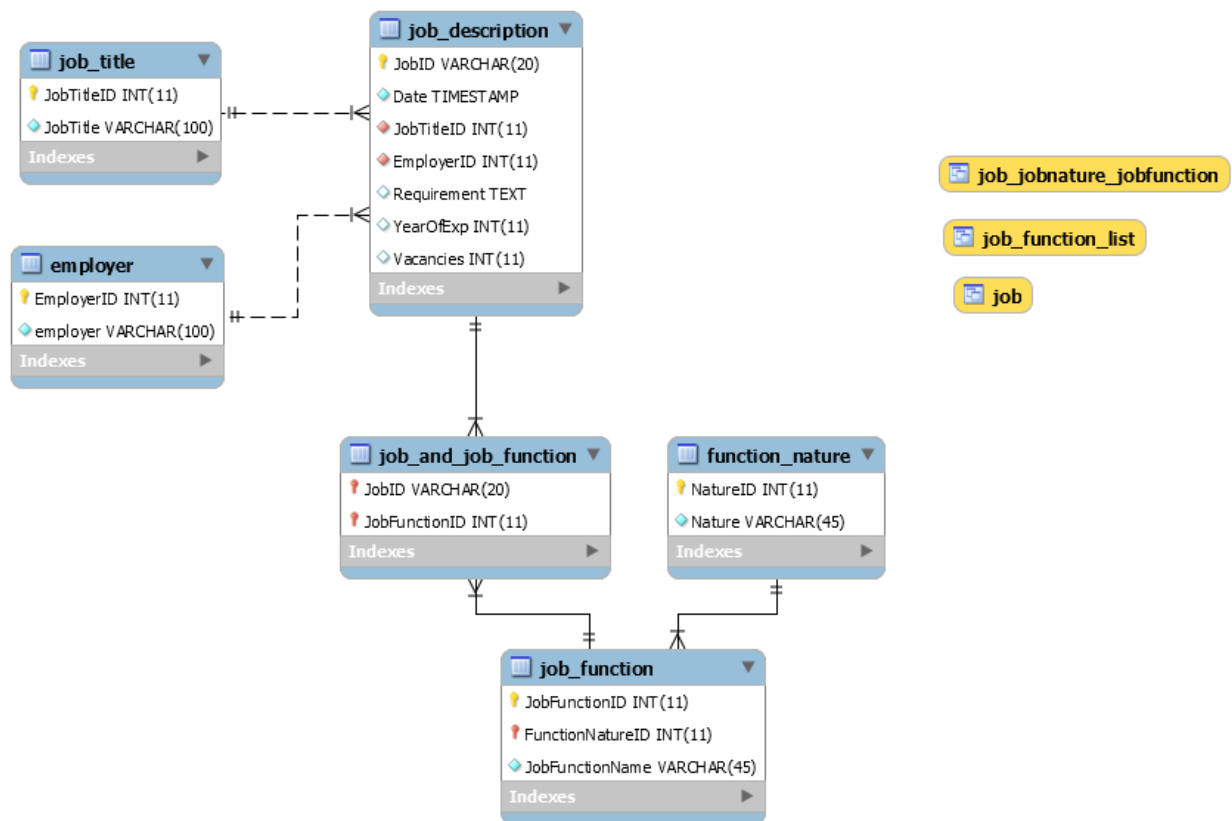


Documentation for Job Vacancy system

1. Schema Design (ER diagram)



Views:

job_job_nature_jobfunction: A view combine JobID, Job nature, Job function

job_function_list: A view contains all job functions, include job nature name.

job: A view contains Job ID, Date, Job Title, Employer, Requirement, Year of Experience, Number of Vacancies.

Table:

job_title: as multiple jobs can have same job title, therefore a separate table storing the job title name

employer: as multiple jobs can have same employer or company name, therefore a separate table storing the employer or company name

function_nature: As multiple jobs functions have same nature like Information Technology, Finance. Therefore, a separate table for storing the job function natures.

Job_function: As multiple jobs may include same job functions, therefore storing the job functions separately in another table.

Job_and_job_function: As a single job can have multiple job functions, therefore a separate table for matching jobs with job functions.

Job_description: This is the main table to store the jobs. Job ID is unique and the primary key of this table. Other are some attributes of the job, JobTitleID match the job title in job_title table. EmployerID match the employer name in employer table. Requirement, YearOfExp, Vacancies are other attributes.

2. Server Installation:

2.1 Database Setup

- The system is using MySQL as database. Therefore first install MySQL workbench in <https://dev.mysql.com/downloads/workbench/>
- Set up the MySQL Connection as follow:
 - Hostname: 127.0.0.1; Port: 3306
 - Username: root
 - password: loginpassword
- If set up the database not as follow, you need to correct some part of code inside index.js
- import the **`Dump20190413.sql`** file inside the Database. This only imported the structure of the database only. For record, you need to input manually or create record after creating the server.

2.2 Node.JS setup

- install Node.JS and download installer in <https://nodejs.org/en/download/>
- install the dependencies in the project file, the dependencies as follow:
 - npm i mysql
 - npm i express
 - npm i body-parser
 - npm i ejs
- When you want to start the server, go to the project directory in command line interface and type "npm start"

3. Instruction to use the system – default URL is 127.0.0.1:3000

3.1 Add Job Information:

- This system require user to create the information separately. User need to add employer or company name, job title name, job nature, job function to add the job correctly

3.1.1 Add job title name, job nature, job function

- First 2 fields can add independently on the “host/add” page, default is “127.0.0.1:3000/add”
- The job function field need to choose the job nature first and type in the job function.

3.1.2 Add Job

- In the same page of Add job title name, you can add job in the lowest part.
- You need to type a unique Job ID as job number, choose job title, job title. Type in date, requirement, year of experience, number of vacancies. Choose job functions. Use “ctrl+click” to choose addition job functions.

3.2 Edit Job

- In the read page (default: 127.0.0.1/read), you can click the “Edit” button of job to edit the specific job.
- If require new information outside database, need to add the information in create page first. The information needs to create independently is the field mention in 3.1.1.

3.3 Delete job

- Similar to edit job, press the delete button under each job to delete it
- System will prompt user to confirm deletion of job

3.4 Query a job list in JSON format

- In any REST client, use a GET request with URI: 127.0.0.1:3000/JobList
- The client will retrieve the text in JSON format in the console.