then only the result reflecte in database.

**• Fetch():** This retrieves the next row of a query result set and returns a single sequence, or None if no more rows are available.

**• close():** After all done mendentory to close all operation cursor.close()

• con.close()

•

**Creting table:**

filter\_none

brightness\_4

# importing module

**import** cx\_Oracle

# Create a table in Oracle database

**try**:

    con **=** cx\_Oracle.connect('scott/tiger@localhost')

    # Now execute the sqlquery

    cursor **=** con.cursor()

    # Creating a table srollno heading which is number

    cursor.execute("create table student(srollno number, \

                    name varchar2(10), efees number(10, 2)")

    print("Table Created successful")

**except** cx\_Oracle.DatabaseError as e:

    print("There is a problem with Oracle", e)

# by writing finally if any error occurs

# then also we can close the all database operation

**finally**:

**if** cursor:

        cursor.close()

**if** con:

        con.close()

**Output:**

Table Created successful

**Inserting into table:**

filter\_none

brightness\_4

# Program to create a table in Oracle database

**import** cx\_Oracle

**try**:

    con **=** cx\_Oracle.connect('scott/tiger@localhost')

    # Now execute the sqlquery

    cursor **=** con.cursor()

    cursor.execute("insert into student values(19585, Niranjan Shukla, 72000")

    # commit that insert the provided data

    con.commit()

    print("value inserted successful")

**except** cx\_Oracle.DatabaseError as e:

**print**("There is a problem with Oracle", e)

# by writing finally if any error occurs

# then also we can close the all database operation

**finally**:

**if** cursor:

        cursor.close()

**if** con:

        con.close()