CS480 – Course project

Summer 2020

Database: Computer Science Job Database

# **Description:**

Consider the design of the following database system for managing a computer science job database: A table of all companies with job openings. The company have unique names, can have variable job types, have a unique id number and can belong to more than one category (fortune 500, top 100 startup, etc.). The next table helps keeps track of the job openings and application requirements at these various companies. The applications table should consist of the location of the job, its estimated salary, job description, the position being offered, a field to check the applied status (yes/no) and company id corresponding to the companies from the companies table. The last table exists to keep a track of the progress of applications which have been applied. This results table will have a field confirming about receiving the interview call, and also stores the id.

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

Deadline: July 18, 2020

# **List of entities:**

1. Applications

2. Results

3. Companies

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

# 1. Insert/delete/update/read **Applications** (all attributes except the company id). The company id should be generated by the system automatically using MySQL autoincrement.

# 2. Insert/delete/update/read **Companies** (all attributes except the id-number). The id-number should be generated by the system automatically using MySQL autoincrement.

# 3. Insert/delete/update/read **Results** (all attributes except the company id). The company 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 Applications members

2. List all Results members

3. List all Companies members

**Non-trivial Queries:**

# 1. List all applications which have been applied on.

# 2. List all job application with salary greater than (some amount).

# 3. Find all the companies from which interview calls were received.

# 4. List all applications, with preferred location, position name and company name.

# 5. List all companies that have a certain type of job opening, with job specific requirements.