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CDS 302-DL1

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Assignment 7

Imports

In [1]:

```
import sqlite3 as sql
import pandas as pd
import numpy as np
```

In [2]:

```
# Start the connection to a local database called onlineStore.
# (I could easily change this to be somewhere either on my network
# or on another network if I wanted to, but its out of the scope of
# this homework assignment)
db = sql.connect('onlinestore.db');
```

In [3]:

```
# creating the product table query. Made it look like how it would be in SQL itself:
query = '''
CREATE TABLE IF NOT EXISTS products(
    id int PRIMARY KEY NOT NULL,
    size varchar(10),
    price int,
    vend_name varchar(10));
'''
```

In [4]:

```
# Execute the product table creation
result = db.execute(query);
df = pd.read_sql_query('SELECT * FROM products',db);
df
```

Out[4]:

id	size	price	vend_name

In [5]:

```
# Create the Item table query.
query = '''
CREATE TABLE IF NOT EXISTS Item (
    id int NOT NULL,
    quantity int NOT NULL,
    o_id int NOT NULL,
    PRIMARY KEY (id, quantity)
);
'''
```

In [6]:

```
# Execute the Item table creation
result = db.execute(query);
df2 = pd.read_sql_query('SELECT * FROM Item',db);
df2
```

Out[6]:

id	quantity	o_id

In [7]:

```
# Create the Orders table query
query = '''
CREATE TABLE IF NOT EXISTS Orders (
    o_id int PRIMARY KEY NOT NULL,
    date varchar(20) NOT NULL,
    emp_id int,
    prep_date varchar(20),
    cust_id int
);
'''
```

In [8]:

```
# Execute the Orders table creation
result = db.execute(query);
df3 = pd.read_sql_query('SELECT * FROM Orders',db);
df3
```

Out[8]:

o_id	date	emp_id	prep_date	cust_id

In [9]:

```
# Create the Employees table query
query = '''
CREATE TABLE IF NOT EXISTS Employee (
    emp_id int PRIMARY KEY NOT NULL,
    firstname varchar(20) NOT NULL,
    middlename varchar(20),
    lastname varchar(20) NOT NULL,
    salary int,
    supervisor_id int
);
'''
```

In [10]:

```
# Execute the Orders table creation
result = db.execute(query);
df4 = pd.read_sql_query('SELECT * FROM Employee',db);
df4
```

Out[10]:

emp_id	firstname	middlename	lastname	salary	supervisor_id

In [11]:

```
# Set the queries for entry into Employee table

query = '''
    INSERT INTO Employee VALUES ('0001','Riley','Christopher','Payung','90000','');
'''
query2 = '''INSERT INTO Employee VALUES ('0002','Jack','Greg','Chapman','25000','0001');
'''
```

In [12]:

```
# execute query 1
result = db.execute(query);
print(result.fetchall());
# execute query 2
result = db.execute(query2);
print(result.fetchall());
```

```
[]
[]
```

In [13]:

```
# Print out the current state of the Employee table
df5 = pd.read_sql_query('SELECT * FROM Employee',db);
df5
```

Out[13]:

	emp_id	firstname	middlename	lastname	salary	supervisor_id
0	1	Riley	Christopher	Payung	90000	
1	2	Jack	Greg	Chapman	25000	1

In [14]:

```
# Set the queries for entry into Products table
query = '''
    INSERT INTO Products VALUES ('0001','Medium','15','G Solutions');
'''
query2 = '''
    INSERT INTO Products VALUES ('0002','Small','13','Hammerhead');
'''
```

In [15]:

```
# execute query 1
result = db.execute(query);
print(result.fetchall());
# execute query 2
result = db.execute(query2);
print(result.fetchall());
```

```
[]
[]
```

In [16]:

```
# Print out the current state of the Products table
df6 = pd.read_sql_query('SELECT * FROM Products',db);
df6
```

Out[16]:

	id	size	price	vend_name
0	1	Medium	15	G Solutions
1	2	Small	13	Hammerhead

In [17]:

```
# Set the queries for entry into Item table
query = '''
    INSERT INTO Item VALUES ('0001','5','0001');
'''
query2 = '''
    INSERT INTO Item VALUES ('0002','10','0001');
'''
```

In [18]:

```
# execute query 1
result = db.execute(query);
print(result.fetchall());
# execute query 2
result = db.execute(query2);
print(result.fetchall());
```

```
[]
[]
```

In [19]:

```
# Print out the current state of the Item table
df7 = pd.read_sql_query('SELECT * FROM Item',db);
df7
```

Out[19]:

	id	quantity	o_id
0	1	5	1
1	2	10	1

In [20]:

```
# Set the queries for entry into Orders table
query = '''
    INSERT INTO Orders VALUES ('0001','Jan-20-2020','0002','Jan-21-2020','0001');
'''
query2 = '''
    INSERT INTO Orders VALUES ('0002','Jan-25-2020','0001','Jan-28-2020','0002');
'''
```

In [21]:

```
# execute query 1
result = db.execute(query);
print(result.fetchall());
# execute query 2
result = db.execute(query2);
print(result.fetchall());
```

```
[]
[]
```

In [22]:

```
# Print out the current state of the Orders table
df8 = pd.read_sql_query('SELECT * FROM Orders',db);
df8
```

Out[22]:

	o_id	date	emp_id	prep_date	cust_id
0	1	Jan-20-2020	2	Jan-21-2020	1
1	2	Jan-25-2020	1	Jan-28-2020	2

In [23]:

```
# Commit all changes made to the database.
db.commit();
```

In [24]:

```
# Select the product tuples from products using the fetchall function.
result = db.execute('SELECT * FROM products');
print(result.fetchall());
```

```
[(1, 'Medium', 15, 'G Solutions'), (2, 'Small', 13, 'Hammerhead')]
```

In [25]:

```
# Create the data frame of employes
df_employee = pd.read_sql_query('SELECT * FROM Employee',db);
df_employee
```

Out[25]:

	emp_id	firstname	middlename	lastname	salary	supervisor_id
0	1	Riley	Christopher	Payung	90000	
1	2	Jack	Greg	Chapman	25000	1

In [26]:

```
# Create the csv file of the data frame Employees
df_csv = df_employee.to_csv('df_csv.csv');
print(df_csv);
```

```
None
```

In [27]:

```
# Read the employees csv file (df_csv) to create a data frame.
df_employee2 = pd.read_csv('df_csv.csv');
df_employee2
```

Out[27]:

	Unnamed: 0	emp_id	firstname	middlename	lastname	salary	supervisor_id
0	0	1	Riley	Christopher	Payung	90000	NaN
1	1	2	Jack	Greg	Chapman	25000	1.0

In [28]:

```
# Closing the local connection after everything has been finished.
db.close()
```

In [ ]:

```

```