UNIVERSITY DATABASE MANAGEMENT SYSTEM(UDMS)

تم بواسطة :

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Project Description:

UNIVERSITY DATABASE MANAGEMENT SYSTEM (UDMS) deals with the Data of university, faculty, and student information within the university. UDMS is an automation database system, which is used to store the information about employees(teacher , Cleaner and Security man)such as(name, Employee ID, address, telephone number, date of birth, salary).Information about faculty such as (Faculty name and Number of Students).information about Departments such as(Department name ,number of student).information about student such as(student name, student ID, address ,telephone number, date of birth).information about buildings such as (building name).information about courses such as (course name, course code, course degree). Starting from registration of a new student in the university, it stores all the details regarding marks of the students and also stores all information about Graduation project such as (project name, project code).

Assumptions and Constraints:

Assumptions:

University:

- University must have one University President

Faculty:

- faculty must have at least one Departments
- Department must be in Faculty
- faculty must have one Dean of the Faculty
- student must be in Faculty

Department:

- Department must be in at least one building
- Department must have at least one Teacher

Building:

- Building may contain many departments(0 or many)
- Building must have at least one Cleaner and one security man

Teacher:

- Teacher(professor, teaching Assistant) must belong to one Department
- Professor may teach many courses

- Professor may supervises many Graduation Project
- teaching Assistant must teach at least one course
- Teaching Assistant may guides many projects

Cleaner:

- Cleaner must clean at least one building

Security man:

- security man must guard at least one building

Course:

- course must have at least one professor
- course must have at least one Teaching Assistant
- course may taught or not
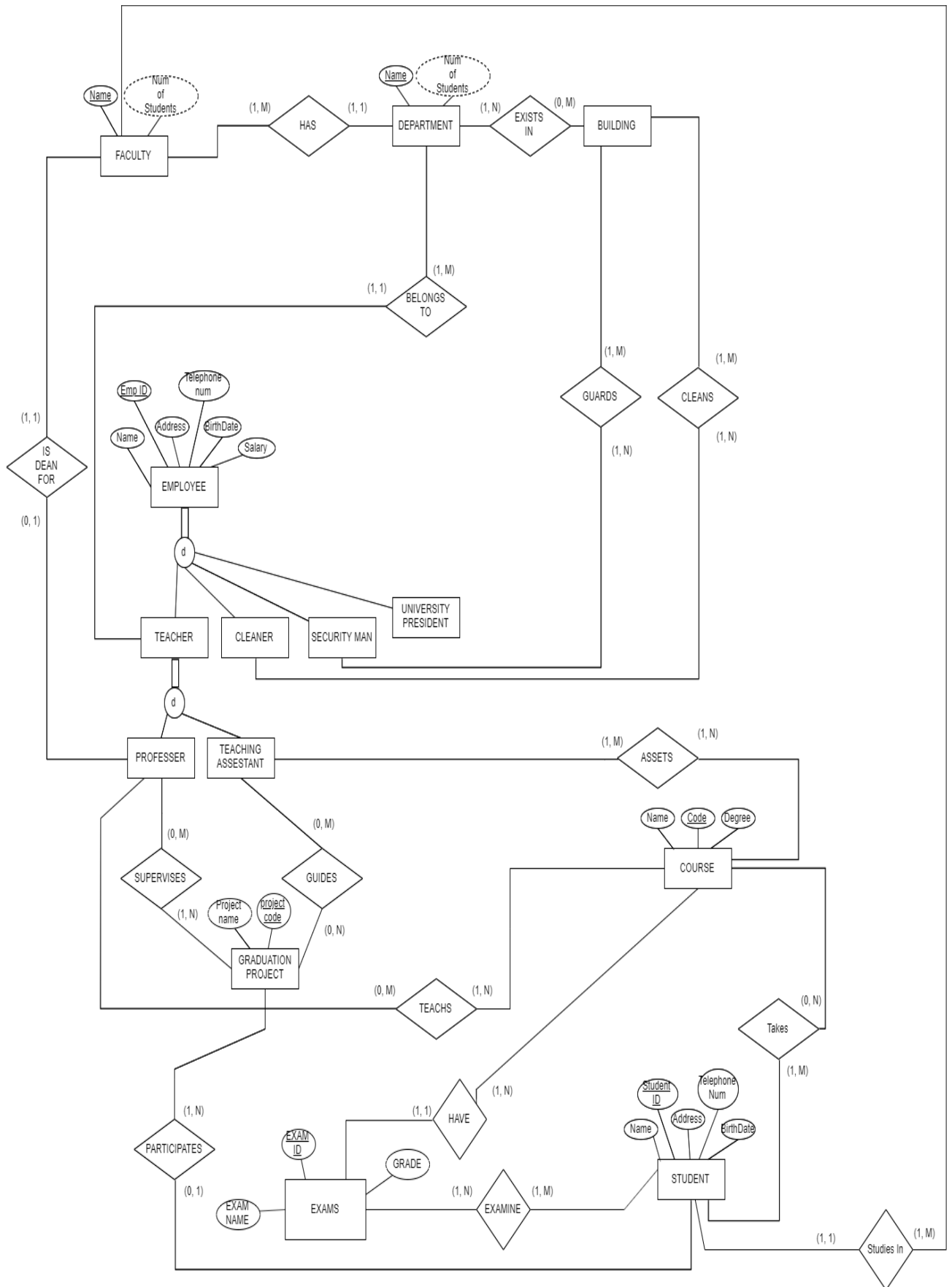- course must have exam

Student:

- student must be in Faculty
- student must take courses
- Student can take many course and many students can take same course
- Student may have Graduation project in last year

Graduation Project:

- Graduation project must have at least one professor
- Graduation project may have Teaching Assistant (0,m)

Constraints:

EER DIAGRAM:

Relation DIAGRAM:

UNIVERSITY RELATIONAL SCHEMA

Exists in

Building_Name	Building_Address	Department name

BUILDING

Name	Address	Telephone Number

FACULTY

Name	DEAN_ID

DEPARTMENT

Name	Faculty_Name	Faculty name

UNIVERSITY PRESIDENT

EMPLOYEE_ID

EMPLOYEE

Name	ID	Address	Telephone Number	BirthDate	Salary	Department Name

TEACHER

EMPLOYEE_ID

CLEANER

EMPLOYEE_ID

SECURITY MAN

EMPLOYEE_ID

CLEANS

CLEANER_ID	Building_Name	Building_Address

PROFESSOR

TEACHER_ID

TEACHING ASSESTENT

TEACHER_ID

GUARDS

SECURITY_MAN_ID	Building_Name	Building_Address

COURSE

Name	Code	Degree	Professor_ID

TEACHS

Professor_ID	Course_Code

ASSETS

TA_ID	Course_Code

TAKES

Student_ID	Course_Code

STUDENT

Name	ID	Address	Telephone Number	BirthDate	GRAD_PROJECT_ID	Faculty Name

SUPERVISES

Professor_ID	Project Code

GRADUATION PROJECT

Name	Code

GUIDES

Project_Code	TA_ID

EXAM

ID	Name	Grade	Course_code

EXAMINES

Student_ID	Exam_ID