Homework #7: Transposing - Supertypes, Subtypes

Note: submissions must be made to the appropriate dropbox in PDF format. This homework is required to be typed, not handwritten.

PART 1: Transposing an E-R Diagram (55 pts)

Transpose the E-R Diagram for RITPO into relations. Use the relational notation: RELNAME(KeyAttr, Attr1, Attr2, *FK*). *Italicize* or dash underline your foreign keys. Be sure to include a reference statement for each foreign key that follows the format :

   CURRENT_TABLE(fkattribute(s)) must exist in ORIGINAL_TABLE(pkattribute(s))

Create & submit a PDF file called **yourname_HW7.pdf** to include all of the resulting relations.

See Chart (HW07.jpg) in Zip file

1
MEMBER(zipcode, state, street, city, firstname, middle_initial, lastname, <u>memberID</u>, musician, conductor)

2
MUSICIAN(*memberID*, instruments)

   - - - - - - -
  MUSICIAN(memberID)   M.E.I   MEMBER(memberID)

3
SOLOIST(*memberID*)

   - - - - - -
  SOLOIST(memberID)   M.E.I   MUSICIAN(memberID)

4
CONDUCTOR(level, *memberID*)

     - - - - - - - -
  CONDUCTOR(memberID)   M.E.I   MEMBER(memberID)

5
SENIOR(*memberID*, num_concerts_conducted)

   - - - - - - - -
  SENIOR(memberID)   M.E.I   CONDUCTOR(memberID)

6
JUNIOR(*memberID*)

   - - - - - - - -
  JUNIOR(memberID)   M.E.I   CONDUCTOR(memberID)

7
MENTOR_MentoredBy(*mentorID,mentored_by_seniorID*)
- - - - - -   - - - - - - - - - - - - -- -
     MENTOR_MentoredBy (mentorID)   M.E.I SENIOR(memberID)
     MENTOR_MentoredBy(mentored_by_seniorID)   M.E.I Jumior(memberID)

8
CONCERT_SEASON(season_year, opening_date, closing_date)

9
CONCERT(time, date, name, concert_number, *memberID*, *season_year*)
                                                - - - - - - -   - - - - - - - -
     CONCERT(season_year)   M.E.I CONCERT_SEASON(season_year)
     CONCERT(memberID)   M.E.I CONDUCTOR(memberID)

10
CONCERT_COMPOSITION(*composition_name, composer_name, concert_number, season_year*)
                                       -
     CONCERT_COMPOSITION(composition_name, composer_name) M.E.I
COMPOSITION(composition_name, composer_name)

     CONCERT_COMPOSITION(concert_number, season_year)   M.E.I
CONCERT(concert_number, season_year)

11
COMPOSITION(composition_name, composer_name, num_movments)

12
COMPOSITION_SOLOIST(date_last_solo, *composer_name, composition_name*, *memberID*)
                                    - - - - - - - -

     COMPOSITION_SOLOIST(composer_name, composition_name)   M.E.I
COMPOSITION(composer_name, composition_name)

     COMPOSITION_SOLOIST(memberID)   M.E.I SOLOIST(memberID)