University Database Management System

- **Use https://app.creately.com/ to draw ERD**
- A faculty has many departments.
- Departments have a department number, a department name.
- Each department has multiple instructors (one person is HOD). Here the HOD refers to the head of department.
- An instructor belongs to only one department.
- Instructors have a code, a name, an email, a mobile number, a research specialty, office hours and room no.
- Each department offers multiple courses, each course is taught by a single instructor.
- Each course has code, name, academic year, lectures number and minimum number of lectures that student should attend.
- All courses have same GPA grades and you have to calculate each student score in each course.
- Each course can have one or more exam types (quiz, midterm) but each course must have final exam.
- An exam has code, name, date, start time, end time, duration, number of questions and degree.
- Students have a code, a name (first name and last name), profile photo, a mobile number, an email, date of birth, an age (check that age is greater than or equal 18), gender and academic year.
- Each student belongs to one department.
- A student enrolls in all courses of his department.
- If number of lectures that student attended is less than the minimum number of lectures that he should attend, he cannot have final exam.
- Each instructor can add or edit his courses and exams only but admin has all permissions
- Validate inserted data
- Copy final exams in new table
- Enhance performance of this database

Extract some reports:

- Get all courses of specific department *GetDepartmentCourse*
- Get instructors data of first academic year (using join and sub queries) *GetYearInstructors*
- Calculate number of students in each department *StudentsNumberInDepartment*
- Get students data that is in specific department and specific academic year *StudentInDepartmentYear*
- Get non graduate students *NonGraduateStudents*
- Get students that their names start with 'A' *StudentsBeginWith*
- Get courses of specific academic year *GetYearCourses*
- Get exams in current month *ExamsInCurrentMonth*
- Get students data prevented from final exam in specific course
- Get total degrees of each student in quizzes and midterm in specific course
- Get students score and his GPA in each course
- Get student score in details (quizzes score, midterm sore and final score)
- Get student name and names of courses that he not passed
- Report on success ratio of each course contains number of students, number of succeed students, failed students and success ratio
- Get top 10 students in each academic year.
- Get top 10 students in midterm exam of specific course.