

DB – Assignment 1 – ERDs
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Q1.



Q2.

AS GIVEN:

Student: (StudentID, StudentName, DateOfBirth, Door#, Street, City, State, PIN, CourseID)

Course: (CourseID, CourseName)

Subject: (SubjectID, LecturerID, SubjectName, CourseID)

Lecturer: (LecturerID, SubjectID, LecturerName, CourseID, StudentID)

Attends: (StudentID, CourseID)

Takes: (LecturerID, CourseID)

Hobbies: (StudentID, Hobby)

CRUCIAL NOTE:

There is a big synchronization issue with Lecturer and Subject having each other as Foreign Keys.

So to fix we keep FK only in one of them like so:

Subject: (SubjectID, SubjectName, CourseID)

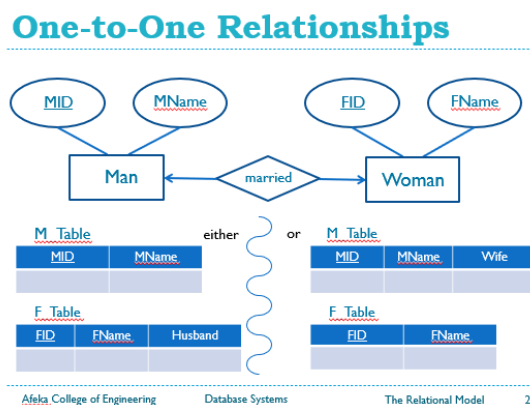
Lecturer: (LecturerID, SubjectID, LecturerName, CourseID, StudentID)

Or:

Subject: (SubjectID, LecturerID, SubjectName, CourseID)

Lecturer: (LecturerID, LecturerName, CourseID, StudentID)

And to fix this in the diagram we draw only the relationship, as shown in Lecture 3, Slide #20:



Minor Note:

Student doesn't really need the CourseID FK since there is already a relationship 'Attends', unless we give that FK a special meaning (for example: 'favourite course'), but that requires renaming it to that meaning.