

CE 223 - DATABASE SYSTEMS

WEEK #12 RECITATION QUESTIONS

- 8.1.1
- 8.1.2
- 8.2.2
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- 8.3.1

8.1.1

Exercise 8.1.1: From the following base tables of our running example

```
MovieStar(name, address, gender, birthdate)
MovieExec(name, address, cert#, netWorth)
Studio(name, address, presC#)
```

Construct the following views:

- a) A view **RichExec** giving the name, address, certificate number and net worth of all executives with a net worth of at least \$10,000,000.
- b) A view **StudioPres** giving the name, address, and certificate number of all executives who are studio presidents.
- c) A view **ExecutiveStar** giving the name, address, gender, birth date, certificate number, and net worth of all individuals who are both executives and stars.

8.1.2

Exercise 8.1.2: Write each of the queries below, using one or more of the views from Exercise 8.1.1 and no base tables.

- a) Find the names of females who are both stars and executives.
- b) Find the names of those executives who are both studio presidents and worth at least \$10,000,000.
- ! c) Find the names of studio presidents who are also stars and are worth at least \$50,000,000.

8.2.1 and 8.2.2

Exercise 8.2.1: Which of the views of Exercise 8.1.1 are updatable?

Exercise 8.2.2: Suppose we create the view:

```
CREATE VIEW DisneyComedies AS
  SELECT title, year, length FROM Movies
  WHERE studioName = 'Disney' AND genre = 'comedy';
```

- a) Is this view updatable?
- b) Write an instead-of trigger to handle an insertion into this view.
- c) Write an instead-of trigger to handle an update of the length for a movie (given by title and year) in this view.

8.2.3

Exercise 8.2.3: Using the base tables

```
Product(maker, model, type)
PC(model, speed, ram, hd, price)
```

suppose we create the view:

```
CREATE VIEW NewPC AS
SELECT maker, model, speed, ram, hd, price
FROM Product, PC
WHERE Product.model = PC.model AND type = 'pc';
```

Notice that we have made a check for consistency: that the model number not only appears in the PC relation, but the `type` attribute of `Product` indicates that the product is a PC.

- Is this view updatable?
- Write an instead-of trigger to handle an insertion into this view.
- Write an instead-of trigger to handle an update of the price.
- Write an instead-of trigger to handle a deletion of a specified tuple from this view.

8.3.1

Exercise 8.3.1: For our running movies example:

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

Declare indexes on the following attributes or combination of attributes:

- a) studioName.
- b) address of MovieExec.
- c) genre and length.