Python Programming

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Chapter 11

MySQL - Database Connection

Topics Covering

- mysql-connector-python
- connection object
- cursor
- iterating cursor
- Exception handling - revisited

In [ ]:

```
import mysql.connector


conn   = mysql.connector.connect(user   = 'naren',
                                 password = 'Python@7',
                                 host     = '127.0.0.1',
                                 database = 'employees')

cursor = conn.cursor()

query  = "select * from employees limit 10"
#query  = "select count(*) from employees"
cursor.execute(query)


#print(cursor.fetchone())
#print(cursor.fetchall())
for t in cursor:
    print(t)

cursor.close()
conn.close()
```

In [ ]:

```
import datetime
import mysql.connector
from mysql.connector import errorcode

emp_list = []

class Employee(object):
    def __init__(self, _id, _dob, _fname, _lname, _sex, _hdate):
        self.empId = _id
        self.dob = _dob
        self.firstName = _fname
        self.lastName = _lname
        self.gender = _sex
        self.hireDate = _hdate
    def __str__(self):
        return '{}, {}, {}, {}, {}, {}'.format(self.empId, self.dob,
                                               self.firstName, self.lastName,
                                               self.gender, self.hireDate)
    def __repr__(self):
        return 'Employee({}, {}, {}, {}, {}, {})'.format(self.empId, self.dob,
                                                         self.firstName, self.la
                                                         self.gender, self.hireI

def start():
    try:
        conn   = mysql.connector.connect(user   = 'naren',
                                         password = 'Python@7',
                                         host     = '127.0.0.1',
                                         database = 'employees')

        query  = "select * from employees limit 100"
        cursor = conn.cursor()
        cursor.execute(query)


        for rec in cursor:
            emp_list.append(Employee(*rec))

    except mysql.connector.Error as err:

        if err.errno == errorcode.ER_ACCESS_DENIED_ERROR:
            print("Name or password error! :( ")
        elif err.errno == errorcode.ER_BAD_DB_ERROR:
            print("Database doesn't exist!")
        else:
            print(err)

    else:
        cursor.close()
        conn.close()

    finally:
        print('Transaction backup has been taken successfully!')
        print('Shutting down the system')
        print("I dont leave you easily...")

if __name__ == '__main__':
    start()
```

In [ ]:

```
1 emp_list
```

In [ ]:

```
1 max(emp_list, key=lambda x: x.dob)
```

In [ ]:

```
1 sorted(emp_list, key=lambda x: x.hireDate)[:20]
```