MySQL

As a Job Search Tool

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Code First Girls - Introduction to Data & SQL

Contents

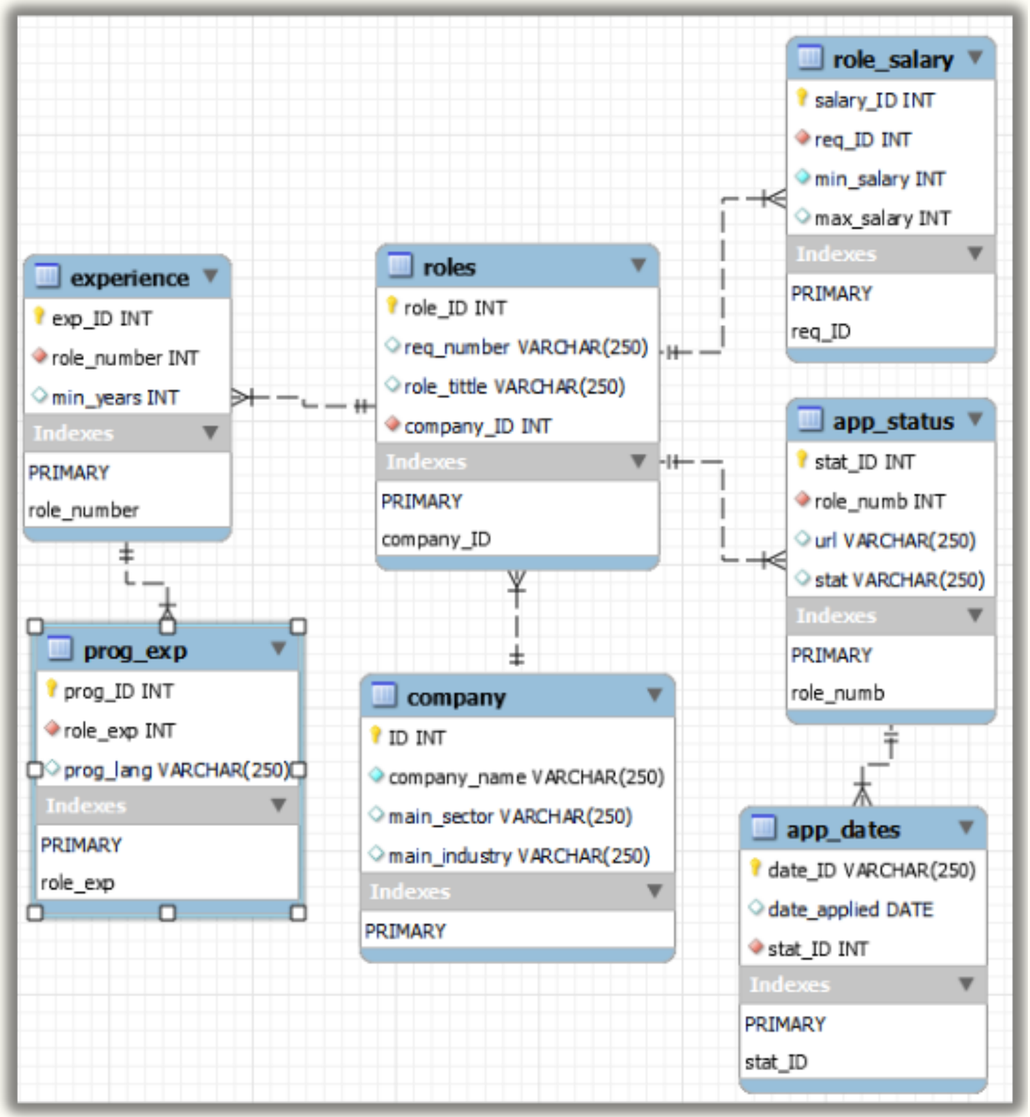
Introduction

Today, searching for a role has become a tiresome task with multiple hoops to jump through and for many, thousands of applications to complete.

Rejection after rejection can make the process feel pointless. However, some benefits exist in the data created by completing these application. These include having a better understanding of the market and insights on your preferences.

SQL is a tool that can help us not only keep track of our progress, but allows to better analyze it!

Database

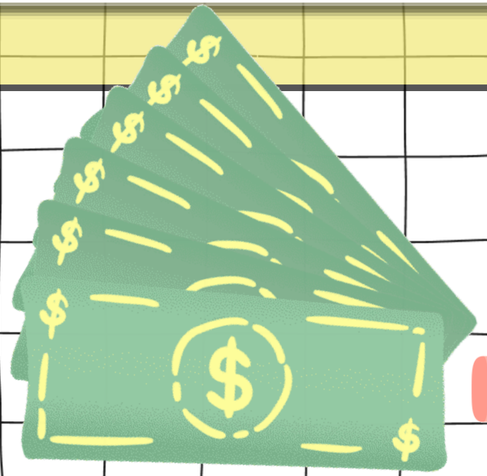


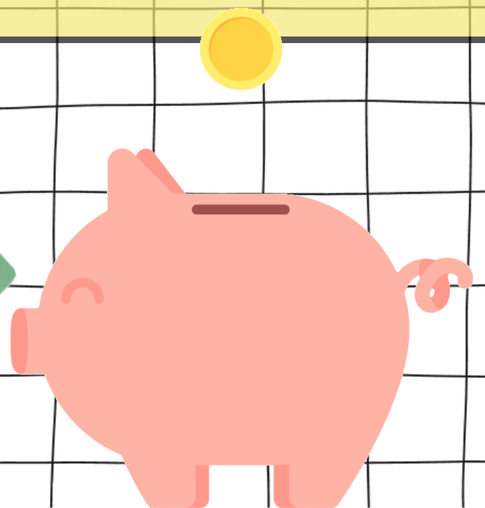
- The DB diagram helps us to visualize the tables created and how they relate
- The jobs_search database is made up of seven (7) tables
- Table ‘roles’ has a one to many connection, as well as ‘app_status’, and ‘experience’
- Tables ‘prog_exp’, ‘company’, ‘role_salary’, and ‘app_dates’ have one to one connection
- All but ‘company’ have foreign keys, meaning a column references a primary key in other

Joins

- Say we want to look at the minimum salary of the roles we applied to
  - Let's use a LEFT JOIN to combine the 'roles' and 'role_salary' tables
  - We can join at the FK+PK, which are 'role_ID' and 'req_ID'
  - In the SELECT statement, we chose which columns we want displayed

req_number	role_tittle	company_ID	min_salary
R143218	Associate Value Consultant	1	91900
R143561	Sales Operations Analyst	1	61600
NULL	Senior Strategic Operations Associate	9	124000
NULL	Programs and Business Operations Lead	2	160000
R-206758	Specialist, Product Management (Data Science ...	5	89000
NULL	Analyst, Visa Consulting & Analytics	10	113700
A26872	Business Operations Solution Associate	8	77000
NULL	Associate Product Marketing Manager, Early Ca...	4	85500
NULL	NULL	7	0
NULL	Data Analyst	6	176400
24000728	Digital Data Analyst (Merchant Digital Analytics ...	3	60000





Stored Function

We can store a function by using CREATE FUNCTION. What if we want to look at the average minimum salary of all the roles applied? We can create the function named avg_min_sal() and run it with a SELECT statement when we need this information

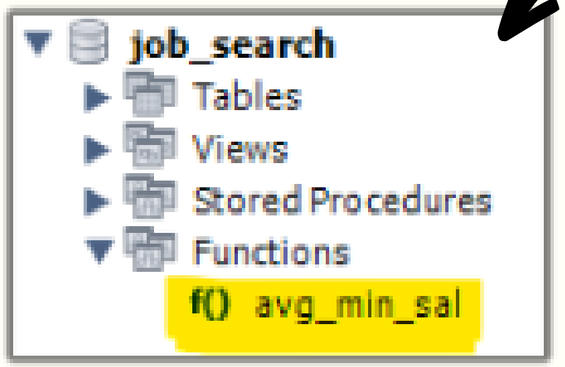
Query

A query helps us extract data. Say we want to know which companies have an ideal minimum salary and also is not missing the maximum salary. The query will look for the company info, and here we specify columns to be displayed.

Sub-Query

The sub-Query is inside the main query. In the example above, the sub-query will be looking at obtaining the salaries matching the criteria indicated. For this example we also used JOIN to extract all the information desired.

avg_min_sal()
94463.64



company_ID	min_salary	max_salary	company_name
3	124000	137000	AMEX
4	160000	194500	Google
10	176400	198000	VISA

Procedure

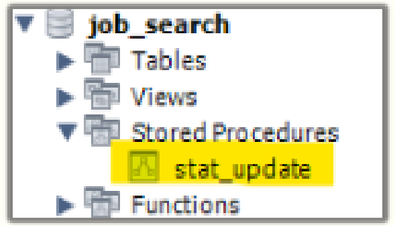
Procedures are similar to functions, but outputs multiple values. In this example we opted to search one value by setting a parameter. Here we check the status of an app using the URL, so that we take steps to update if needed.

View

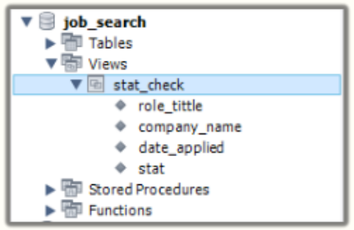
This option creates give the option to display a table that will not be edited. Imagine we want to share our progress with a mentor. We will share the role name, company, date of app, status

Data Extraction

Another way to extract date from our DB is to use GROUP BY or HAVING. For the first, let's look at which industries and sectors are represented in the roles applied. To look at which industies are welcoming to entry level, use HAVING.



url	stat
https://www.uber.com/global/en/careers/list/1...	Not Applied



role_tittle	company_name	date_applied	stat
Associate Value Consultant	Adobe	2024-01-12	In Process
Sales Operations Analyst	Adobe	2024-01-28	In Process
Programs and Business Operations Lead	AirBnB	NULL	Not Applied
Digital Data Analyst (Merchant Digital Analytics ...	AMEX	NULL	Not Applied
Associate Product Marketing Manager, Early Ca...	Google	2023-12-18	Submitted
Specialist, Product Management (Data Science ...	Mastercard	2023-12-15	Application Received
Data Analyst	Meta	NULL	Not Applied
NULL	Spotify	NULL	NULL
Business Operations Solution Associate	TikTok	2023-12-12	Resume Screening
Senior Strategic Operations Associate	Uber	NULL	Not Applied
Analyst, Visa Consulting & Analytics	VISA	2023-12-15	Not Considered

main_sector
Technology
Consumer-Cyclical
Financial
Communication

main_industry
Software-Infrastructure
Travel
Credit
Internet-Content
Software-Application

main_industry
Credit
Internet-Content

Conclusions

Gained a better understanding of joins, how to best utilize them when using sub-queries. One of my goals in completing course.

When creating tables for a database, it's important to think how the normalization level will impact your ability to extract insights with minimal errors.

When presented with errors, it's important to research further into the issue, this will ensure better comprehension and optimization of SQL .

Thank You!

https://github.com/AnabelleCE