EMU415 DBMS Term Project

team_yes_sql

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Objective

The EMU Hacettepe Personal Development Platform is a platform aimed at increasing knowledge exchange among students and graduates of the Industrial Engineering Department at Hacettepe University. It aims to enhance students' skills by sharing information on which industries our graduates work in, and how they acquire the necessary knowledge in these sectors.

Features

- **Graduate Sector Insights:** A feature allowing graduates to share their industry experiences, including sectors they work in, knowledge acquisition methods, and career development tips. Skill and Knowledge

- **Gap Identification:** Tools to help students identify areas for improvement by comparing their current skills and knowledge with those of graduates in various industries.

- **Resource Sharing Platform:** A platform for sharing industry-specific resources such as articles, webinars, and online courses (Udemy, Coursera etc.) to enhance students' skills and knowledge.

Relations and Their Attributes as an Initial Design

1. **users**

   - user_id (Primary Key)
   - first_name
   - last_name
   - email
   - role (e.g., Student, Researcher, Graduate)
   - join_date
   - graudation_date
   - erasmus_id (Foreign Key)
   - master_id (Foreign Key)
   - job_id (Foreign Key)
   - grad_project_id (Foreign Key)
   - linkedin

2. **jobs**

   - job_id (Primary Key)
   - position_title
   - description
   - skills_required (Foreign Key (skill_id))
   - company_id (Foreign Key)
   - location
   - salary_range
   - starting_date

3. **erasmus**

   - erasmus_id (Primary Key)
   - school_name
   - country
   - duration
   - department

4. **master**

   - master_id (Primary Key)
   - master_school_name

- department
- city

5. **graduation_projects**

   - grad_project_id (Primary Key)
   - title
   - description
   - company_id (Foreign Key)
   - skills_required (Foreign Key (skill_id))

6. **companies**

   - company_id (Primary Key)
   - company_name
   - sector
   - founding_year
   - employee_number

7. **skills**

   - skill_id (Primary Key)
   - user_id (Foreign Key)
   - skill_name
   - skill_level
   - last_used
   - experience_years
   - related_projects
   - skill_source

Relations

1. **Users**:

   - **One-to-One**: Each user may have only one Erasmus ID, Master ID, Job ID, Graduation Project ID, and LinkedIn profile.

   - **Many-to-One**: Many users can have the same role (e.g., Student, Researcher, Graduate).

2. **Jobs**:

   - **Many-to-One**: Many jobs can belong to the same company.

   - **One-to-Many**: Each job requires multiple skills.

3. **Erasmus**:

   - **One-to-Many**: Each Erasmus program can have multiple students (users).

4. **Master**:

   - **One-to-Many**: Each Master program can have multiple students (users).

5. **Graduation Projects**:

   - **Many-to-One**: Many graduation projects can belong to the same company.
   - **One-to-Many**: Each graduation project requires multiple skills.

6. **Companies**:

   - **One-to-Many**: Many users can work for the same company.

7. **Skills**:

   - **Many-to-One**: Many users can have the same skill.

Database Schema

erasmus
🔑 **erasmus_id**	int
school_name	varchar
country	varchar
duration	varchar
department	varchar

master
🔑 **master_id**	int
master_school_name	varchar
department	varchar
city	varchar

graduation_projects
🔑 **grad_project_id**	int
title	varchar
description	text
skills_required	int
company_id	int

users
🔑 **user_id**	int
first_name	varchar
last_name	varchar
email	varchar
role	varchar
join_date	date
graduation_date	date
erasmus_id	int
master_id	int
job_id	int
grad_project_id	int
linkedin	varchar

skills
🔑 **skill_id**	int
user_id	int
skill_name	varchar
skill_level	varchar
last_used	varchar
experience_years	int
related_projects	text
skill_source	text

companies
🔑 **company_id**	int
sector	varchar
company_name	varchar
founding_year	date
employee_number	int

jobs
🔑 **job_id**	int
position_title	varchar
description	text
skills_required	int
company_id	int
location	varchar
salary_range	varchar
starting_date	date

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