**RIT | Golisano** College of Computing and Information Sciences
**School of Information**

Fall 2024
(Term 2241)

Introduction to Database & Data Modeling
**Homework #7**
**Transposing**

Name: (Lastname, Firstname) _____Lynch, Connor_____

## Homework #7: Transposing - Supertypes, Subtypes

**You must covert this word document to PDF after you include all your relational schema.**

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

### PART 1: Transposing an E-R (In Zip file HW07.zip) Diagram (60 pts)

Transpose the E-R Diagram for RITPO into relations. Use the relational notation:

## RELNAME( <u>KeyAttr</u>, Attr1, Attr2, *Foreign_Key* )
                                              - - - - - - - - -

*Italicize* **AND** dash underline your foreign keys.

Be sure to include a reference statement for each foreign key that follows the format we have been using in class.

Write the Must Exist In (M.E.I.) statements below the appropriate relation.

Use all capital letters for each relation name.

Create & submit a PDF file called **yourname_HW7.pdf** to include all of the resulting relations found in HW07.jpg **SEE CHART In Zip file HW07.zip.**

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Resulting Relations:

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

CONDUCTOR(*<u>memberID</u>*, level)
 - - - - - -
   Conductor(memberID) M.E.I. Member(memberID)

SENIOR(*<u>memberID</u>*, number_concerts_conducted)
  - - - - - -
   Senior(memberID)    M.E.I. Conductor(memberID)

JUNIOR(*<u>memberID</u>*, *mentor*)
  - - - - - -   - - - - -
   Junior(memberID)    M.E.I. Conductor(memberID)
   Junior(mentor)      M.E.I. Senior(memberID)

MUSICIAN(*<u>memberID</u>*)
   - - - - - -
   Musician(memberID) M.E.I. Member(memberID)

INSTRUMENTS(*<u>memberID</u>*, <u>instrument</u>)
      - - - - - -
   Instruments(memberID)      M.E.I. Musician(memberID)

SOLOIST(*<u>memberID</u>*)
   - - - - - -
   Soloist(memberID)    M.E.I. Musician(memberID)

CONCERT(<u>concert_number</u>, name, date, time, *conductor*, *<u>season_year</u>*)
                          - - - - - -   - - - - - - - -
   Concert(conductor)                   M.E.I. Conductor(memberID)
   Concert(season_year)                 M.E.I. Concert_Season(season_year)

CONCERT_COMPOSITION(*<u>concert_number</u>*, *<u>composition_name</u>*, *<u>composer_name</u>*)
                     - - - - - - - - - -   - - - - - - - - - - -  - - - - - - - - -
   Concert_Composition(composition_name, composer_name) M.E.I. Composition(composition_name, composer_name)
   Concert_Composition(concert_number) M.E.I. Concert(conert_number)

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COMPOSITION(composition_name, composer_name, num_movements)


COMPOSITION_SOLOIST(*soloistID*, *composition_name*, *composer_name*, date_last_solo)
                    ‐ ‐ ‐ ‐      ‐ ‐ ‐ ‐ ‐ ‐ ‐ ‐ ‐ ‐      ‐ ‐ ‐ ‐ ‐ ‐ ‐ ‐ ‐
        Composition_Soloist(soloistID)                                M.E.I. Soloist(memberID)
        Composition_Soloist(composition_name, composer_name) M.E.I. Soloist(composition_name, composer_name)

CONCERT_SEASON(season_year, opening_date, closing_date)