

Design the ERD and write necessary DDL to implement the following scenario:

IUT is one of the most reputed universities in Bangladesh with a completely online based solution for data storage. First of all it has about 5 departments. The department name, building, budget is stored along with the current department head name. The university also keeps a track of the history of the heads of different departments along with the starting and finishing date information.

Each department has some teachers who have a unique ID. Their name, designation, address, age, salary scale are also stored. There are many salary scales available in the university depending on which, the teachers get home rent, child allowance, transportation allowance, mobile allowance etc facilities. IUT have a lot of students. Whenever a student is admitted, he/she is given a unique roll number and his/her name, dateOfBirth, hall\_name address is stored. Each hall has its total\_available\_room, total\_staffs, provost\_id and the staff\_informations stored. (Provost is also a staff.)

Each student is associated with a teacher acting as his/her supervisor. Also, when a student is admitted, he/she has to register in the library to get library card. Each student can issue books from the library with respect to the library card. The issue date, book name is also stored in the library.

Several courses are offered by the departments in different semesters. Each course has a course\_id, name, totalCredit. Some course might also have some other courses as a prerequisite. Courses are taken by the teachers. The department allows a teacher to take more than one course. Again, student registers for courses each semester in different years. Each students overall CGPA is stored, as well as the specific grades of the courses are also stored.