1. Normalizing a Student Enrollment Table (1NF to 3NF)

Table Data:

StudentID | StudentName | CoursesEnrolled | Instructor | InstructorEmail

101 | Alice | CSE101, CSE102 | Prof. Smith | smith@uni.edu
102 | Bob | CSE102 | Prof. Lee | lee@uni.edu

Tasks:

- Identify functional dependencies. - Check if this table is in 1NF.

- Normalize it up to 3NF.

Step 1: Identify Functional Dependencies (FDs)

The given table has the following dependencies:

1. **StudentID → StudentName** (Each StudentID uniquely identifies a student)
2. **CoursesEnrolled → Instructor, InstructorEmail** (Each course is taught by a specific instructor)
3. **Instructor → InstructorEmail** (An instructor has a unique email)

Step 2: Check for 1NF (First Normal Form)

1NF Rule:

- No **repeating groups** (i.e., each field contains atomic values).
- Each column should have a **single value** per row.

Issue:

- CoursesEnrolled contains multiple values (e.g., "CSE101, CSE102").

click this link for see -> https://dbdiagram.io/d/Practice-question-1-67e5205c4f7afba1846b85a8