National University of Computer and Emerging Sciences, Lahore Campus

	Course:	**Database Systems**	**Course Code:**	
	Program:	**BS (Computer Science)**	**Semester:**	**Spring 2023**
	Due Date:	**Thursday, 9 February 2023**	**Total Marks:**	**15**
	Section:	**BCS-4J**	**Page(s):**	**1**

Instruction/Notes: You are not allowed to copy from each other. **Plagiarism** would be checked. Submit it in hard copy. Use proper assignment sheets to solve.
Deadline is Thursday, 9th February 7, 2023.

Question#1

a. **Write DDL script to create all the required tables. Also add primary keys in tables. (Do not create foreign key constraints inside Create Table statements)(5 Marks)**

   Movie (movieId, title, rating, releaseYear, directorId)

   Director (directorId, firstName, lastName)

   Actor (actorId, firstName, lastName)

   MovieActor (actorId, movieId)

b. **Create foreign constraints using alter table statement. Also consider the following constraints for foreign key.(5 Marks)**

   1. If a director id is deleted, then it is deleted for Movie as well.

   2. If a movie id is updated, then it is updated for MovieActor as well.

   3. If an actor id is updated, then it is updated for MovieActor as well.

c. **Alter the tables so that the following requirements are fulfilled(5 Marks)**

   1. A new column "dateOfBirth" having datatype date for Actor table is required.

   2. Title of each Movie needs to be unique.

   3. The rating of each movie cannot be greater than 5.

   4. Directors first and last Name cannot be NULL.