Spring-2023 Final Project Report

Course Title: CS-2005 Database Systems

Section: A

Group members:

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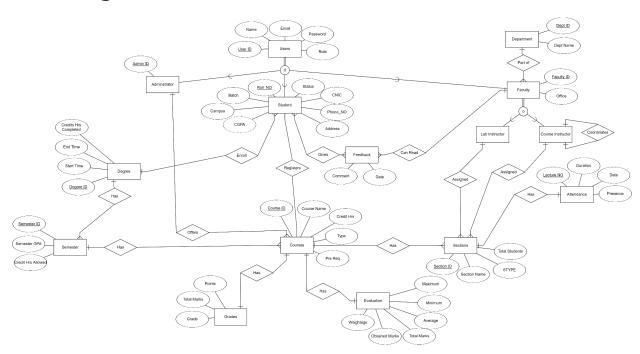


Department of Computer Science

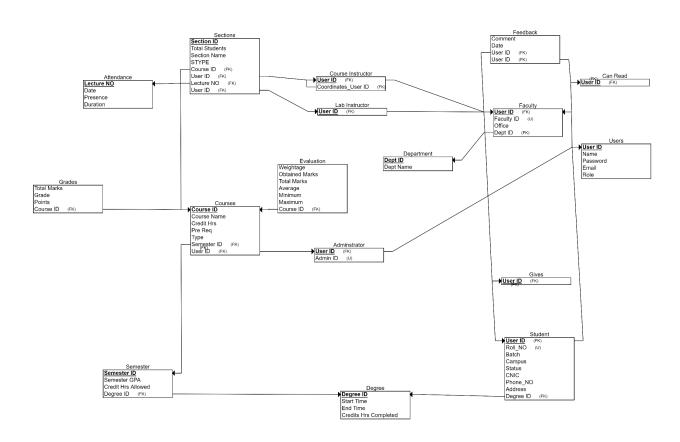
National University of Computing & Emerging Sciences

<u>Islamabad, Pakistan</u>

ERD Diagram:



Schema Diagram:



Relationship Mapping:

Degree one to many with Student

One student can take a degree at a time but a lot of students go for a single degree at a time.

Course one to many with Section

One course can have many sections but one section will be of a single course.

Semester one to many with course

One semester can have many courses but a single course will be enrolled once in a degree and once in a semester.

Section one to many Attendance

One Section will have attendance of students on a daily basis. So, the section has one to many relations with attendance.

Courses one to one with Grades

Course has one to one relation with grades because one course can only have one grade for a student.

Courses one to one with Evaluation

Courses have one to one relation with evaluation because one course will have only one evaluation sheet.

Users disjoint with Administrator, Student, Faculty

A user can only be a student, administrator or student or faculty. A man who works in administration will not be a student and a man who's in faculty can be a student.

Student many to many with feedback

A student can submit many feedback about a different teacher and single feedback will be shared to a single student for different teachers.

Faculty many to one with Department

A single department can have a group of faculties and one faculty will only belong to a single department.

Feedback one to many with Faculty

A faculty can have a lot of feedback about itself and feedback will only belong to specific feedback.

Lab instructor one to many with Section

A specific Lab instructor can teach many labs but a lab can only have one demonstrator.

Course instructor one to many with Section

A specific Courses instructor can teach many labs but a lab can only have one demonstrator.

Administrator one to many with course

Only one administrator can offer many courses.

Course Coordinator one to one relation

Only one course coordinator will be present for a course at a time.

Student one to many with course

A student can unroll many courses in a single semester but a student can't take a single course twice in degree.