

## Topic

### Database Design for Recruitment System

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<https://github.com/rahatwads/University-course-registration-system>

#### Mission Statement

The Company's Recruitment System Database hopes to accelerate the recruitment process of an organization by centralizing its data around job postings, candidates, interview schedules, and hiring decisions. This will ensure the smooth flow, effective and systematic talent acquisition strategy of an organization

#### Overview

This design document portrays the database design for an integrated recruitment system that will ease the recruitment process. It solves some of the major pains in recruitment by automating certain parts of hiring.

#### Core Business Needs

The system will be able to cater to the following major recruitment issues:

##### 1. Job Posting Management

- Effectively creates and manages job postings
- Ensures job information is accessible easily for candidates

##### 2. Candidate Tracking

- Manages profiles of applicants and their applications
- Tracking candidates throughout the stages of hiring

##### 3. Interview Scheduling

- Offers interview scheduling
- Allows gathering of feedback from interviewers

#### 4. Communication Handling

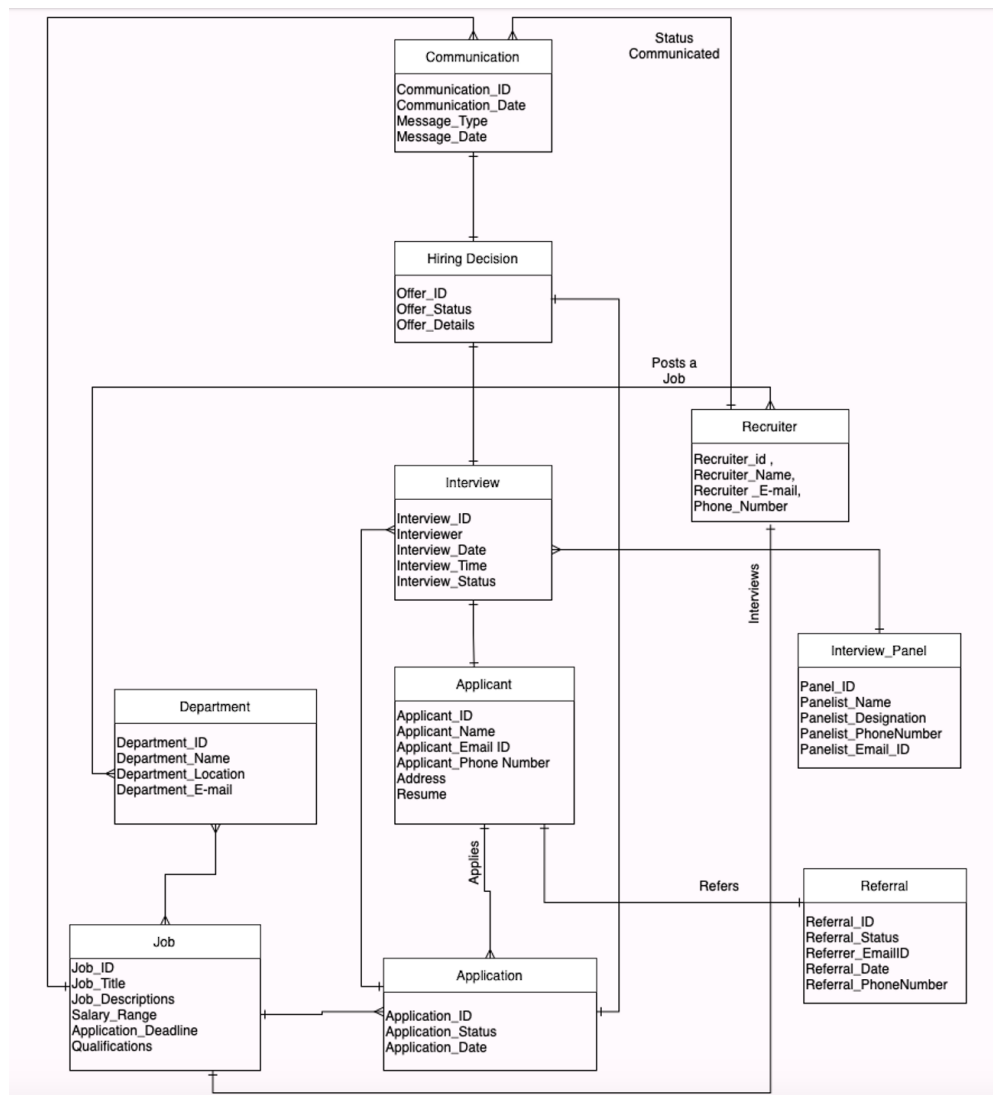
- Ensures a smooth flow of information between recruiters and candidates
- Avoiding delays in the hiring timeline

#### 5. Employee Referral System

- Keeps track of referrals from current employees
- Monitors referral hiring success rates

#### 6. Decision Documentation

- Records and tracking of hiring decisions
- Ensures transparency in the selection process



## System Components

### Key Entities

#### 1. Jobs

- Available positions
- Links to recruiters, gets applications

#### 2. Applicants

- Applicant information is stored
- Can apply to many jobs and receive many referrals

#### 3. Applications

- Matches candidates with job vacancies
- Referred by interviewing panels

#### 4. HR Recruiters

- Job posting and hiring process management
- Application and communication management

#### 5. Interviews

- Record of interview that a candidate evaluation is pending
- Tied back to Applications and Interview Teams

#### 6. Interview Teams

- Group of interviewers that assess applicants
- Provide feedback on the status of an application

#### 7. Referrals

- Records of employee recommendations of candidates
- Referral sources and outcomes tracked

#### 8. Communications Log

- Logs interactions by recruiters to candidates
- Allows clear record-keeping

#### 9. Hiring Outcomes

- Records final decisions on applications

- Documents outcomes if candidates are hired or rejected

#### 10. Departments

- Jobs organized according to company division
- Helps in categorizing and filtering positions

### Design Rationale

#### 1. Application as Central Entity

- Connects jobs with candidates
- Allows observation of individual applications

#### 2. Complete Interview Management

- Schedules and feedback coordination
- Comprehensive candidate evaluation possible

#### 3. Communication Tracking

- Accountability
- Record of interactions clear

#### 4. Structured Decision Recording

- Records the results of hiring
- Enables data-informed improvements in recruitment

### Relationships between Entities

The following is a brief explanation of how entities are related to each other in this ER diagram:

#### 1. Applicant to Application (1: N):

- One applicant can have multiple applications.
- This relationship depicts the Applicant who, through the entity Application, is associated with multiple job applications.

#### 2. Job to Application (1: N):

- One job posting may receive many applications.
- This means that for every job, many applicants can apply through the Application entity.

3.

Application to Interview (1:1):

- One application goes through one interview if selected.
- Interview entity keeps the record like Interview\_Date, Time, and Status.

4.

Interview to Interview\_Panel (N:M):

- Many panelists can conduct many interviews.
- Interview\_Panel entity defines the panel members who participate in many different interviews.

5.

Recruiter to Job (1: N):

- One recruiter posts many job postings.
- The Job entity manages the job openings via the recruiter.

6. Interview\_Panel to Recruiter (1: N):

- One recruiter can manage many interview panels.
- This defines how one recruiter could be responsible for several interview panels, for any number of interviews.

7. Referral to Application (1: N):

- One referral may lead to multiple applications for jobs.
- Referrals are those associated with applicants and job applications, recommending on behalf of applicants.

8. Department to Job (1: N):

- One department may have many job openings.
- The Department entity relates job postings to the respective department.

9. Hiring Decision to Job (1:1):

- One hiring decision is related to only one job posting.
- This relationship shows that by conducting interviews, one hiring decision is selected for each job opening.

10. Hiring Decision to Communication (1: 1):

- One hiring decision leads to one communication.
- This is for the communication of the decision between the company and the applicant, through which the status of hiring is updated.

11. Recruiter to Communication (1: N):

- One recruiter can communicate multiple times during the hiring process.
- Communications can occur throughout the different stages of recruitment, and this entity keeps track of them.

These relationships portray a hiring process where applicants apply for jobs, are interviewed by a panel, recruiters manage the postings along with communications, and decisions are communicated based on the outcomes of the interview.