Pycoders - DatabaseModule-Week12

2- 'class4' database olusturun (M). Database silin (M). Ayni database yine olusturun (K)

create database class4

3- https://www.postgresqltutorial.com/postgresql-sample-database/ adresine gidin ve ER modeli inceleyin. Tablolar arasindaki en az 5 iliskiyi yazin.(Hangi tablolar arasinda ne tur bir iliski var)

1. film ve film\_category tablolari, “one to one” iliski
2. film, Language tablolari “one to many” iliski
3. customer, address tablolari, “one to one” iliski
4. city id, address tablolari, “one to one” iliski
5. customer, payment tablolari, “one to many” iliski

4- ER modeldeki tablolardan 3 tanesini M olusturun.

5- ER modeldeki tablolardan 3 tanesini K olusturun

|  |  |  |
| --- | --- | --- |
| -- CREATE TABLE actor ( | | |
| -- actor\_id serial PRIMARY KEY, | | | | | | |
| -- first\_name VARCHAR ( 50 ) Not NULL, | | | | | | |
| -- last\_name VARCHAR ( 50 ) NOT NULL, | | | | | | |
| -- lasT\_update TIMESTAMP | | | | | | |
| -- ); | | | | | | |
| -- CREATE TABLE film\_actor ( | |
| -- actor\_id serial, | | | | | |
| -- film\_id serial, | | | | | |
| -- last\_login TIMESTAMP , | | | | | |
| -- Foreign Key(actor\_id) References actor(actor\_id), | | | | | |
| -- Foreign Key(film\_id) References film(film\_id) | | | | | |
| -- ); | | | | | |
| CREATE TABLE customer\_id ( |
| customer\_id INT NOT NULL, | | | |
| store\_id INT NOT NULL, | | | |
| first\_name VARCHAR ( 50 ) Not NULL, | | | |
| last\_name VARCHAR ( 50 ) NOT NULL, | | | |
| email VARCHAR ( 50 ) NOT NULL, | | | |
| address\_id Int NOT NULL, | | | |
| activebool bool NOT NULL, | | | |
| create\_date Timestamp NOT NULL, | | | |
| last\_update TimeStamp, | | | | |
| active bool | | | | |
| ); | | | | |

6- ER modeldeki tablolardan 3 tanesini C olusturun.

import psycopg2  
  
conn = psycopg2.connect(  
 "dbname='class4' user='postgres' password='Denizli20'")  
  
cur = conn.cursor()  
  
cur.execute("""Create table inventory (  
 inventory\_id integer Primary key not null,  
 film\_id integer not null,  
 store\_id integer not null,  
 last\_update date not null  
 )""")  
  
cur.execute("""Create table stapaymentff (  
 payment\_id integer Primary key not null,  
 customer\_id integer not null,  
 staff\_id integer,  
 rental\_id integer null,  
 amount varchar(40) not null,  
 payment\_date timestamp not null  
 )""")  
  
cur.execute("""Create table staff (  
 stafF\_id integer,  
 first\_name varchar(20) not null,  
 last\_name varchar(20) not null,  
 address\_id integer null,  
 email varchar(40) not null  
 )""")  
  
cur.close()  
conn.commit()  
conn.close()

7. Olusturdugunuz 3 tabloya M ile 5 veri girisi yapin

8. Olusturdugunuz tabloya K ile 5 veri girisi yapin

-TABLO 1

insert into customer(customer\_id, first\_name, last\_name, last\_update)

VALUES

('1', 'Veli', 'Kale', '8-4-2021'),

('2', 'Mehmet', 'Ates', '3-4-2021'),

('3', 'Ayse', 'Kara', '3-4-2021'),

('4', 'Fadime', 'Beyaz', '3-4-2021'),

('5', 'Hasan', 'Sari', '3-4-2021')

-TABLO 2

insert Into inventory (inventory\_id, film\_id, store\_id, last\_update) values(1, 2,2,'11/12/2020');

insert Into inventory (inventory\_id, film\_id, store\_id, last\_update) values(2, 5,1,'11/12/2020');

insert Into inventory (inventory\_id, film\_id, store\_id, last\_update) values(3, 4,5,'11/12/2020');

insert Into inventory (inventory\_id, film\_id, store\_id, last\_update) values(4, 3,3,'11/12/2020');

insert Into inventory (inventory\_id, film\_id, store\_id, last\_update) values(5, 2,4,'11/12/2020');

9. Olusturdugunuz 3 tabloya C ile 5 veri girisi yapin.

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" insert into language(language\_id, name, last\_update)  
VALUES  
 ('1', 'English', '8-4-2021'),  
 ('2', 'Spanish', '8-4-2021'),  
 ('3', 'Turkish', '8-4-2021'),  
 ('4', 'Farsi', '8-4-2021'),  
 ('5', 'Russian', '8-4-2021')  
"""  
)  
cur.close()  
conn.commit()  
conn.close()

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" insert into staff(staff\_id, first\_name, last\_name, address\_id, email)  
VALUES  
 ('1', 'Ahmet', 'Kara', 2, 'ahmetkara@test'),  
 ('2', 'Fatma', 'tut', 2, 'fatmatut@test'),  
 ('3', 'Selim', 'taslik', 2, 'taslik@test'),  
 ('4', 'Kerim', 'Hali', 2, 'hali@test'),  
 ('5', 'Yavuz', 'ada', 2, 'yavuz@test')  
"""  
)  
cur.close()  
conn.commit()  
conn.close()

10. 3 tablodaki birer veriyi M ile degistirin

11.3 tablodaki birer veriyi K ile degistirin.

UPDATE customer

SET first\_name = 'Halit'

WHERE customer\_id = 1

RETURNING \*;

UPDATE language

SET last\_update = '12-12-2021'

WHERE language\_id = 2

RETURNING \*;

Update actor set last\_name='Arkin' where actor\_id=3;

12.3 tablodaki birer veriyi K ile degistirin.

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" UPDATE actor  
SET last\_update = '12-12-2021'  
WHERE actor\_id = 2  
"""  
)  
cur.close()  
conn.commit()  
conn.close()

13. 3 tablonun son satirini M ile silin.

14. 3 tablonun son satirini K ile silin.

DELETE FROM actor

WHERE actor\_id = (

SELECT MAX (actor\_id)

FROM actor

);

15. 3 tablonun son satirini C ile silin.

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" DELETE FROM customer  
WHERE customer\_id = (  
 SELECT MAX (customer\_id)  
 FROM customer  
);"""  
)  
cur.close()  
conn.commit()

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" DELETE FROM actor  
WHERE actor\_id = (  
 SELECT MAX (actor\_id)  
 FROM actor  
);"""  
)  
cur.close()  
conn.commit()

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" DELETE FROM language  
WHERE language\_id = (  
 SELECT MAX (language\_id)  
 FROM language  
);"""  
)  
cur.close()  
conn.commit()

16. 1 tabloyu M ile silin

17. 1 tabloyu K ile silin.

drop table stapaymentff

18. 1 tabloyu C ile silin.

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" drop table film\_actor"""  
)  
cur.close()  
conn.commit()

19. Kalan tablolardan 1 tanesinin 2 veya 3 sutununu K ile baska bir tablo olarak olusturun.

CREATE TABLE new\_table AS

SELECT (first\_name), (last\_name) FROM customer;

20. Kalan tablolardan 1 tanesinin 2 veya 3 sutununu C ile baska bir tablo olarak olusturun.

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" CREATE TABLE new\_table2 AS  
 SELECT (first\_name), (last\_name) FROM customer;"""  
)  
cur.close()  
conn.commit()  
conn.close()

21. Tablolardan 1 tanesini M ile truncate edin.

22. Tablolardan 1 tanesini K ile truncate edin

truncate table new\_table2

23. Tablolardan 1 tanesini C ile truncate edin.

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
"""truncate table new\_table2"""  
)  
cur.close()  
conn.commit()  
conn.close()

24. Truncate edilmis tablolari M ile silin

25. 2 tabloyu K ile silin

drop table new\_table2

drop table new\_table

26. 2 tabloyu C ile silin.

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" drop table staff"""  
)  
cur.close()  
conn.commit()  
conn.close()

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" drop table inventory"""  
)  
cur.close()  
conn.commit()  
conn.close()

27. Elimizde veri olan 1 tablo kalmis olmasi lazim. Bu tabloyu csv olarak bilgisayariniza yukleyin.

28. Postgresql arayuzundeki son tabloyu da K ile silin.

drop table customer

29.Bilgisayarinizdaki csv yi arayuze import edin.

30. Import ettiginiz bu tabloyu C ile silin

import psycopg2  
conn = psycopg2.connect("dbname=class4 user=postgres password=Denizli20")  
cur = conn.cursor()  
cur.execute(  
""" drop table actor"""  
)  
cur.close()  
conn.commit()  
conn.close()

31. https://www.postgresqltutorial.com/postgresql-sample-database/ linkindeki ornek DB yi bilgisayariniza indirin ve arayuze yukleyin.

32. DB nizde 15 adet tablo olmasi lazim. Her tabloyu teker teker goruntuleyin ve kolon isimlerine bakarak, 5 tabloda hangi kolonun PK ve FK oldugunu yazin.

Adress tablosu- adress\_id PK, city\_id FK

Actor tablosu- actor\_id PK,

Category tablosu category\_id PK

City tablosu ciy\_id PK, country\_id FK

Country tablosu country\_id PK

33. Sorgular? (Asagidaki sorularin cevaplarini ve bu cevabi bulurken kullandiginiz kodlari yazin)

34. Action filmlerinin ortalama suresi ne kadar?

112,7

SELECT AVG(length)

FROM film where (description) like '%Action%';

35. En cok staff olan store hangisidir?

select store\_id from staff Group by store\_id order by count(store\_id) limit 1

36. 'Gene Willis' adli actorun oynadigi filmlerin ratingi nedir?

|  |
| --- |
|  |
| select rating from film where film\_id in (select film\_id from film\_actor where actor\_id in  (select actor\_id from actor where first\_name='Gene' and last\_name='Willis')) |
|  |  |  |

37. Aktif customer sayisi nedir?

584

select count(\*) from customer where active =1

38. 'C' harfiyle baslayan filmler hangileridir?

92 film

select \* from film where title like 'C%'

39. 4$ den az odeme yapan musterilerin e-mail adresleri nedir?

select email from customer where customer\_id in (select customer\_id from payment where amount < 4)

40. Moscow'da ikamet eden staff ve customer tablosu? (sadece isim/soyisim sutunu olsun)

|  |
| --- |
| select first\_name, last\_name |
| from customer | |
| where address\_id in (select address\_id from address where city\_id =  (select city\_id from city where city='Moscow')) | |
| union select first\_name, last\_name | |
| from staff | |
| where address\_id in (select address\_id from address where city\_id =  (select city\_id from city where city='Moscow')) | |

41. En az kiralanan 5 film hangisidir?

select film\_id , count(inventory\_id)

from (select i.inventory\_id, i.film\_id, r.rental\_id from inventory as i right join rental as r on i.inventory\_id = r.inventory\_id) as foo

group by film\_id order by count(inventory\_id) asc limit 5

42. 2006 yilinda yayinlanan ingilizce filmler hangileridir?

select \* from film where language\_id in (select language\_id from language where name='English') and release\_year = 2006