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

CREATE DATABASE class4

WITH

OWNER = postgres

ENCODING = 'UTF8'

CONNECTION LIMIT = -1;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**5- ER modeldeki tablolardan 3 tanesini K olusturun.**

Table-1===============================

CREATE TABLE public.category\_1

(

category\_id integer NOT NULL,

name character varying(25) NOT NULL,

last\_update timestamp without time zone NOT NULL,

PRIMARY KEY (category\_id)

);

ALTER TABLE public.category\_1

OWNER to postgres;

Table-2===============================

CREATE TABLE public.film\_actor\_1

(

actor\_id smallint NOT NULL,

film\_id smallint NOT NULL,

last\_update timestamp without time zone NOT NULL,

PRIMARY KEY (actor\_id, film\_id)

);

ALTER TABLE public.film\_actor\_1

OWNER to postgres;

Table-3===============================

CREATE TABLE public.film\_category\_1

(

film\_id smallint NOT NULL,

category\_id smallint NOT NULL,

last\_update timestamp without time zone NOT NULL,

PRIMARY KEY (film\_id, category\_id)

);

ALTER TABLE public.film\_category\_1

OWNER to postgres;

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

**6- ER modeldeki tablolardan 3 tanesini C olusturun.**

Table-1===============================

import psycopg2

# Create a table

conn = psycopg2.connect("dbname=class4 user=postgres password=Ee288452.")

cur = conn.cursor()

command = '''CREATE TABLE public.category\_2

(

category\_id integer NOT NULL,

name character varying(25) NOT NULL,

last\_update timestamp without time zone NOT NULL,

PRIMARY KEY (category\_id)

)

'''

#create a table

cur.execute(command)

# close communication with the PostgreSQL database server

cur.close()

# commit the changes

conn.commit()

# close the connection

conn.close()

Table-2===============================

conn = psycopg2.connect("dbname=class4 user=postgres password=Ee288452.")

cur = conn.cursor()

command = '''CREATE TABLE public.film\_actor\_2

(

actor\_id smallint NOT NULL,

film\_id smallint NOT NULL,

last\_update timestamp without time zone NOT NULL,

PRIMARY KEY (actor\_id, film\_id)

)

'''

#create a table

cur.execute(command)

# close communication with the PostgreSQL database server

cur.close()

# commit the changes

conn.commit()

# close the connection

conn.close()

Table-3===============================

# Create a table

conn = psycopg2.connect("dbname=class4 user=postgres password=Ee288452.")

cur = conn.cursor()

command = '''CREATE TABLE public.film\_category\_2

(

film\_id smallint NOT NULL,

category\_id smallint NOT NULL,

last\_update timestamp without time zone NOT NULL,

PRIMARY KEY (film\_id, category\_id)

)

'''

#create a table

cur.execute(command)

# close communication with the PostgreSQL database server

cur.close()

# commit the changes

conn.commit()

# close the connection

conn.close()

**8- Olusturdugunuz 3 tabloya K ile 5 veri girisi yapin.**

Table-1===============================

INSERT INTO category\_1(category\_id,name)

VALUES

(11,'action'),

(12,'fantastic'),

(13,'romantic'),

(14,'scientific'),

(15,'comedy');

Table-2===============================

INSERT INTO film\_actor\_1(actor\_id,film\_id)

VALUES

(1,123),

(2,234),

(3,345),

(4,456),

(5,567);

Table-3===============================

INSERT INTO film\_category\_1(film\_id,category\_id)

VALUES

(123,111),

(234,222),

(345,333),

(456,444),

(567,555);

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

Table-1===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
cur.execute(**'INSERT INTO category\_2 VALUES(%s,%s)'**, (22,**'drama'**))  
cur.execute(**'INSERT INTO category\_2 VALUES(%s,%s)'**, (33,**'romantic'**))  
cur.execute(**'INSERT INTO category\_2 VALUES(%s,%s)'**, (44,**'science'**))  
cur.execute(**'INSERT INTO category\_2 VALUES(%s,%s)'**, (55,**'fantastic'**))  
cur.execute(**'INSERT INTO category\_2 VALUES(%s,%s)'**, (66,**'romantic'**))  
cur.close()  
conn.commit()  
conn.close()

Table-2===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
cur.execute(**'INSERT INTO film\_actor\_2 VALUES(%s,%s)'**, (22,111))  
cur.execute(**'INSERT INTO film\_actor\_2 VALUES(%s,%s)'**, (33,222))  
cur.execute(**'INSERT INTO film\_actor\_2 VALUES(%s,%s)'**, (44,333))  
cur.execute(**'INSERT INTO film\_actor\_2 VALUES(%s,%s)'**, (55,444))  
cur.execute(**'INSERT INTO film\_actor\_2 VALUES(%s,%s)'**, (66,555))  
cur.close()  
conn.commit()  
conn.close()

Table-3===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
cur.execute(**'INSERT INTO film\_category\_2 VALUES(%s,%s)'**, (111,987))  
cur.execute(**'INSERT INTO film\_category\_2 VALUES(%s,%s)'**, (222,765))  
cur.execute(**'INSERT INTO film\_category\_2 VALUES(%s,%s)'**, (333,652))  
cur.execute(**'INSERT INTO film\_category\_2 VALUES(%s,%s)'**, (444,874))  
cur.execute(**'INSERT INTO film\_category\_2 VALUES(%s,%s)'**, (555,963))  
cur.close()  
conn.commit()  
conn.close()

**11- 3 tablodaki birer veriyi K ile degistirin.**

Table-1===============================

UPDATE category\_1

set category\_id = 77

WHERE category\_id = 11;

Table-2===============================

UPDATE film\_actor\_1

set film\_id = 999

WHERE film\_id = 456;

Table-3===============================

UPDATE film\_category\_1

set film\_id = 999

WHERE film\_id <555;

**12- 3 tablodaki birer veriyi C ile degistirin.**

Table-1===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
cur.execute(**'UPDATE category\_2 SET category\_id=%s WHERE category\_id=%s'**, (99,22))  
cur.close()  
conn.commit()  
conn.close()

Table-2===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
cur.execute(**'UPDATE film\_actor\_2 SET actor\_id=%s WHERE actor\_id=%s'**, (99,33))  
cur.close()  
conn.commit()  
conn.close()

Table-3===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
cur.execute(**'UPDATE film\_category\_2 SET film\_id=%s WHERE film\_id=%s'**, (999,333))  
cur.close()  
conn.commit()  
conn.close()

**14- 3 tablonun son satirini K ile silin.**

Table-1===============================

DELETE FROM category\_1

WHERE category\_id = (SELECT category\_id

FROM category\_1

ORDER BY category\_id DESC

LIMIT 1);

Table-2===============================

DELETE FROM film\_actor\_1

WHERE actor\_id = (SELECT actor\_id

FROM film\_actor\_1

ORDER BY actor\_id DESC

LIMIT 1);

Table-3===============================

DELETE FROM film\_category\_1

WHERE category\_id = (SELECT category\_id

FROM film\_category\_1

ORDER BY category\_id DESC

LIMIT 1);

**15- 3 tablonun son satirini C ile silin.**

Table-1===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''DELETE FROM category\_2  
 WHERE category\_id = (SELECT category\_id   
 FROM category\_2  
 ORDER BY category\_id DESC   
 LIMIT 1)  
  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

Table-2===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''DELETE FROM film\_actor\_2  
 WHERE actor\_id = (SELECT actor\_id   
 FROM film\_actor\_2   
 ORDER BY actor\_id DESC   
 LIMIT 1);  
  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

Table-3===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''DELETE FROM film\_category\_2  
 WHERE category\_id = (SELECT category\_id   
 FROM film\_category\_2   
 ORDER BY category\_id DESC   
 LIMIT 1)  
  
  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

**17- 1 tabloyu K ile silin.**

**DROP Table film\_category\_1;**

**18- 1 tabloyu C ile silin.**

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''DROP Table film\_category\_1  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

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

CREATE TABLE category\_3

AS SELECT category\_id, name

FROM category\_2;

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

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''CREATE TABLE category\_4   
 AS SELECT category\_id, name   
 FROM category\_3  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

**22- Tablolardan 1 tanesini K ile truncate edin.**

TRUNCATE TABLE category\_2;

**23- Tablolardan 1 tanesini C ile truncate edin.**

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''** **TRUNCATE TABLE category\_3  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

**25- 2 tabloyu K ile silin.**

DROP Table category\_2;

DROP Table category\_3;

**26- 2 tabloyu C ile silin.**

Table-1===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''** **DROP Table category\_4;  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

Table-2===============================

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''** **DROP Table film\_actor\_2;  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

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

COPY film\_category\_2 TO 'C:\Users\a\Desktop\film\_category\_2.csv' DELIMITER ',' CSV HEADER;

**28- Postgresql arayuzundeki son tabloyu da K ile silin.**

DROP Table film\_category\_2;

**\*29- Bilgisayarinizdaki csv yi arayuze import edin.**

COPY film\_category\_3 TO 'C:\Users\a\Desktop\film\_category\_2.csv' DELIMITER ',' CSV HEADER;

**30- Import ettiginiz bu tabloyu C ile silin.**

conn = psycopg2.connect(**"dbname=class4 user=postgres password=Ee288452."**)  
cur = conn.cursor()  
command = **'''** **DROP Table film\_category\_3;  
'''***#create a table*cur.execute(command)  
*# close communication with the PostgreSQL database server*cur.close()  
*# commit the changes*conn.commit()  
*# close the connection*conn.close()

**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.**

1. “address” TABLE ==> address\_id: primary key

city\_id: foreign key from “city” TABLE

1. “actor” TABLE ==> actor\_id: primary key
2. “category” TABLE ==> category\_id: primary key
3. “film” TABLE ==> film\_id: primary key

language\_id: foreign key from “language” TABLE

1. “country” TABLE ==> country\_id: primary key

**33- Action filmlerinin ortalama suresi ne kadar?**

select avg(length) from film

where film\_id IN (select film\_id from film\_category

where category\_id= (select category\_id from category

where name='Action'));

**34- En cok customer olan store hangisidir?**

SELECT count(\*)

FROM customer

WHERE store\_id=1;

--RESULT:326

SELECT count(\*)

FROM customer

WHERE store\_id=2;

--RESULT:273

SELECT store\_id,COUNT(\*)

FROM customer

GROUP BY store\_id

ORDER BY COUNT(\*) DESC

LIMIT 1;

**35- '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=(

SELECT actor\_id FROM actor

WHERE first\_name='Gene' and last\_name='Willis'));

**36- Aktif customer sayisi nedir?**

SELECT COUNT(\*)

FROM customer

WHERE active=1;

**37- 'C' harfiyle baslayan filmler hangileridir?**

SELECT \*

FROM film

WHERE title LIKE 'C%';

**38- 4$ den az odeme yapan musterilerin e-mail edresleri nedir?**

SELECT email FROM customer WHERE customer\_id IN (

SELECT customer\_id FROM payment WHERE amount<4);

**39- Moscow'da ikamet eden staff ve customer tablosu? (sadece isim/soyisim sutunu olsun)**

SELECT first\_name,last\_name FROM customer WHERE address\_id=(

SELECT address\_id FROM address WHERE city\_id=(

SELECT city\_id FROM city WHERE city='Moscow' ));

**40- En az kiralanan 5 film hangisidir?**

SELECT film\_id,COUNT(\*)

FROM inventory

GROUP BY film\_id

ORDER BY COUNT(\*) DESC

LIMIT 1;

**41- 2006 yilinda yayinlanan ingilizce filmler hangileridir?**

SELECT \* FROM film WHERE language\_id=(

SELECT language\_id FROM language WHERE name='English');