

Quiz 1, Spring 2018
CSCI 4380 Database Systems
Time: 25 minutes

Name 1: _____
Name 2: _____
Name 3: _____

Rules.

- Open book and notes. Do not use any electronic tools including your computer.
- You can talk to anyone in class. If you know the answer, help someone else in class.
- Each quiz must be by at least two and at most three people. Most quizzes should be by three people, so find someone to talk to. Put your name on one quiz only.

Question (Points: a-5 b-10 c-10). You are given the following data model containing TV shows featuring heroes (note that this is slightly different than the one we used in class examples. I renamed all attributes for simplicity):

```
TVShow(showname1, startyear1, tv_channel1, endyear1)
ShowMainHeroes(showname2, startyear2, heroname2)
Episode(eid3, seasonid3, episodeid3, showname3, startyear3, title3, airyear3)
GuestHero(eid4, heroname4)
```

Shows have main heroes (**ShowMainHeroes**). On top, each episode is for a specific show, given by its key: **showname**, **fromyear**. Episodes may feature one or more guest heros. We removed other relations for simplicity, so use only these relations in your queries.

Answer the following questions:

- (a) For the following, circle one of yes/no based on the relations above and its keys:

Can there be two different shows with the same name in the same starting year?	YES-NO
In a given starting year, can there be two different shows on the same TV Channel?	YES-NO
Can the same guest hero be in two different episodes of the same show?	YES-NO
Can there be two episodes with the same season id and same episode id?	YES-NO
Can the same hero be on two diferent shows in the same starting year?	YES-NO

- (b) Return the show name, starting year for all TV shows that had no guest hero appearances.
- (c) Return the show name, starting year for all TV shows (a) where one of the main heroes was also a guest hero in another TV show (b) while show (a) was on the air (i.e. shows (a) and (b) both had an episode in the same year and the episode for (b) featured a hero from show (a)).

Answers.