**CSE 3241 Project Checkpoint 02**

**Relational Model and Relational Algebra**

Names Date

In a **NEATLY TYPED** document, provide the following:

1. Provide a current version of your ER Model as per Project Checkpoint 01. If you were instructed to change the model for Project Checkpoint 01, make sure you use the revised version of your ER Model. You must highlight and indicate the corrections/modifications.
2. Map your ER model to a relational schema. Indicate all primary and foreign keys with different indicators. Each foreign key should point to the attribute it references. Your schema should look similar to those in the power points.
3. Given your relational schema, provide the relational algebra to perform the following queries. If your schema cannot provide answers to these queries, revise your ER Model and your relational schema to contain the appropriate information for these queries:
   1. Find the titles of all songs by ARTIST released before YEAR
   2. Give all the movies and their date of their checkout from a single patron (you choose how to designate the patron)
   3. List all the albums and their unique identifiers with less than 5 copies held by the library.
   4. Give all the patrons who checked out a movie/video by ACTOR and the movie they checked out.
   5. Find the total number of albums checked out by a single patron (you choose how to designate the patron)
   6. Find the patron who has checked out the most movies and the total number of movies they have checked out.
4. Come up with three additional interesting queries that your database can provide. Give what the queries are supposed to retrieve in plain English and then as relational algebra. Your queries should include joins and at least one should include an aggregate function. At least one of your queries should use “extra” entities you added to your model in Checkpoint 01.
5. Each team member, individually, needs to fill out the Peer-evaluation form provided and submit it to Carmen. Be sure to include yourself in the evaluation.

Please DO NOT zip the report file when you submit so that the grader can give you detailed feedback in Carmen.