Week_9_10

August 9, 2023

Connect to the **petsDB** and check whether the connection has been successful

[1]:
```
import sqlite3
```

[6]:
```
def chk_conn(conn):
     try:
        conn.cursor()
        return "Connection Successful"
     except Exception as ex:
        return "Connection Failed"
```

[9]:
```
conn = sqlite3.connect('petsdb')
print(chk_conn(conn))
```

```
Connection Successful
```

Find the different age groups in the persons database

[11]:
```
import pandas as pd
```

[10]:
```
cursor = conn.cursor()
```

[15]:
```
age_groups = pd.read_sql_query("""
    Select
    count(*) as NumberOfPeople,
    age
    From
        Persons
    Group By age
    """,
                          conn)
age_groups.head()
```

[15]:

	NumberOfPeople	age
0	2	5
1	1	6
2	1	7
3	3	8
4	1	9

Find the age of the group that has the maximum number of people.

[16]:
```
age_groups.max()
```

[16]:
```
NumberOfPeople     5
age               74
dtype: int64
```

Find the people who do not have a last name

[17]:
```
no_last_name = pd.read_sql_query("""
    Select
        *
    From
        Persons
    Where last_name IS NULL;
    """,
                         conn)
no_last_name.head()
```

[17]:

	id	first_name	last_name	age	city	zip_code
0	1	Erica	None	22	south port	2345678
1	2	Jordi	None	73	east port	123456
2	3	Chasity	None	70	new port	76856785
3	4	Gregg	None	31	new port	76856785
4	6	Cary	None	73	new port	76856785

[19]:
```
print('People with no last name:', len(no_last_name))
```

```
People with no last name 60
```

Find out how many people have more than one pet

[24]:
```
people_w_pets = pd.read_sql_query("""
    SELECT
        *
    From
        Pets
    GROUP BY owner_id HAVING count(owner_id) >1
    """,
                         conn)
people_w_pets.head()
```

[24]:

	owner_id	pet_name	pet_type	treatment_done
0	2	mani	1.0	0
1	5	fenga	NaN	0
2	6	milu	1.0	0
3	7	olga	1.0	0
4	9	gimir	NaN	0

[27]:
```
print("Number of people with more than one pet:", len(people_w_pets))
```

```
Number of people with more than one pet: 43
```

Find out how many pets have received treatment

[30]:
```
treatment = pd.read_sql_query("""
    SELECT
        *
    From
        Pets
    Where treatment_done = 1
    """,
                        conn)
treatment.head()
```

[30]:

	owner_id	pet_name	pet_type	treatment_done
0	46	raba	NaN	1
1	94	snoopy	1.0	1
2	100	bulga	NaN	1
3	16	fenga	1.0	1
4	31	chegal	1.0	1

[34]:
```
print("Number of pets who have received treatment:", len(treatment))
```

```
Number of pets who have received treatment: 36
```

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

[32]:
```
treatments = pd.read_sql_query("""
    SELECT
        *
    From
        Pets
    Where treatment_done = 1
    AND pet_type IS NOT null
    """,
                        conn)
treatments.head()
```

[32]:

	owner_id	pet_name	pet_type	treatment_done
0	94	snoopy	1.0	1
1	16	fenga	1.0	1
2	31	chegal	1.0	1
3	6	deru	1.0	1
4	69	raba	1.0	1

[35]:
```
print("Number of pets who have received treatment and the pet is known:",␣
↪len(treatments))
```

```
Number of pets who have received treatment and the pet is known: 16
```

Find out how many pets are from the cirt called **east port**

[36]:
```
east_port = pd.read_sql_query("""
    SELECT
        *
    From
        Pets
    Join persons on pets.owner_id = persons.id
    Where persons.city = 'east port'
    """,
                        conn)
east_port.head()
```

[36]:

	owner_id	pet_name	pet_type	treatment_done	id	first_name	last_name	age	city	zip_code
0	2	gimir	1.0	0	2	Jordi	None	73	east port	123456
1	2	mani	1.0	0	2	Jordi	None	73	east port	123456
2	2	tamari	NaN	1	2	Jordi	None	73	east port	123456
3	9	gimir	NaN	0	9	Katelyn	Torphy	49	east port	9756543
4	9	palu	1.0	0	9	Katelyn	Torphy	49	east port	9756543

[37]:
```
print("Number of pets in east port:", len(east_port))
```

```
Number of pets in east port: 49
```

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

[38]:
```
east_port_treatment = pd.read_sql_query("""
    SELECT
        *
    From
        Pets
    Join persons on pets.owner_id = persons.id
    Where persons.city = 'east port'
    AND pets.treatment_done = 1
    """,
                        conn)
east_port_treatment.head()
```

[38]:

	owner_id	pet_name	pet_type	treatment_done	id	first_name	last_name	age
0	2	tamari	NaN	1	2	Jordi	None	73

```
1         23   snoopy       1.0                1  23    Maynard      None   25
2         24    fenga       NaN                1  24     Dorian      None   40
3         35     dara       1.0                1  35    Maritza      None   73
4         45     sami       NaN                1  45    Alfonzo      None   16

         city  zip_code
0  east port    123456
1  east port    123456
2  east port    123456
3  east port   9756543
4  east port   2345678
```

[39]:
```
print("Number of pets in east port and received treatment:",␣
 ↪len(east_port_treatment))
```

```
Number of pets in east port and received treatment: 11
```