COURSE: CS/DSA- 4513 – DATABASE MANAGEMENT

SECTION: 001

SEMESTER: FALL 2019

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GROUP NUMBER: 43

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SCORE:

Problem 2-2

a) Create the relations by SQL

```
/*
    Setup new tables for our sets and relations: Performer, Movie, Acted, Director, and Movie Award
*/
-- Delete the table if it exists
DROP TABLE Acted;
DROP TABLE Movie_Award;
DROP TABLE Performer;
DROP TABLE Movie;
DROP TABLE Director;

-- Create Performer table
CREATE TABLE Performer
    (pid INT,
     pname VARCHAR(50),
     years_of_experience INT,
     age INT,
     PRIMARY KEY(pid));
-- Create Director table
CREATE TABLE Director
    (did INT,
     dname VARCHAR(50),
     earnings REAL,
     PRIMARY KEY(did));
-- Create Movie table
CREATE TABLE Movie
    (mname VARCHAR(50),
     genre VARCHAR(50),
     minutes INT,
     release_year INT,
     did INT,
     PRIMARY KEY(mname),
     FOREIGN KEY (did) REFERENCES Director (did));
-- Create Acted table
CREATE TABLE Acted
    (pid INT,
     mname VARCHAR(50),
     PRIMARY KEY(pid, mname),
     FOREIGN KEY(pid) REFERENCES Performer (pid),
     FOREIGN KEY(mname) REFERENCES Movie (mname));

-- Create Movie Award table
CREATE TABLE Movie_Award
    (aname VARCHAR(50),
     awardtype VARCHAR(50),
     awardyear INT,
     mname VARCHAR(50),
     PRIMARY KEY(aname, awardtype, awardyear),
     FOREIGN KEY(mname) REFERENCES Movie (mname));
```

As shown in the screenshot above, the statements that are added to the original SQL are to create the **Movie_Award** table where *aname (*with string data type), *awardtype (*with String data type), and *awardyear* (with INT data type) are part of the primary keys and the *mname* (with String data type) is a part of foreign key which reference to the *mname* of the **Movie** table.

c) Implement the SQL queries

```
118
119 /*
120     Find the names of all movies which received “Best Cinematography” Oscar awards
121     from year 2000 to 2010 (inclusive).
122 */
123 SELECT mname -- selecting the movie name as output
124 FROM Movie_Award
125 WHERE awardtype = 'Best Cinematography' AND -- find the Best Cinematography award type
126     --find the Oscar awards from year 2000 to 2010 (inclusive)
127     aname = 'Oscar' AND (awardyear BETWEEN 2000 AND 2010);
128
```