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Assessment Title: COMP20240 MySQL DB assignment (2021-2022): Departments Vacancies Database

Module Title: COMP20240

The database consists of five tables, the four outlined in the assignment brief -candidate details, departments, interview details and positions available, alongside a fifth table to store the skills that each of the candidates stored in candidate details possesses. The candidate details table consists of six attributes “idcandidate”(INT) which is also the primary key, “FirstName” (VARCHAR 45), “LastName”(VARCHAR 45) , “Date_of _Birth” (DATE), “telephone”(VARCHAR 45) and “address" (VARCHAR 45) . The addition of date of birth was added to help distinguish between two candidates of the same first and last name, if that were to occur. The skills attribute was excluded and instead it was decided to create a separate table to include these details.

Candidate skills has seven attributes – an “idcandidate” (INT) attribute which is a foreign key to idcandidate in candidate details, alongside six columns which are linked to a given skill. Each skill (administrative, managerial, secretarial, accounting, engineering and I.T) are given either a value of Yes (capital “Y” , small “es”) or No (capital “N”, small “o”). The assumption was made that if “Yes” is selected for a particular skill for a particular candidate, it implies that they have met the minimal level of that skill to progress forward for a job interview in a position where that skill was needed. The detail of how highly skilled they were however in this skill would be decided by the interviewer when deciding to give or not give a job. Each of these skills has been set to VARCHAR 3 , so nothing longer than yes can be entered. This was an extra table added to allow suitable candidates to be linked to suitable jobs, without adding unneeded detail to the candidate details table.

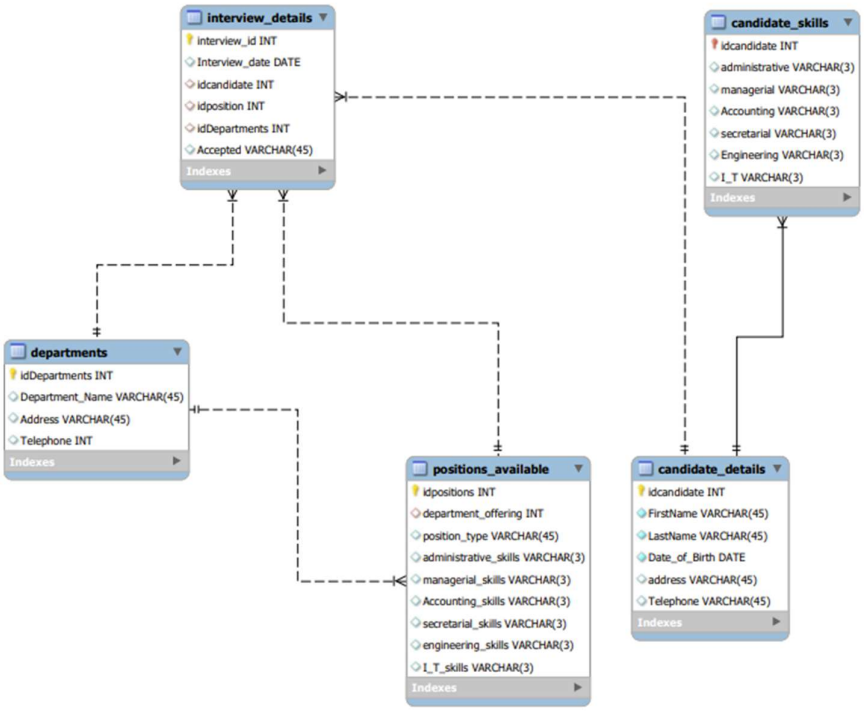
The table departments was made up of four attributes –“idDepartments”(INT), “department_name” (VARCHAR 45), “address” (VARCHAR 45) and “telephone”(INT). It was assumed for this assignment that the company was only based in one location for example one building with different blocks and that there was only one of each department in the company. If the company was to expand to several locations or have more than one of a

given department the table would be changed to reflect this by having the department name and city in the department name field for example marketing_dublin, marketing_cork. The address would also be changed to reflect this for example block1_dublin.

The positions available table consists of nine attributes “idpositions”(INT) which is a primary key, “department_offering”(INT) which is a foreign key linked to the departments table, the title of the job (“position_type (VARCHAR 45)),alongside the six attribute skills and if that skill is desired for a given position. Similar to the candidate skills table if a skill is required it is entered “Yes” or if not “No”. These desired skills can then be linked to candidate skills to decided how to select appropriate people for the interview process.

The interview details table consists of six attributes – “interview_id”(INT) which is a primary key, “interview_date”(DATE), “idcandidate” (INT) which is a foreign key to candidate details, “idpositions” (INT) which is a foreign key to the positions available table ,”idDeparments” (int) which is a foreign key to the departments table and finally an attribute to indicate if the candidate has been accepted for the job or not.

All foreign keys were set to cascade on update to allow for easier editing and updating of the tables. This assignment was also done using the windows operating system.


interview_details
interview_id INT
Interview_date DATE
idcandidate INT
idposition INT
idDepartments INT
Accepted VARCHAR(45)
Indexes
candidate_skills
idcandidate INT
administrative VARCHAR(3)
managerial VARCHAR(3)
Accounting VARCHAR(3)
secretarial VARCHAR(3)
Engineering VARCHAR(3)
I_T VARCHAR(3)
Indexes
departments
idDepartments INT
Department_Name VARCHAR(45)
Address VARCHAR(45)
Telephone INT
Indexes
positions_available
idpositions INT
department_offering INT
position_type VARCHAR(45)
administrative_skills VARCHAR(3)
managerial_skills VARCHAR(3)
Accounting_skills VARCHAR(3)
secretarial_skills VARCHAR(3)
engineering_skills VARCHAR(3)
I_T_skills VARCHAR(3)
Indexes
candidate_details
idcandidate INT
FirstName VARCHAR(45)
LastName VARCHAR(45)
Date_of_Birth DATE
address VARCHAR(45)
Telephone VARCHAR(45)
Indexes