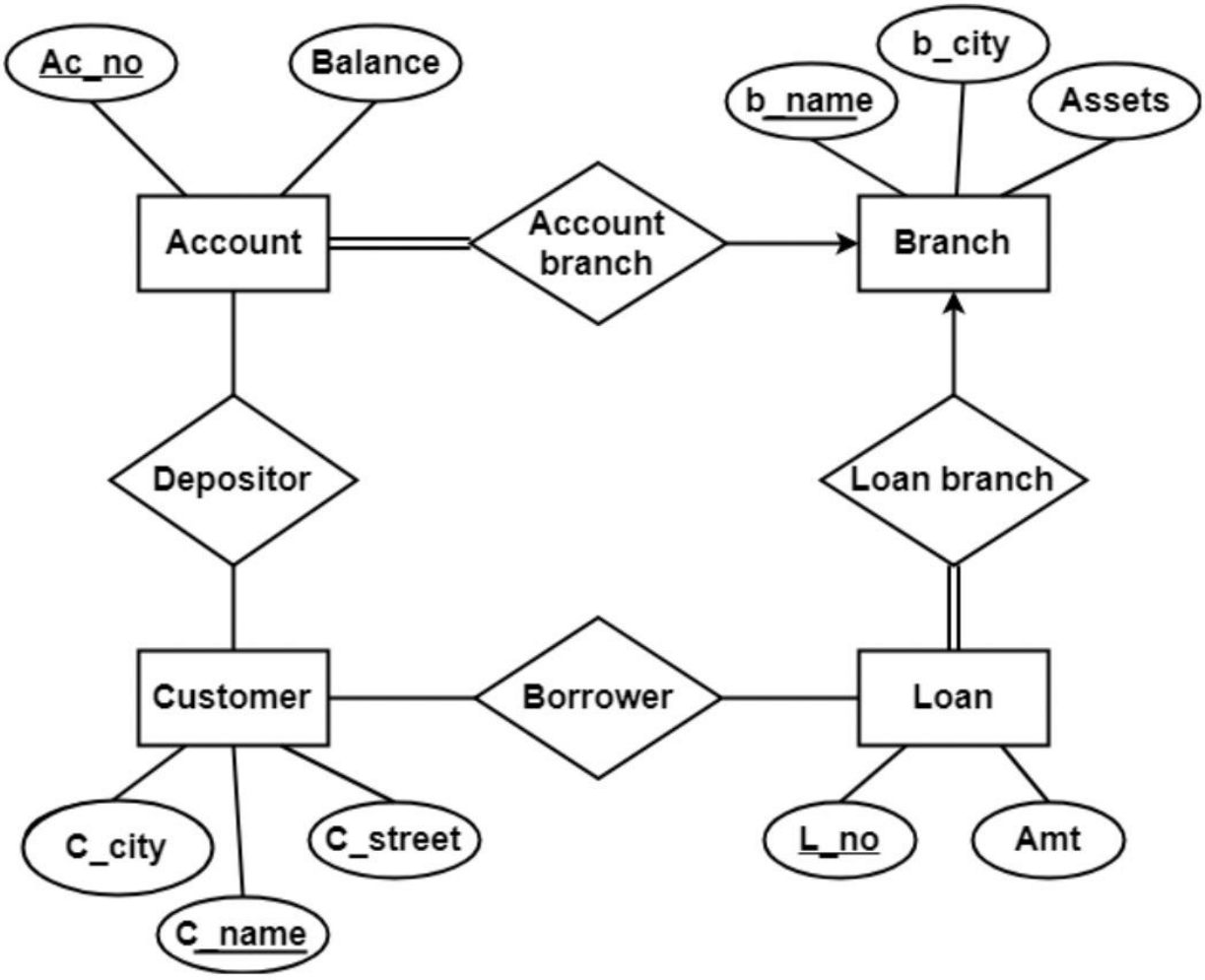
IT667 - Database Management Systems

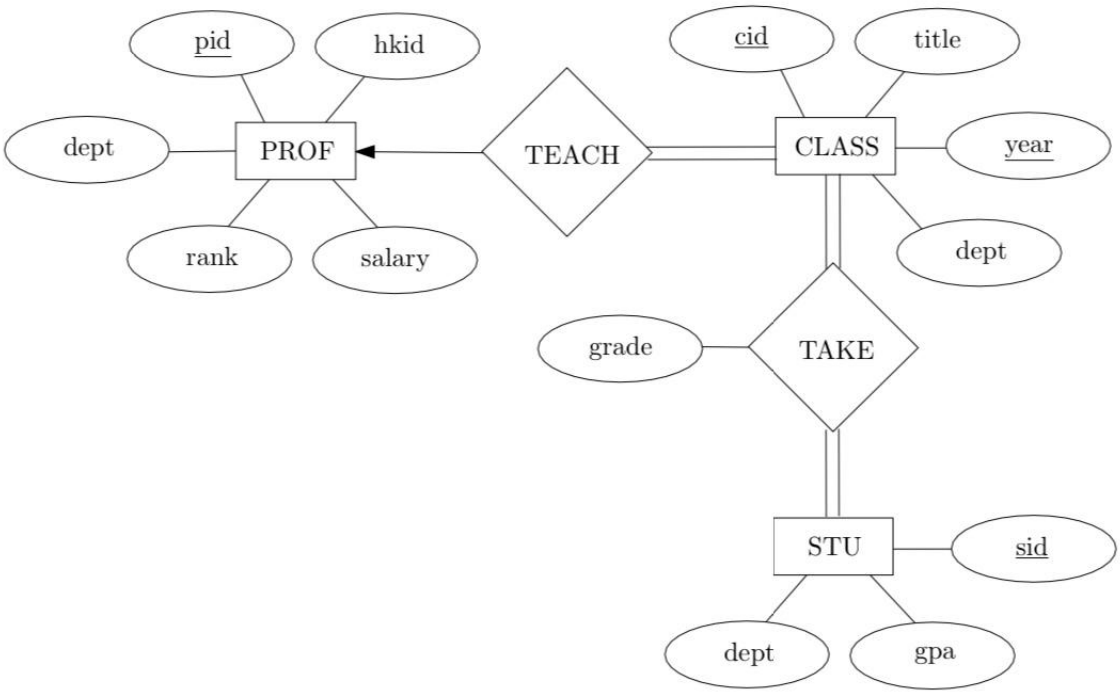
Lab Assignment 6 - Database Design

1. Study the following ER Diagram and construct a Relational Model (Tables) for the same. Identify the set of keys (Primary/Candidate) as well.

a.



b.



2. Construct an ER diagram for the following description of systems.

a. A university maintains data about the following entities:
(a) courses, including course_number, title, credits, syllabus, and prerequisites;
(b) course offerings, including course number, year, semester, department, instructor(s), timings, and classroom;
(c) students, including student_id, name, and program; and
(d) instructors, including faculty_id, name, department, and title. Further, the enrollment of students in courses and grades awarded to students in each course they are enrolled for must be appropriately modeled.

b. Suppose you are given the following requirements for a simple database for a game:
· the game has many teams,
· each team has a name, a city, a coach, a captain, and a set of players,
· each player belongs to only one team,
· each player has a name, a position (such as defender, goalkeeper), a skill level, and a set of injury records,
· a team captain is also a player,
· a game is played between two teams (referred to as home_team and visiting_team) and has a date of match and a score as well.