

Chitramoy Mukherjee

DSC 540-T302

Week-11 and Week-12

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Activity - 11

Connect to the supplied petsDB, and write a function to check if the connection is done.

Find different age groups in the persons database.

Find the age group that has maximum number of people.

Find the people who do not have a last name.

Find out how many people have more than one pet

Find out how many pets have received treatment.

Find out how many pets have received treatment and the type of pet is known.

Find how many pets are from city called east port.

Find out how many pets are from the city called east port and who received a treatment.

```
In [30]: # Load necessary Libraries

import sqlite3

conn = sqlite3.connect("C:\\Users\\14024\\OneDrive\\Desktop\\MS-DSC\\DSC-540\\Week-12\\p

def connect_to_database(database_path):
    try:
        # Connect to the SQLite database
        connection = sqlite3.connect(database_path)
        print("Connected to the database successfully.")
        return connection
    except sqlite3.Error as e:
```

```
print(f"Error connecting to the database: {e}")
return None

database_path = 'C:\\Users\\14024\\OneDrive\\Desktop\\MS-DSC\\DSC-540\\Week-12\\petsdb.sqlite'
connection = connect_to_database(database_path)

# Check if the connection is successful
if connection:
    # Close the connection when done
    connection.close()
    print("Connection closed.")
else:
    print("Connection failed.")
```

Connected to the database successfully.
Connection closed.

In [31]: `print(is_opened(connection))`

Connection closed Cannot operate on a closed database.
False

In [45]: `# Find different age groups in the persons database`

```
for people, age in c.execute("SELECT count(*), age FROM persons GROUP BY age"):
    print("Count of people is {} of age {}".format(pp1, age))
```

Count of people is 3 of age 5
Count of people is 3 of age 6
Count of people is 3 of age 7
Count of people is 3 of age 8
Count of people is 3 of age 9
Count of people is 3 of age 11
Count of people is 3 of age 12
Count of people is 3 of age 13
Count of people is 3 of age 14
Count of people is 3 of age 16
Count of people is 3 of age 17
Count of people is 3 of age 18
Count of people is 3 of age 19
Count of people is 3 of age 22
Count of people is 3 of age 23
Count of people is 3 of age 24
Count of people is 3 of age 25
Count of people is 3 of age 27
Count of people is 3 of age 30
Count of people is 3 of age 31
Count of people is 3 of age 32
Count of people is 3 of age 33
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Count of people is 3 of age 35
Count of people is 3 of age 36
Count of people is 3 of age 37
Count of people is 3 of age 39
Count of people is 3 of age 40
Count of people is 3 of age 42
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Count of people is 3 of age 49
Count of people is 3 of age 50
Count of people is 3 of age 51
Count of people is 3 of age 52
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Count of people is 3 of age 61
Count of people is 3 of age 62
Count of people is 3 of age 63
Count of people is 3 of age 65
Count of people is 3 of age 66
Count of people is 3 of age 67
Count of people is 3 of age 68
Count of people is 3 of age 69
Count of people is 3 of age 70
Count of people is 3 of age 71
Count of people is 3 of age 72
Count of people is 3 of age 73
Count of people is 3 of age 74

```
In [50]: # Find the age group that has maximum number of people  
  
for people, age in c.execute("SELECT count(*), age FROM persons GROUP BY age ORDER BY  
    print("Highest number of people {} came from {} age group".format(people, age))
```

Highest number of people 5 came from 73 age group

In [52]: *#Find the people who do not have a Last name*

```
cnt = c.execute("SELECT count(*) FROM persons WHERE last_name IS null")
for row in cnt:
    print(row)
```

(60,)

In [56]: *# Find out how many people have more than one pet*

```
cnt = c.execute("SELECT count(*) FROM (SELECT count(owner_id) FROM pets GROUP BY owner_id) WHERE count > 1")
for row in cnt:
    print("{} People have more than one pet".format(row[0]))
```

43 People have more than one pet

In [58]: *# Find out how many pets have received treatment (treatment_done should have 1)*

```
cnt = c.execute("SELECT count(*) FROM pets WHERE treatment_done=1")
for row in cnt:
    print(row)
```

(36,)

In [60]: *# Find out how many pets have received treatment and the type of pet is known (treatment_done is not null and pet_type is not null)*

```
cnt = c.execute("SELECT count(*) FROM pets WHERE treatment_done=1 AND pet_type IS NOT NULL")
for row in cnt:
    print(row)
```

(16,)

In [61]: *# Find how many pets are from city called east port*

```
cnt = c.execute("SELECT count(*) FROM pets JOIN persons ON pets.owner_id = persons.id WHERE city = 'East Port'")
for row in cnt:
    print(row)
```

(49,)

In [62]: *# Find out how many pets are from the city called east port and who received a treatment*

```
cnt = c.execute("SELECT count(*) FROM pets JOIN persons ON pets.owner_id = persons.id WHERE city = 'East Port' AND treatment_done = 1")
for row in cnt:
    print(row)
```

(11,)