Project Title

South valley university

Electronic system for examination and evaluation system

Project Description

South valley university is looking forward to develop an electronic system for examination and evaluation system. The target system intended to engage head of scientific departments, professors of each department, undergraduate and post graduate students from different faculties, scientific degrees and levels.

the system intended to have question bank that will be used by a professor to develop an exam for every course which is under supervision of only one scientific department. A professor may teach one course or more and the course may be assigned to different number professors for different scientific degrees and levels. Students can access the system throw username and password to answer every exam of their courses. Students can evaluate each course and also can evaluate each professor of each course. System should calculate results for exams automatically.

Deliverables

- ERD of the Database
- Database Files
- The following queries: -
    - Write a query that enables the students to view their results per course
    - Write a query that enables the head of department to see evaluation of each course and professor.
    - Write a query that enables you to get top 10 high scores per course
    - Write a query to get the highest evaluation professor from the set of professors teaching the same course

1_ System intended to engage head of scientific departments,

   Departments (entity) =>> Relation (Manage) with Leader

2_ professors of each department

   Professors (entity) =>> Relation (Works) on Department(Entity)

3_ undergraduate and post graduate students from different faculties

   Student(Entity) as Super class ==> Post(subclass) + under(Subclass)

   Faculties (entity OR attr) ==> Attr for each Student

4_ scientific degrees and levels.

   Multi Valued ATTR of the Student(entity)

5_ the system intended to have question bank that will be used by a professor to develop an exam for every course which is under supervision of only one scientific department

   QuestionBank (Entity) => Relation(used) => by Professor (entity)

   Professor (entity) => realtion(develop) => Exam(entity)

   one Department(Entity) => Supervise the develop of the exam

6_ professor may teach one course or more

   Professor(Entity) => realation(teach) => Course(Entity)

7_ the course may be assigned to different number professors

   Course(entity) => relation(assignes) => professor(entity)

8_ Students can access the system throw username and password to answer every exam of their courses

Student(entity) => relation(take) => Course(entity)

   Student(entity) have ATTR (userName , Password)

9_ Students can evaluate each course and also can evaluate each professor of each course

   Student(entity) => relation(evaluate) => course(entity)

   Student(entity) => relation(evaluate) => professor (entity)

10_ System should calculate results for exams automatically

Result is drived ATTR for each exam

Entities

1_ Departments (<u>Dept_id</u> , Dept_Name)

2_ Professors (<u>Prof_id</u> , Prof_Name, Username, Password ,Email)

3_ Student(super) (Stu_ID , Stu_Name,Faculty, Email, Username, Password, Phone, Address, Student_Type

- Undergraduate (Subtype) (Start_year , current_year , Major **)**
- Postgraduate (Subtype) (Graduation_Year ,Military_Service , GPA, Graduation_project

4_ QuestionBank (Ques_ID, Ques_Type, Difficulty_Level)

5_ Exam (Exam_ID, Exam_Date, Exam_Type)

6_ Course (Course_ID , Course_Name, Level , Degree_Type (Undergraduate/Postgraduate)

RelationShips

1_ Leads (professor leads Department)

2_ Work (professor works on in Department)

3_ Used (QuestionBank Used by Professor)

4_ develop (Professor develop the Exam)
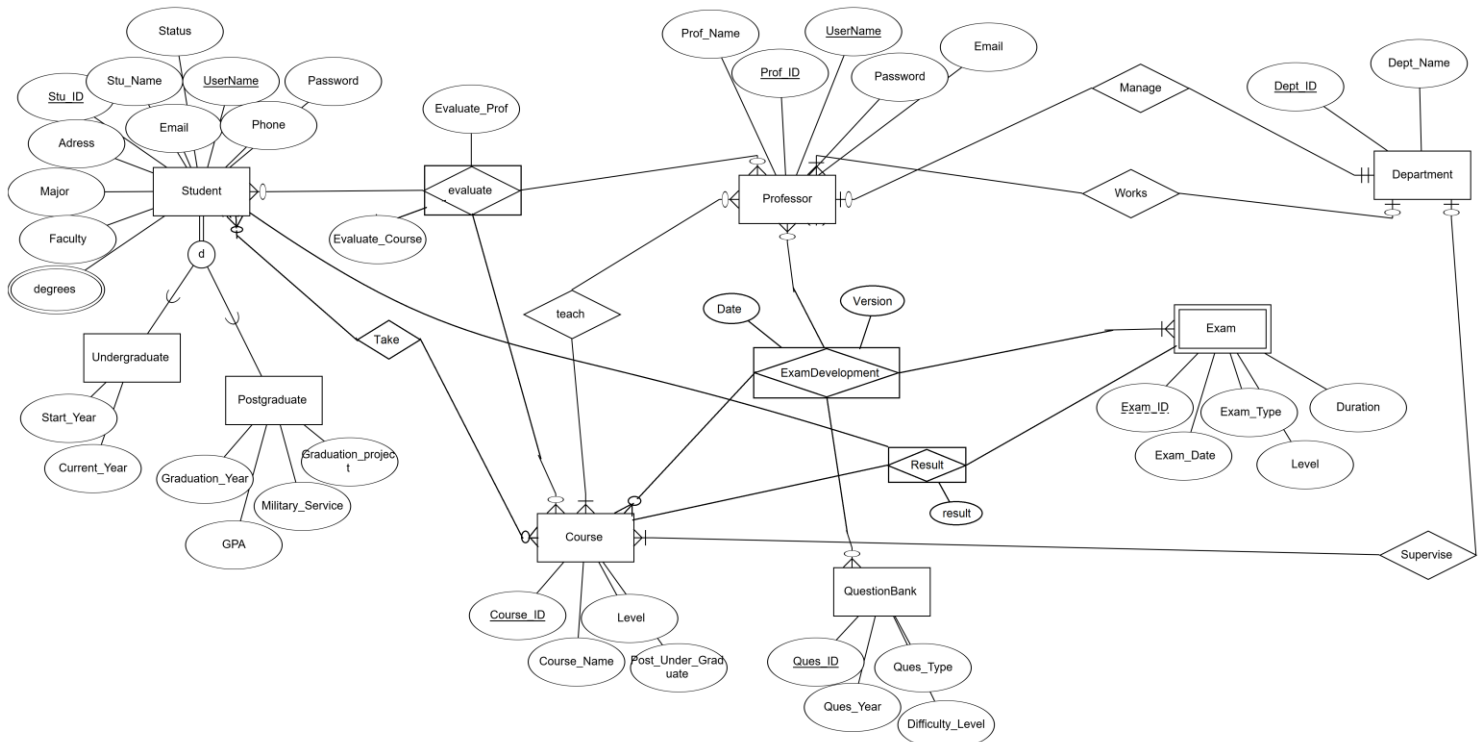
5_ Supervise (Department Supervise the development of the exam)

6_ teach (professor may teach one or more course)

7_ take (Students take courses)

8_ evaluate (student evaluate the course and the professor)

ERD

Status
Stu_Name
UserName
Password
Stu_ID
Email
Phone
Adress
Major
Faculty
degrees
Student

Evaluate_Prof
evaluate
Evaluate_Course

Prof_Name
UserName
Prof_ID
Password
Email
Professor

Manage
Dept_ID
Dept_Name
Works
Department

d

Undergraduate
Start_Year
Current_Year

Postgraduate
Graduation_Year
Military_Service
GPA
Graduation_project

Take

teach

Date
Version
ExamDevelopment

Exam
Exam_ID
Exam_Type
Duration
Exam_Date
Level

Result
result

Course
Course_ID
Level
Course_Name
Post_Under_Graduate

QuestionBank
Ques_ID
Ques_Type
Ques_Year
Difficulty_Level

Supervise

Mapping

Department
Dept_ID
Dept_Name
Mrg_ID   (FK)

Professor
Prof_ID
Prof_Name
UserName   (U)
Password
Email
Dept_Work   (FK)

Take
Stu_ID   (FK)
Course_ID (FK)

teach
Prof_ID   (FK)
Course_ID (FK)

QuestionBank
Ques_ID
Ques_Year
Ques_Type

Student_degrees
degrees
Stu_ID   (FK)

Postgraduate
Stu_ID   (FK)
Graduation_Year
GPA
Military_Service
Graduation_project

Student
Stu_ID
Stu_Name
Email
UserName   (U)
Password
Phone
Adress
Major
Faculty
Status

Undergraduate
Stu_ID   (FK)
Start_Year
Current_Year

Course
Course_ID
Course_Name
Post_Under_Graduate
Level
Super_Dept   (O)(FK)

Exame_Development
Prof_ID   (FK)
Ques_ID   (FK)
Course_ID (FK)
Date

Exam
Exam_ID
Exam_Date
Exam_Type
Level
Duration
Prof_ID
Ques_ID   (FK)
Course_ID

Result
Stu_ID   (FK)
Course_ID (FK)
Exam_ID   (FK)
Grade

evaluate
Prof_ID   (FK)
Stu_ID   (FK)
Course_ID (FK)
Evaluate_Prof
Evaluate_course