

Создаем базу данных, при этом нужно учесть объектно-реляционных связи, ограничения в таблицах, массивы, последовательности.

CREATE SEQUENCE day_5 INCREMENT 5 MINVALUE 0 MAXVALUE 100 START 10 CYCLE;	CREATE TABLE IF NOT EXISTS brands (idbrands INT NOT NULL, name_brand VARCHAR(45) NULL, PRIMARY KEY (idbrands));	CREATE TABLE IF NOT EXISTS clients (idclient INT NOT NULL, FIO VARCHAR(45) NULL, passport VARCHAR(10) NULL, adress VARCHAR(45) NULL, tel VARCHAR(10) NULL, PRIMARY KEY (idclient));
CREATE TABLE IF NOT EXISTS films_on_scassettes (cassettes_idcassette INT NOT NULL, films_idfilms INT NOT NULL, PRIMARY KEY (cassettes_idcassette, films_idfilms), FOREIGN KEY (cassettes_idcassette) REFERENCES cassettes (idcassette) ON DELETE NO ACTION ON UPDATE NO ACTION, FOREIGN KEY (films_idfilms) REFERENCES films (idfilms) ON DELETE NO ACTION ON UPDATE NO ACTION);	CREATE TABLE IF NOT EXISTS cassettes (idcassette INT NOT NULL DEFAULT nextval(day_5), description TEXT NULL, sticker TEXT NULL, brands_idbrands INT NOT NULL, price_1_day INT NULL, price_3_day INT NULL, price_1_week INT NULL, available INT NULL, total_recording_duration(min) INT NULL, PRIMARY KEY (idcassette), FOREIGN KEY (brands_idbrands) REFERENCES brands (idbrands) ON DELETE NO ACTION ON UPDATE NO ACTION);	CREATE TABLE IF NOT EXISTS clients_has_cassettes (order_id INT NULL PRIMARY KEY, clients_idclient INT NOT NULL, cassettes_idcassette INT NOT NULL, date_out DATE NULL, date_in DATE NULL, total_price INT NULL, FOREIGN KEY (clients_idclient) REFERENCES clients (idclient) ON DELETE NO ACTION FOREIGN KEY (cassettes_idcassette) REFERENCES cassettes (idcassette) ON DELETE NO ACTION ON UPDATE NO ACTION);
	CREATE TABLE IF NOT EXISTS films (idfilms INT NOT NULL, name_film VARCHAR(45) NULL, duration(min) INT NULL, category VARCHAR(45) NULL, theme VARCHAR(20) NULL, country VARCHAR(20) NULL, filmcompany VARCHAR(45) NULL, description TEXT NULL, director VARCHAR(45) NULL, actors VARCHAR(120)[] NULL, PRIMARY KEY (idfilms));	

```
lab6=# INSERT INTO cassettes(brands_idbrands) VALUES (1);
ОШИБКА: INSERT или UPDATE в таблице "cassettes" нарушает ограничение внешнего ключа "fk_cassettes_brands1"
ПОДРОБНОСТИ: Ключ (brands_idbrands)=(1) отсутствует в таблице "brands".
lab6=# INSERT INTO brands(idbrands) VALUES (1);
INSERT 0 1
lab6=# INSERT INTO cassettes(brands_idbrands) VALUES (1);
INSERT 0 1
lab6=# SELECT * FROM cassettes;
 idcassette | description | sticker | brands_idbrands | price_1_day | price_3_day | price_1_week | available | total_recording_duration(min)
-----+-----+-----+-----+-----+-----+-----+-----+-----
15 | | | 1 | | | | |
(1 строка)
```

Ограничения и последовательности работают

```
lab6=# INSERT INTO films(idfilms, actors) VALUES (1, '{"Jason Statham", "Bruce Willis", "Bruce Zalez"}');
INSERT 0 1
lab6=# SELECT actors[1] FROM films;
 actors
-----
Jason Statham
(1 строка)
```

Теперь массивы

Экспорт

```
C:\Program Files\PostgreSQL\13\bin>pg_dump.exe -U postgres -d lab6 > C:\Users\vladt\Downloads\lab6.sql
Пароль:
```

Импорт

```
lab6=# \i c:/Users/vladt/Downloads/lab6.sql
SET
SET
SET
SET
SET
SET
  set_config
-----
(1 строка)

SET
SET
SET
SET
SET
SET
SET
CREATE TABLE
ALTER TABLE
CREATE SEQUENCE
ALTER TABLE
CREATE TABLE
ALTER TABLE
CREATE TABLE
ALTER TABLE
CREATE TABLE
ALTER TABLE
CREATE TABLE
ALTER TABLE
CREATE TABLE
ALTER TABLE
```

```
lab6=# SELECT actors[1] FROM public.films;
actors
-----
Jason Statham
(1 строка)
```