Kennesaw State University

Department of Computer Science

CS 4720 Internet Programming

Mohammad Umar

Assignment 2

Source Code

db.py

```
import sqlite3
from os.path import join, split

def dictionary_factory(cursor, row):
    col_names = [d[0].lower() for d in cursor.description]
    return dict(zip(col_names, row))

def getConnection():
    this_dir = split(__file__)[0]
    fname = join(this_dir, 'sqlite-sakila.sq')
    conn = sqlite3.connect(fname)
    conn.row_factory = dictionary_factory  # note: no parentheses
    return conn
def do_command(cmd, args=[]):
    try:
        print("Connecting...")
        conn = getConnection()
        crs = conn.cursor()
        crs.execute(cmd, args)
        return crs.fetchall()
    finally:
        conn.close()
        print("Closed")

data = do_command("select * from actor")
```

db_access.py

```
from db import do_command

def list_of_all_stores():
    return do_command("select * from store")

def list_of_all_films():
    return do_command("select * from film order by title")

def list_of_all_inventory():
    return do_command("select * from inventory")

def inventory_for_film(film_id):
    return do_command("select * from inventory where film_id = ?", [film_id])

def inventory_for_film_for_store(film_id, store_id):
    return do_command("select * from inventory where film_id = ? and store_id
= ?", [film_id, store_id])

def count_rentals_for_film(film_id):
    invent = inventory_for_film(film_id)
    rentals = 0
    for inv in invent:
        rnt = do_command("select count(all) as cnt  from rental where
inventory_id = ?", [inv['inventory_id']])
        #print(rnt)
        rentals += rnt[0]['cnt']
    return rentals

allstores = list_of_all_stores()
print("-" * 100)
for row in allstores:
    print (row)
print("-" * 100)

allfilms = list_of_all_films()
print("-" * 100)
for row in allfilms:
    print (row)
print("-" * 100)

allinventory = list_of_all_inventory()
print("-" * 100)
for row in allinventory:
    print (row)
print("-" * 100)

inventoryforfilm = inventory_for_film(999)
print("-" * 100)
for row in inventoryforfilm:
    print (row)
print("-" * 100)

inventoryforfilmstore = inventory_for_film_for_store(999, 1)
print("-" * 100)
```

```
for row in inventoryforfilmstore:
    print (row)
print("-" * 100)

countforfilm = count_rentals_for_film(999)
print("-" * 100)
print("Film Had " + str(countforfilm) + " Rentals")
print("-" * 100)
```

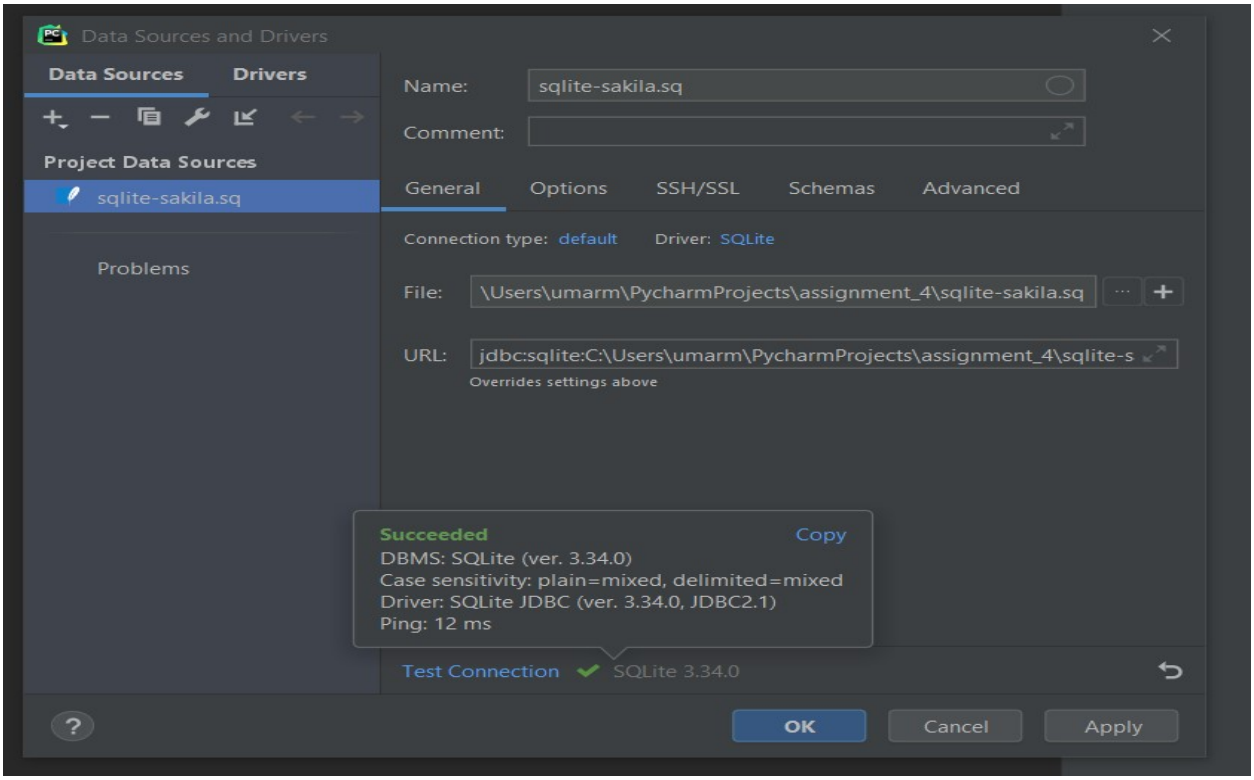
database.py

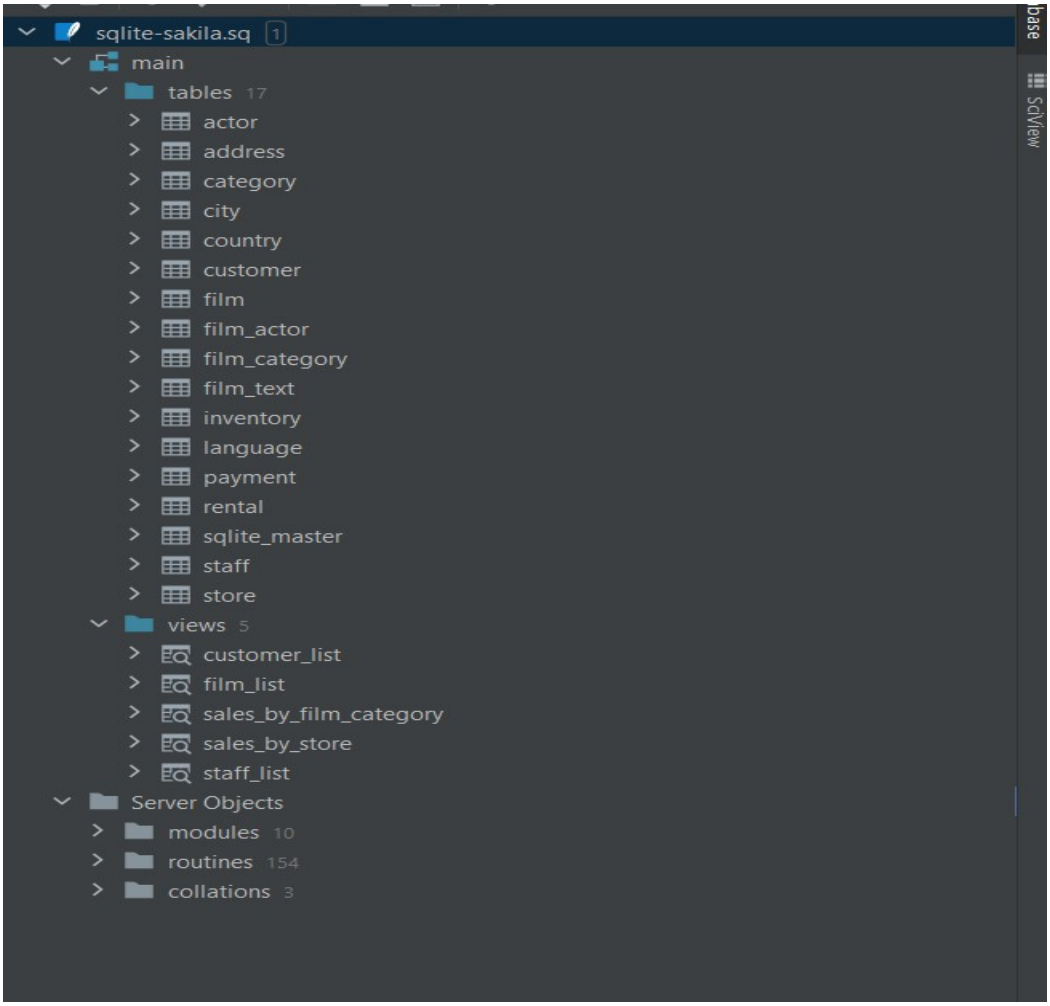
```
import sqlite3

conn= sqlite3.connect('sqlite-sakila.sq')

c=conn.cursor()

sql="select * from actor"

data = c.execute(sql)

for row in data:
    print(row)

    conn = sqlite3.connect('sqlite-sakila.sq')
    c = conn.cursor()
    sql = "select * from actor"
    data = c.execute(sql)

    for row in data:
        print(row)

    print("--" * 35)

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

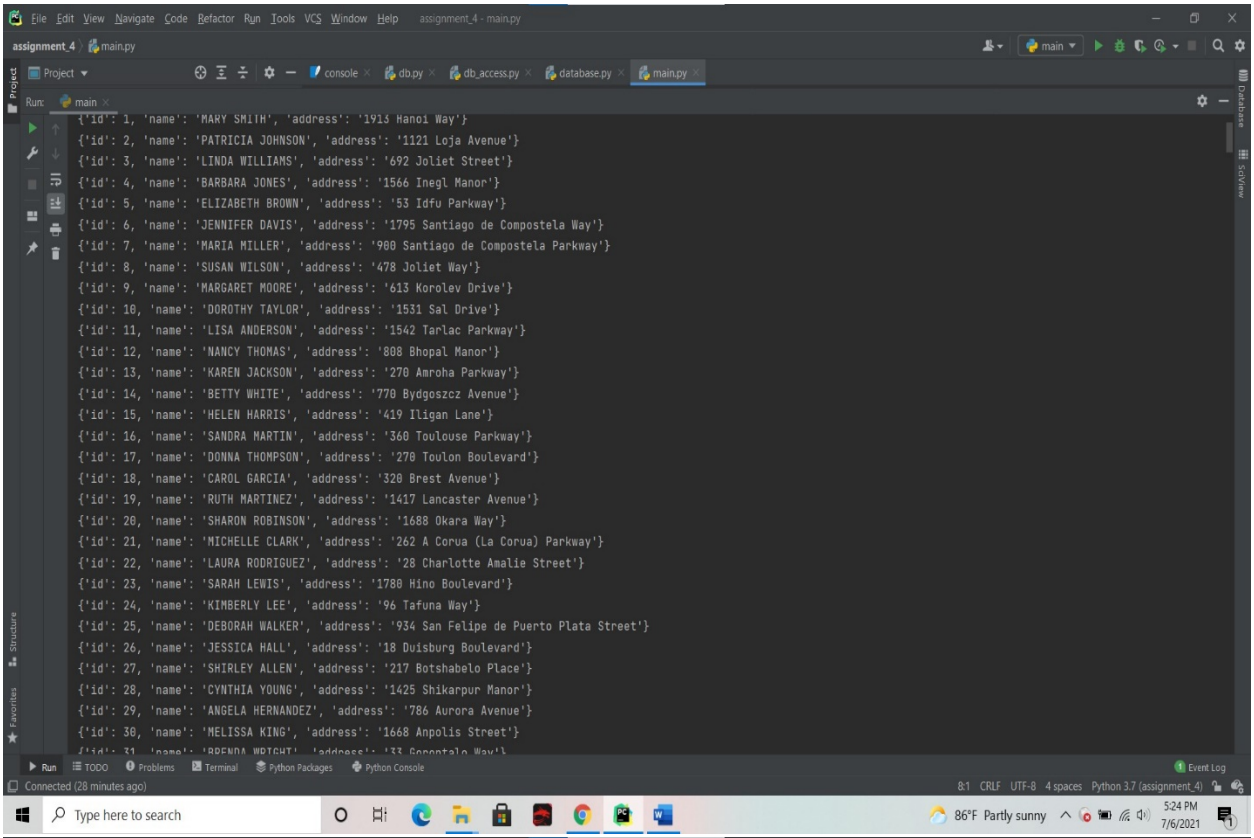
main.py

```
from db import do_command

customers = do_command("select ID, name, address from customer_list")
customer_rentals = do_command("select rental.rental_id, ID, name, address
from customer_list inner join rental on rental.customer_id=ID")


for row in customers:
     print(row)

#for row in customer_rentals:
#    print(row)
```

Screenshots






File Edit View Navigate Code Refactor Run Tools VCS Window Help assignment_4 - main.py
assignment_4 main.py
main
Project
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{'id': 6, 'name': 'JENNIFER DAVIS', 'address': '1795 Santiago de Compostela Way'}
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Type here to search
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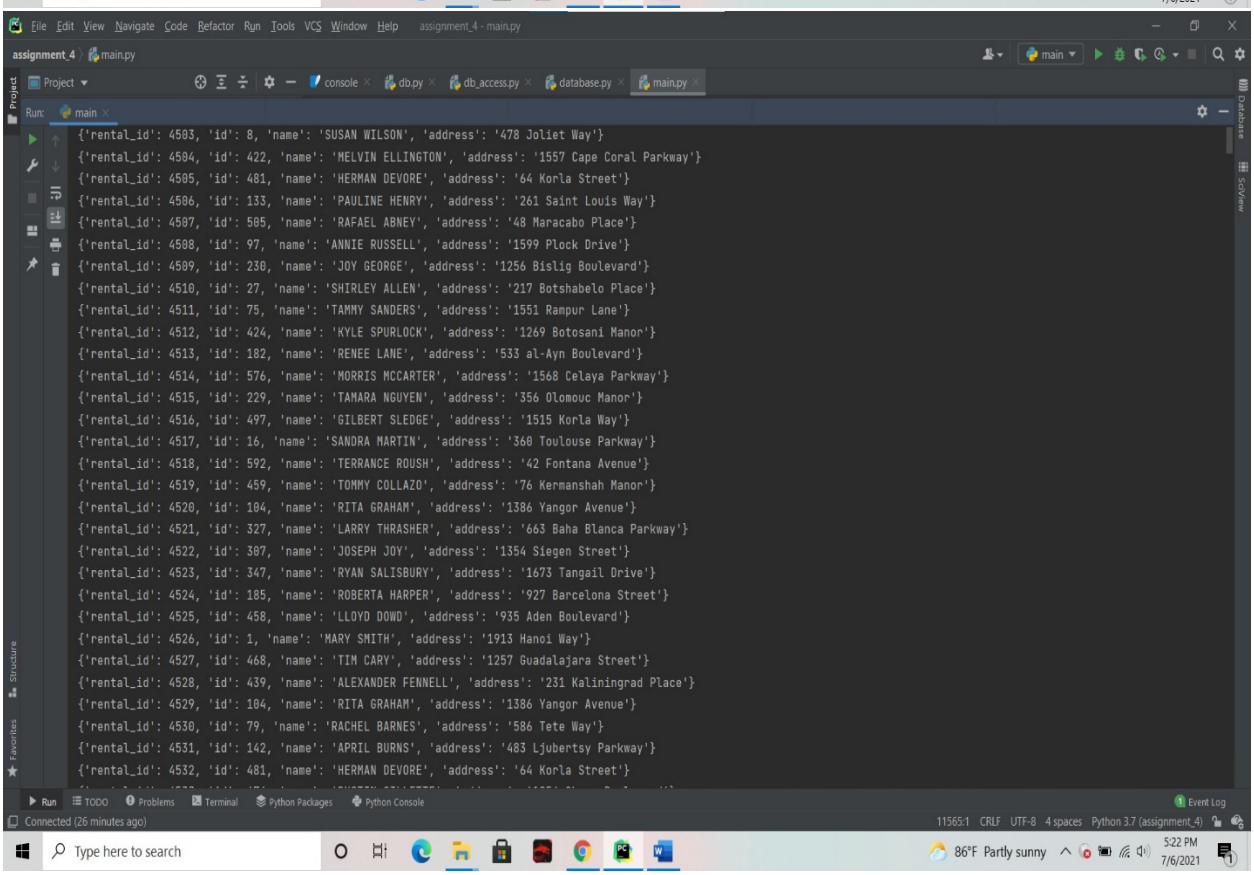
File Edit View Navigate Code Refactor Run Tools VCS Window Help assignment_4 - main.py
assignment_4 main.py
main
Project
console db.py db_access.py database.py main.py
Run: main
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Run TODO Problems Terminal Python Packages Python Console Event Log
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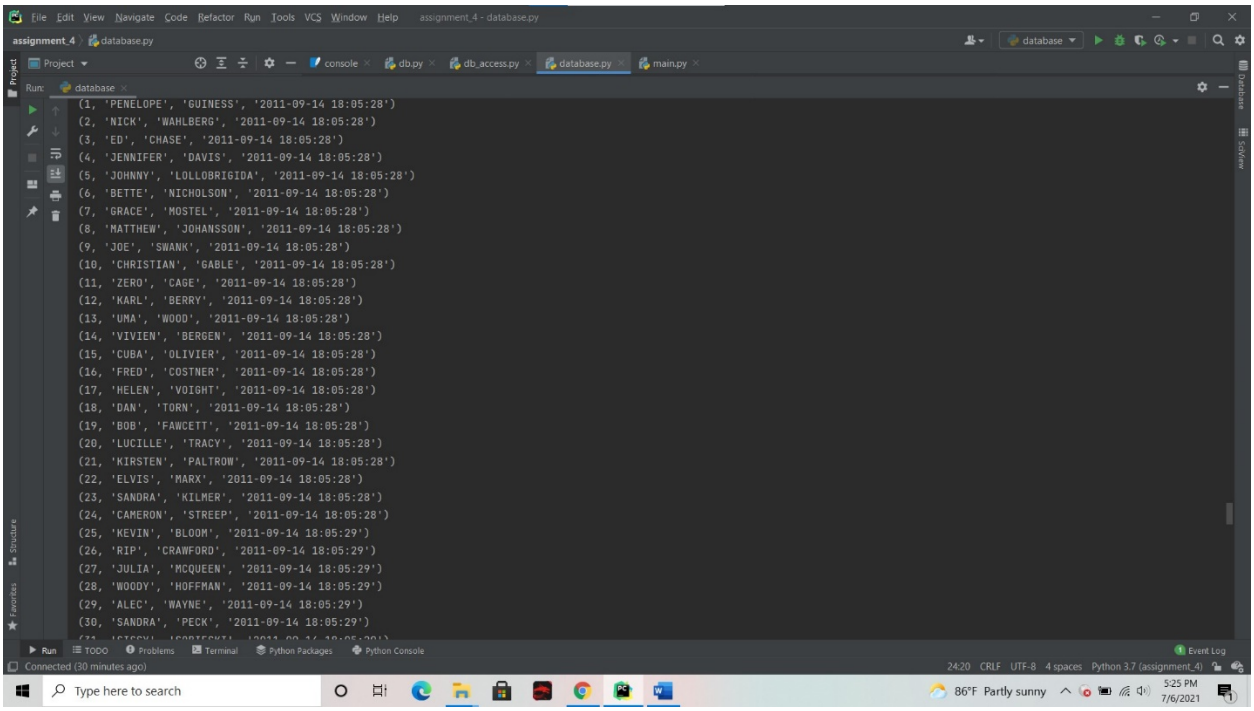
Type here to search
86°F Partly sunny
5:22 PM 7/6/2021

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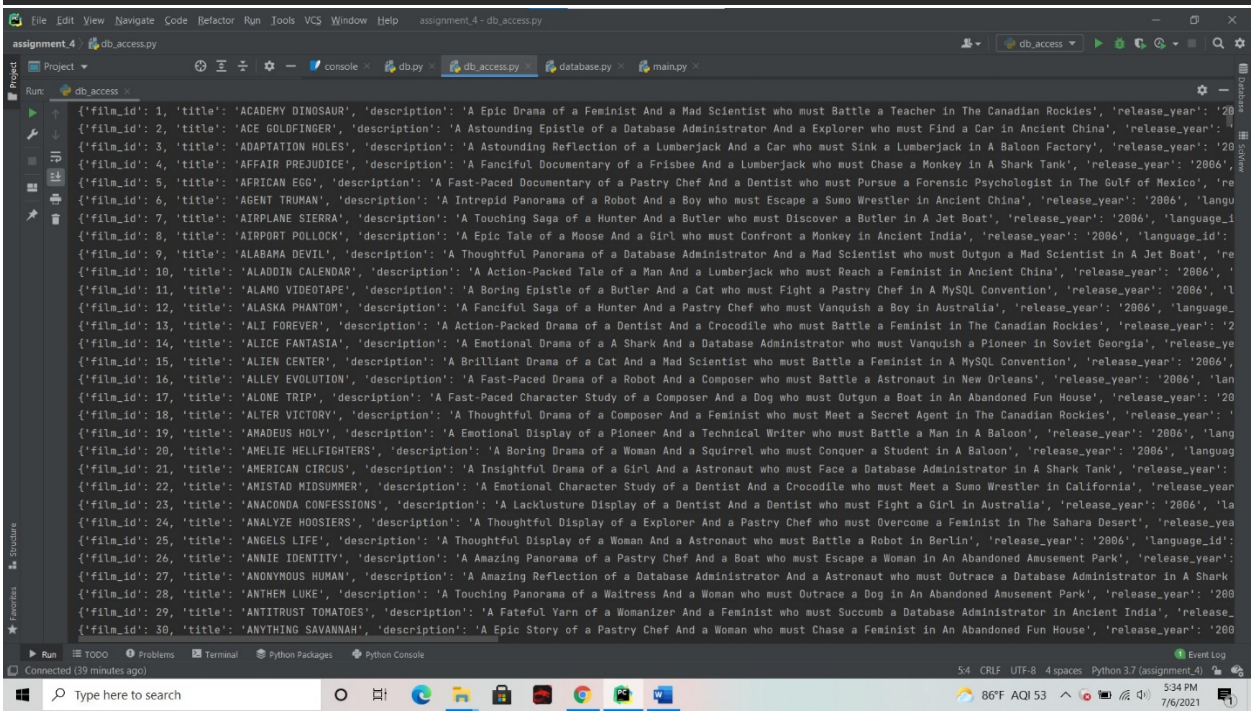


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17 Rentals
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