Exercise 7.1.1: Our running example movie database of Section 2.2.8 has keys defined for all its relations.

```
Movies(title, year, length, genre, studioName, producerC#)
StarsIn(movieTitle, movieYear, starName)
MovieStar(name, address, gender, birthdate)
MovieExec(name, address, cert#, netWorth)
Studio(name, address, presC#)
```

Declare the following referential integrity constraints for the movie database as in Exercise 7.1.1.

a) The producer of a movie must be someone mentioned in `MovieExec`. Modifications to `MovieExec` that violate this constraint are rejected.

b) Repeat (a), but violations result in the `producerC#` in `Movie` being set to `NULL`.

c) Repeat (a), but violations result in the deletion or update of the offending `Movie` tuple.

d) A movie that appears in `StarsIn` must also appear in `Movie`. Handle violations by rejecting the modification.

e) A star appearing in `StarsIn` must also appear in `MovieStar`. Handle violations by deleting violating tuples.

Exercise 7.1.3: Suggest suitable keys and foreign keys for the relations of the PC database:

```
Product(maker, model, type)
PC(model, speed, ram, hd, price)
Laptop(model, speed, ram, hd, screen, price)
Printer(model, color, type, price)
```

of Exercise 2.4.1. Modify your SQL schema from Exercise 2.3.1 to include declarations of these keys.

Exercise 7.2.1: Write the following constraints for attributes of the relation

`Movies(title, year, length, genre, studioName, producerC#)`

a) The year cannot be before 1915.

b) The length cannot be less than 60 nor more than 250.

c) The studio name can only be Disney, Fox, MGM, or Paramount.