

CS480 – Course project

Summer 2020

Database: Japan Job Board

Description:

Consider the design of the following database system for managing a job board of jobs in Japan. A user can browse the database after registering for an account, then after registration that person will have a their own unique username created by them, a password, first name, last name, visa sponsorship, is an admin, and Japanese proficiency level. If a registered user is an admin, then they can only add, delete, view, and edit any jobs in the database. Otherwise a non-admin user can view the database of jobs. The attributes of a company are a unique username, password, company name, company location, company bio, and company size. The job posted by an admin consists of a unique job ID that increments automatically after each posting, a job title, job location, job salary, job language requirements, job description, wanted residence (japan only, or willing for overseas), and employment type (part time or full time).

Project Part 2 – CRUD (Create, read, update, and delete)

Deadline: July 18, 2020

List of entities:

1. Person
2. Company
3. Job

Based on the Demo (Part 1), implement the following functionality using Java and SQL with necessary GUI interfaces.

1. Insert/delete/update/read a **Person (user) {all attributes} [user registration is insert and admin can insert new user too, admin can delete, admin can update profile. Only the admin can read another user]**
2. Insert/delete/update/read a **company {all attributes} [admin has full control]**
3. Insert/delete/update/read a **Job (all attributes except the job_id). The job_id should be generated by the system automatically using MySQL autoincrement.**

Project Part 3 – Queries

Deadline: August 1, 2020

Based on the Demo, implement the following functionality using Java and SQL with necessary GUI interfaces.

Trivial Queries:

1. List all Vulgar Usernames in tb_user in descending order
2. List all Company Bios with vulgar language regardless of case
3. List all Jobs not in Tokyo

Non-trivial Queries:

1. List all the jobs where the occurrence 'English' exists in the job description and only in Tokyo
2. Count the number of JLPT N2 and JLPT N1 (language_proficiency) users and divide by all to show a percentage
- X3. View All Jobs with a Company Size Less Than 501
4. List average salary and show company with highest contribution of increasing the average salary
- X5. Show Jobs where company is from Koriyama where a job requires JLPT N1, JLPT N2, or Native language skill
- X6. View All Programming Jobs and show the company's bio