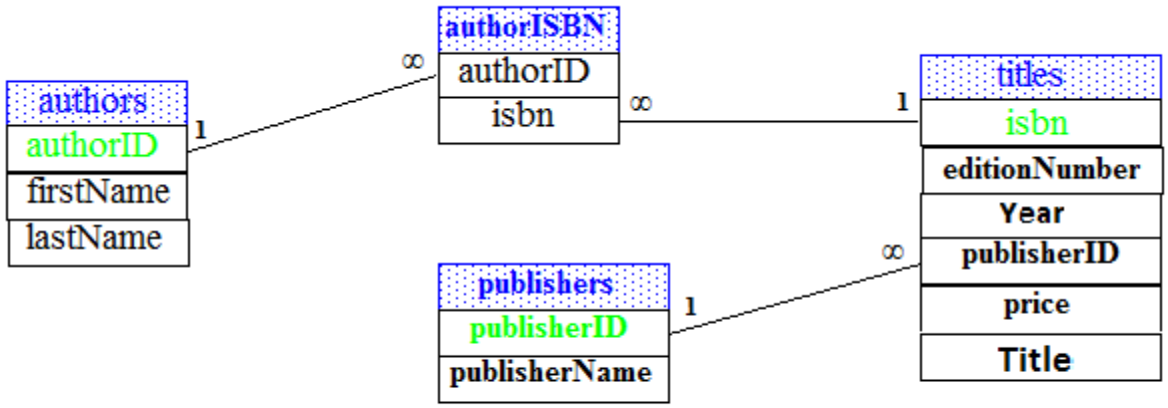
Northeastern University
College *of* Computer and Information Science

Department of Computer Science
Database Management Systems (CS 5200)
Instructor: Ahmed Ezzat

Project #1 Preview (5 pts)

Project Overview:

The goal of this project is to use JDBC to create a Books database, populate it, and then execute different SQL statements to query or manipulate the Books database.



The Books Database Schema

In the above schema (E-R diagram), blue represents the name of the table, and **green** represents the primary key. The line between authors and authorISBN is one-to-many relationship (author can have many ISBNs). Line between authorISBN and titles tables is many-to-one (one title can have many authors). The sole purpose of the authorISBN table is to represent a many-to-many relationship between the authors and titles tables; an author can have many books and a book can have many authors.

In this project, you are given the schema and an outline of the SQL statements that you should write and execute against the database. Please refer to the Project-1 assignment.

Programming Hints:

1. Creating the database is typically done in a SQL script (i.e., books.sql) which would be executed using SQL*PLUS tool from Oracle. For simplicity we will use JDBC to create the tables to avoid learning SQL*PLUS.
2. Be careful when adding a new title for an author. Remember that the book must have an entry in the **authorISBN** table.

3. Remember that no fields/columns are allowed to be NULL. This is specified in the create Table statement as follows:

   CREATE TABLE **student** (name CHAR(20) NOT NULL, birth year (CHAR(4), nationality CHAR(5));

4. Include one/two pages description of your project implementation. Remember to have good comments in your code. Also, include a hard copy of the java printout of the select statement results (cut-and paste from the screen). Finally, write clearly on the Front page the **absolute UNIX pathname** for your application to the grader to try (making sure RWX permissions for others).

5. Bring to class two complete copy sets of your project (one for the grader and the second for myself).