Build the Datamodel

Entities

a. User:

UserID (Primary Key)

Username

Password

Email

Role (e.g., Admin, Recruiter, Applicant)

b. JobPosting:

JobID (Primary Key)

Title

Description

Location

Requirements

PostedDate

Deadline

c. Applicant:

ApplicantID (Primary Key)

FirstName

LastName

Email

Phone

Address

Resume (File or link to a document)

d. Application:

ApplicationID (Primary Key)

JobID (Foreign Key referencing JobPosting)

ApplicantID (Foreign Key referencing Applicant)

ApplicationDate

Status (e.g., Submitted, In Review, Rejected, Hired)

e. Interview:

InterviewID (Primary Key)

ApplicationID (Foreign Key referencing Application)

InterviewDate

Interviewer

Notes

Status (e.g., Scheduled, Completed, Pending)

Relationships:

a. A User can have multiple roles (Admin, Recruiter, Applicant), and each role can have different permissions.

b. Each JobPosting can have multiple Applications, indicating the candidates who have applied for the position.

c. Each Application is associated with one JobPosting and one Applicant. It represents the specific instance of a candidate applying for a particular job.

d. An Interview is linked to a specific Application, providing details about the interview process associated with a candidate's application.

Additional Considerations:

a. Customization: Allow for customization by adding custom fields to entities, supporting different data requirements for various organizations.

b. History Tracking: Implement mechanisms for tracking changes over time, such as changes to application status or modifications to candidate information.

c. Notifications: Include a notification system to alert users of important events, like new applications, interview invitations, or status changes.

d. Security: Implement proper access controls to ensure that users can only view and modify data relevant to their roles and responsibilities.

e. Scalability: Design the data model to accommodate potential growth in data volume, considering optimizations such as indexing and partitioning.