Project Exam 2

BUAN 6320.002 - DBM 25

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```
import mysql.connector

cnx = mysql.connector.connect(user = 'DB25',password = '123456', database = 'mydb')
v_cursor = cnx.cursor()
```

"Provide a summary of the data that includes the number of cities and number of states"

```
v_query_1 = ("SELECT count(distinct(City_Code)), count(distinct(State_name)) FROM City
INNER JOIN State ON State.State_code = City.State_code")

v_cursor.execute(v_query_1)

result1 = v_cursor.fetchall()

print (result1)
```

Python Code Element
Variable
Object Variable
Literal (Value)
Function
Operator
Class Library

```
Python 3.4.4 (v3.4.4:737efcadf5a6, Dec 20 2015, 20:20:57) [MSC v.1600 64 bit (AMD64)] on win32
Type "help", "copyright", "credits" or "license" for more information.
>>> import mysql.connector
>>> cnx = mysql.connector.connect(user ='DB25', password='123456', database='mydb')
>>> v_cursor=cnx.cursor()
>>> v_query_1=("select count(distinct(City_code)), count(distinct(State_name)) from City INNER JOIN State on State.Stat
_code = City.State_code")
>>> v_cursor.execute(v_query_1)
>>> result1=v_cursor.fetchall()
>>> print(result1)
[(13131, 51)]
>>>
```

"Determine average, minimum and maximum rent across the entire dataset"

```
v_query_2 = ("SELECT avg(Price) as average_price, min(Price) as min_price, max(Price) as
max_price from time_price WHERE time_price.Price is NOT NULL")

v_cursor.execute(v_query_2)

result2 = v_cursor.fetchall()

print(result2)
```

```
>> v_query_2 = ("SELECT avg(Price) as average_price, min(Price) as min_price, max(Price) as max_price from time_price W
ERE time_price.Price is NOT NULL")
>>
>> v_cursor.execute(v_query_2)
>> result2 = v_cursor.fetchall()
>>
>> print(result2)
(Decimal('1338.9954'), 0, 22744)]
>>
```

"Determine the average, minimum and maximum price per sq ft across the entire dataset"

```
v_query_3 = ("SELECT avg(Pricepersqft) , min(Pricepersqft) , max(Pricepersqft)  from time_price WHERE Pricepersqft is NOT NULL")

v_cursor.execute(v_query_3)

result3 = v_cursor.fetchall()

print(result3)
```

```
>>> v_query_3 = ("SELECT avg(Pricepersqft) , min(Pricepersqft) , max(Pricepersqft)  from time_price WHERE Pricepersqft i
s NOT NULL")
>>> v_cursor.execute(v_query_3)
>>>
>>> result3 = v_cursor.fetchall()
>>>
>>> print(result3)
[(Decimal('0.9287'), Decimal('0'), Decimal('6'))]
>>>
```

"What is the average price per sq ft in NY state?"

```
v_query_4 = ('SELECT avg(time_price.Pricepersqft) FROM time_price JOIN City ON City.City_code = time_price.City_City_code JOIN State ON State.State_code = City.State_code where State.State_name = "NY";')

v_cursor.execute(v_query_4)

result4 = v_cursor.fetchall()

print(result4)
```

```
Question 4: What is the average price per sq ft in NY state?
[(Decimal('1.034488602'),)]
```

"How many metros have price per sq ft greater than the above average?"

```
v_query_5 = ("SELECT count(Metro.Metro_code) FROM Metro JOIN City_Metro ON City_Metro.Metro_code = Metro.Metro_code JOIN City ON City.City_code = City_Metro.City_code JOIN time_price ON time_price.City_City_code = City.City_code WHERE time_price.Pricepersqft > (SELECT avg(Pricepersqft) from time_price)")

v_cursor.execute(v_query_5)

result5 = v_cursor.fetchall()

print(result5)
```

```
Question 5: How many metros have price per sq ft greater than the above average?
[(455146,)]
```

“What are the names of the metros and the cities they are in?”

```
v_query_6 = ("select City.City_name, Metro.Metro_name from City JOIN City_Metro ON City_Metro.City_code = City.City_code JOIN Metro On Metro.Metro_code = City_Metro.Metro_code WHERE City_Metro.Metro_code is NOT NULL”)

v_cursor.execute(v_query_6)

result6 = v_cursor.fetchall()

print(result6)
```

```
Question 6: What are the names of the metros and the cities they are in?
[('New York', 'New York'), ('Newark', 'New York'), ('Jersey City', 'New York'), ('Yonkers', 'New York'), ('Paterson', 'New York'), ('Elizabeth', 'New York'), ('Edison', 'New York'), ('Lakewood Township', 'Ne
rk'), ('Toms River', 'New York'), ('Clifton', 'New York'), ('Town of Poughkeepsie', 'New York'), ('New Rochelle', 'New York'), ('Brick', 'New York'), ('Passaic', 'New York'), ('Union City', 'New York'), ('Ea
range', 'New York'), ('Mount Vernon', 'New York'), ('North Bergen', 'New York'), ('Valley Stream', 'New York'), ('White Plains', 'New York'), ('Town of Hempstead', 'New York'), ('Freehold Township', 'New Yor
 ('Irvington', 'New York'), ('Wayne', 'New York'), ('Jackson', 'New York'), ('Union', 'New York'), ('Piscataway Township', 'New York'), ('Town of Newburgh', 'New York'), ('New Brunswick', 'New York'), ('Pars
ny-Troy Hills Township', 'New York'), ('West New York', 'New York'), ('Plainfield', 'New York'), ('Hoboken', 'New York'), ('West Orange', 'New York'), ('Old Bridge Township', 'New York'), ('Massapequa', 'New
k'), ('East Brunswick', 'New York'), ('Perth Amboy', 'New York'), ('Bloomfield', 'New York'), ('Hackensack', 'New York'), ('Manchester', 'New York'), ('Freeport', 'New York'), ('Linden', 'New York'), ('Kearn
'New York'), ('North Brunswick', 'New York'), ('Levittown', 'New York'), ('Elmont', 'New York'), ('Franklin Township', 'New York'), ('Hillsborough', 'New York'), ('Teaneck', 'New York'), ('Hicksville', 'New
'), ('Great Neck', 'New York'), ('Montclair', 'New York'), ('East Meadow', 'New York'), ('Monroe Township', 'New York'), ('Fort Lee', 'New York'), ('Howell', 'New York'), ('Belleville', 'New York'), ('Merric
```

“Which metro(s) in the state had the highest increase in price per sq ft between September 2015 and September 2016?”

```
v_query_7 = (“select(max(time_price.Pricepersqft) - min(time_price.Pricepersqft)) as highest_difference, Metro.Metro_name, State.State_name FROM time_price join City on City.City_code = time_price.City_City_code join City_Metro on City_Metro.City_code = City.City_code join Metro on Metro.Metro_code = City_Metro.Metro_code JOIN State ON State.State_code = City.State_code WHERE time_price.Time_period BETWEEN "15-Sep" AND "16-Sep";’)

v_cursor.execute(v_query_7)

result7 = v_cursor.fetchall()

print(result7)
```

```
ennington'), ('Shaftsbury', 'Bennington'), ('Stamford', 'Bennington'), ('Vineyard Haven', 'Vineyard Haven'), ('Fairfield', 'Fairfield')
Question 7: Which metro(s) in the state had the highest increase in price per sq ft between September 2015 and September 2016?
[(Decimal('6.48600'), 'New York', 'NY')]
```

```
v_cursor.close()
cnx.close()
```