DAMG 6210: Data Management and Database Design Teacher: Manuel Montrond Section 01

P3. Final ERD: STUDENT JOB TRACKING DATABASE

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Introduction

Student Job Tracking Database - mainly focuses on college students searching for Jobs, COOP, Internships or a prospective career growth opportunity. The portal would help students to navigate opportunities based on the type of Organization, Job profile/posting, Location etc. Students can easily understand the skills required for a specific job posting by viewing an Organization requirements and upgrade their required skills as listed in the description. Our portal would also allow the students to easily track their applications by linking their profiles on professional platforms like on LinkedIn to analyze their own student profile which would help to identify the gaps and enhance the needed skills.

Scope

Every student will have an access to their own data. The scope of the project would be improved when it is maintained at a university or local region level to analyze the data and help students identify the most active job openings and hirings of any company in a particular location. This would also help the university to identify the most demanded skills to constantly update the underrated skills so as to update their courses, subjects and syllabus accordingly. The portal would also help by creating a link between the Students and Advisors to provide an opportunity to gather valuable insight information. Another benefit of this would be that University can look at a student's skills and contact them individually to guide and provide the required mentorship.

System Overview

APPLICANT	PLATFORM	EMPLOYEE
Student	Application	Location
Course	Login	Qualification
Transcript	Platform	Required Skill
Has skill	Status	Required Qualification
Acquired Qualification	Skill	
	Organization	

DAMG 6210: DATA MANAGEMENT AND DATABASE DESIGN **Teacher: Manuel Montrond** FINAL ERD: STUDENT JOB TRACKING DATABASE **GROUP 10** PLATFORM SCHEMAS **APPLICANT** PK Posting ID: INT ORGANIZATION PLATFORM REQUIRED_SKILL FK Platform_ID: INT FK Posting_ID: INT FK Skill_ID: INT Years_Of_Exp: INT FK Organization_ID: INT Name: VARCHAR(50) EMPLOYER URL: VARCHAR(2000) Date_Posted Last_Date_To_Apply: DATE FK Student ID: SKILL PK Skill_ID: INT STUDENT SKILL INT INT INT INT LOCATION PK Aplication ID: VARCHAR(50) Street City: VARCHAR(20) STATUS FK Posting_ID: VARCHAR(25) INT VARCHAR(50) REQUIRED QUALIFICATON Status_Description: VARCHAR(50) Eff Status start date: DATE Eff_Status_end_date: DATE VARCHAR(50) Source: VARCHAR(50) STUDENT PK StudentiD: INT Name: VARCHAR(50) ACQUIRED_QUALIFICATION COURSE PK Trasncript ID: PK Course_ID: FK Student_ID: Course_Name : VARCHAR(50) NUMERIC FK Course_ID: DOB: Credits CHAR(2) Grading_Type : VARCHAR(10) Semester: VARCHAR(20) Course_Status : VARCHAR(50) Graduation_Date: DATE ADVISOR PK Advisor_ID: VARCHAR(50) Email: VARCHAR(40)

Entity Details

Entity Name	Description
Student	An Entity with all students' ID, demographic and contact details
Course	An Entity with all course names, IDs
Platform	An Entity with different platforms and respective URLs that are known Ex: LinkedIn
Advisor	An Entity with all Advisors and their contact information
Status	An Entity with different status names
Skill	An Entity with all Skills
Qualification	An Entity with all qualifications
Organization	An Entity with all Organizations and their URLs
Location	All known locations (Addresses). This is a common Entity; the ID can be used everywhere where location details are needed
Posting	An Associative Entity that has details related to all the present and past job postings. Ex: Organization ID which posted the job, posting date, Qualification
Transcript	An Associative Entity with grades of students in each course
Has_Skill	An Associative Entity containing skills that are possessed by a Student
Acquired_Qualification	An Associative Entity with Qualifications that a student has obtained
Login	An Associative Entity with all the students and platforms linked
Application	An Associative Entity with all students and their job applications
Required_Skill	An Associative Entity with skills and years of experience required for each job posting
Required_Qualification	An Associative Entity with Qualifications required for each Job posting

Business Rules

- A student must have only one Advisor. However, an Advisor may have multiple students
- ➤ LocationID in Organization is Head Quarter location
- > For each position at different locations, another posting is provided
- > An Organization may hire more than one student
- ➤ A Student may apply to more than one Job Positions
- ➤ A Student may have zero or many Qualifications
- ➤ A Student may enroll in multiple Courses

One Drive Link for files: https://northeastern-

my.sharepoint.com/:f:/g/personal/sethi i northeastern edu/Eo8NWzoXLSIKjHLVpVO1cwYBJxjjQAZWIdPtkYubzbfYDA