

## Documentation for ballantyne13432788 Schema

This document illustrates the description of the database, discussion of the assumptions made, discussion of the reaction policies used, a description of the operating system used and ER Diagram.

### **Description:**

This database contains the advertising of positions for Hospitals which require specific skills. Included are databases containing information for interview details, position details, position skills required, candidate details, candidate skills and hospital details. By detailing the position and skills involved combined with the candidate and the candidate skills alongside the hospital details. A clear and concise interview process can be formulated in the interview details table.

### **Assumptions Made:**

- An application\_status column was made to track whether a candidate is offered a position. If a decision has not been reached on the status of an applicant, a variation of "Pending" should be used.
- One hospital can request many interviews for a position.
- One candidate can be invited to many interviews for the same position.
- A hospital can hire many candidates in relation to a position.
- Interviews can occur on particular dates.
- In general, in regard to the stored procedures, parametric queries were used where a "given" piece of data was required.
- Stored procedures that include parametric queries allowing you to insert a new row are labelled as follows "table\_name\_" + "addrow".
- Step 4, Q1 & Q2: All columns of the hospitals were intentionally left in for additional information.
- Step 4 Q8: This returns only the type\_of\_position column but is ordered by the hospitals advertising the positions.
- Step 4 Q10: This returns the candidate\_id of the applicant that was interviewed ONLY on the date given.

### **Reaction Policies:**

- Candidates can have multiple skills. This required a one-to-many relationship and the creation of a new table called candidate\_skills. A foreign key was made linking the candidate\_id of the candidate\_skills to the candidate\_id of the candidate\_details table.
- Similarly, positions can require multiple skills. This also required a one-to-many relationship and the creation of another table called position\_skills\_required. A foreign key was made to link the position\_id of the position\_skills\_required table to the position\_id of the position\_details table.

- The interview\_details table required the following information: interview\_id (Primary Key), position\_id, candidate\_id, hospital\_id, date and application\_status. Foreign keys were made for the position\_id, candidate\_id and hospital\_id to create a relationship back to their respective tables.
- Not Null was used on the data on the tables. This was used to prevent any loss of important information on the candidate, the position, the hospital or details regarding the interview.
- Primary Keys used were candidate\_id, skills, hospital\_identifier, interview\_id, position\_id and skills. This was to ensure a combination of not null and to uniquely identify each row were present.
- Columns including telephone numbers were purposely detailed as varchar(45) to allow for international dialling such as "+353".
- A combination of int and varchar(45) were used as datatypes for this schema. Varchar(45) was used for optimisation and has enough available characters to deal with any of the inputs.

#### **Operating System:**

- The operating system used for this assignment was Windows. I am running 64-bit Windows 10.

#### **ER Diagram:**

- Please see an ER Diagram on the following page.

