

Python – Accés a Postgres

Manuals de referència:

- <http://zetcode.com/db/postgresqlpythontutorial/>
- <http://initd.org/psycpg/docs/>
- <http://www.postgresqltutorial.com/postgresql-python/>
- <https://realpython.com/python-sql-libraries/>

Connexió a la Base de Dades

```
import psycopg2

try:
    #conn = psycopg2.connect("dbname='training' user='postgres'
    host='localhost' password='jupiter'")
    conn = psycopg2.connect("dbname='training' user='user1' host='localhost'
    password='user1'")

except:
    print ("No és possible connectar a la Base de Dades")
```

O podem guardar els paràmetres de configuració en un fitxer de propietats i tenir una funció que els llegeix:

<http://www.postgresqltutorial.com/postgresql-python/connect/>

Consultar la base de dades

```
try:
    conn = psycopg2.connect("dbname='training' user='user1' host='localhost'
    password='user1'")
    cur = conn.cursor()
    cur.execute("SELECT * from oficina where ofinum>%s",(12,))
    rows = cur.fetchall()
```

```
for row in rows:
    print (row)

except (Exception, psycopg2.DatabaseError) as error:
    print(error)
finally:
    if conn is not None:
        conn.close()
```

<http://www.postgresqltutorial.com/postgresql-python/query/>

Crear una taula

```
cur.execute("DROP TABLE IF EXISTS Cars")
cur.execute("CREATE TABLE Cars(Id INT PRIMARY KEY, Name TEXT, Price INT)")
```

<http://www.postgresqltutorial.com/postgresql-python/create-tables/>

Insertar registres

```
cur.execute("CREATE TABLE test (id serial PRIMARY KEY, num smallint, data
varchar);")

cur.execute("INSERT INTO test (num, data) VALUES (%s, %s)", (100, "abcdef"))
cur.execute("INSERT INTO test (num, data) VALUES (%s, %s)", (111, "abcdef"))
```

<http://www.postgresqltutorial.com/postgresql-python/insert/>

Insert massiu

```
query = "INSERT INTO Cars (Id, Name, Price) VALUES (%s, %s, %s)"
cur.executemany(query, cars)
```

On

```
cars = (  
    (1, 'Audi', 52642),  
    (2, 'Mercedes', 57127),  
    (3, 'Skoda', 9000),  
    (4, 'Volvo', 29000),  
    (5, 'Bentley', 350000),  
    (6, 'Citroen', 21000),  
    (7, 'Hummer', 41400),  
    (8, 'Volkswagen', 21600)  
)
```

Exemple amb commit, rollback, finally, paràmetres

```
num='100'
text='qwerty'
try:
    conn = psycopg2.connect("dbname='m2' user='odoo1' host='localhost'
password='odoo1'")
    cur = conn.cursor()
    cur.execute("UPDATE test set data=%s where num=%s",(text,num))
    conn.commit()
    print("Files modificades: {0}".format(cur.rowcount))

except (Exception, psycopg2.DatabaseError) as error:
    if conn is not None:
        conn.rollback()
        print("--Error {0}".format(error))
        sys.exit(1)

finally:
    if conn is not None:
        conn.close()
```