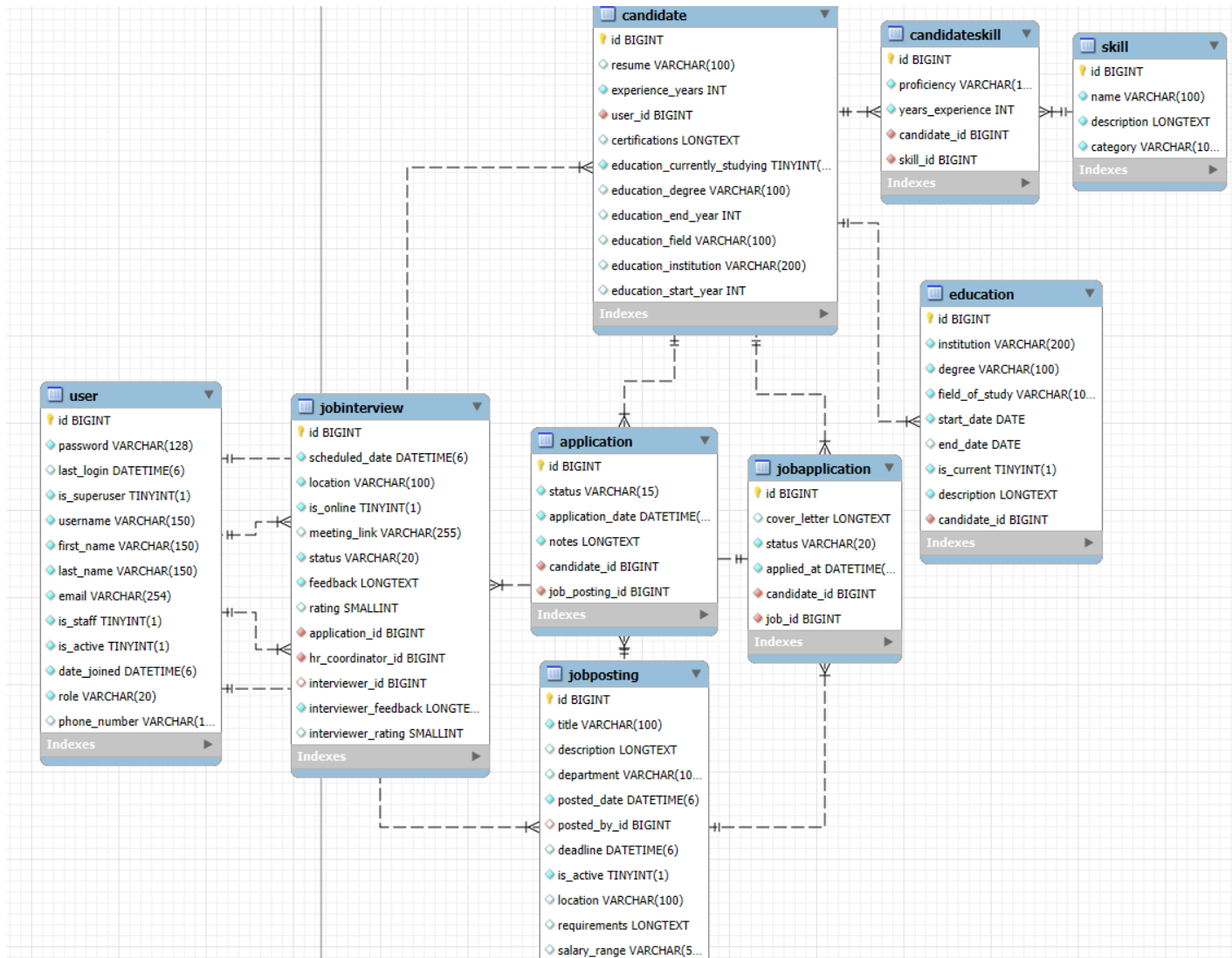


# Airline Recruitment System ERD Diagram



## Airline Recruitment System Database Design

### Database Overview

The Airline Recruitment System database was developed to handle the full range of recruitment activities that begin with user profile development through offering applicants job offers.

### Key Entities and Their Purpose

#### Users

My system uses the User table as its core component for maintaining all system users. Users get basic account storage at this location while the role field distinguishes their user types which are candidates, hr coordinator and interviewer.

### Candidate Profile Management

Candidate information is stored in the Candidate table. The User table contains one-to-one relationship with the Candidate table so each User maintains just one Candidate profile.

The main use case that was required for the project was the Skill and CandidateSkill tables. I developed an entire structure instead of maintaining skills as plain textual data.

The Skill table maintains a single instance of skills through standardized categories.

The CandidateSkill connects candidates to their skills by storing two pieces of information: proficiency level and year of experience.

Candidates demonstrate their skill proficiency to the HR Coordinator and interviewers.

### Education Tracking

Multiple degrees or certifications of candidates can be listed in the Education table through its many-to-one relationship with Candidate. The database uses an is\_current field to manage tracking active educational programs together with already completed academic achievements.

### Job Application Process

A JobPosting table contains all the available positions for recruitment. The table relates to the HR Coordinator in the user table who built each job posting to indicate its ownership status.

Through the JobApplication table the vital connection happens between candidates who apply for open jobs.

### Interview Management

JobApplication has a one-to-many connection with JobInterview through the table so that many interview sessions can occur for each application. It connects three different parties:

The candidates application being considered

The HR Coordinator who plans and coordinates the process

The Interviewer conducting the interview

The link between these three parties enables proper access to interview-related information.

### Design Decisions and Advantages

The database uses relationship types which show relationships between entities:

One-to-one for User to role-specific tables

One candidate can have multiple associated education records in this relationship type.

Many-to-many for Candidates and Skills

I had to ensure to select the appropriate data types for each field in the database to ensure smooth data handling here are some the decisions on datatypes that I made

Candidates can input their cover letters through the TEXT fields for longer content

VARCHAR with appropriate lengths for names and titles

The database contains DATE fields specifically for recording accurate time measurements

The database uses BOOLEAN flags to represent easy binary decisions

The database design fully supports every operational requirement and provides a stable structure that enables future development of the Airline recruitment Candidate-Skills management system