P3 - Logical ERD Model

Changes made as per the comments -

1. The relationship between JOB SEEKER and JOB POSTING through RESUME has been removed.
2. The relationship between APPLICATION and RESUME has been created to ensure that each application has only one RESUME per JOB SEEKER.

Changes made to the initial ERD -

1. In each table, we inserted primary and foreign keys that weren't depicted in the original ER Diagram.
2. In order to manage the many-to-many relationship between the JOB POSTING and SKILLS tables, we also included JOBPOSTING_SKILLS as an associative entity.
3. Roles are better explained in the logical ER diagram like EMPLOYER is a type of USER.
4. We strengthened the connection between EMPLOYER and JOB POST by adding a foreign key, **CompanyID**, to the EMPLOYER table. This allows for improved tracking and organization.
5. We added *Job_SeekerID* to the RESUME file, which ensures precise data association and builds a clear connection between resumes and job searchers.
6. We introduced *JobID* and *UserSeekerID* to the application database, which helps relationship management by making it easier to link applications to particular positions and seekers.
7. Created a new table for SKILLS to make it into 3NF.

ADDITIONAL ENTITIES

- **JobPosting Skills**

  Description: Stores skills required for job postings.

  Attributes:

  - JobPostingSkillID (PK): Unique identifier for each job posting skill.
  - JobID (FK): References the associated job posting.

- **JobSeeker skills**

    Description: Stores skills possessed by job seekers.

    Attributes:

    - JobSeekerSkillID (PK): Unique identifier for each job seeker skill.
    - JobSeekerID (FK): References the associated job seeker.

Entity Descriptions -

1. User Account

Description: Stores user login credentials.

Attributes:

- AccountID (PK): Unique identifier for each account.
- Password: Encrypted password for secure login.

2. Notification

Description: Stores notifications received by users.

Attributes:

- NotificationID (PK): Unique identifier for each notification.
- AccountID (FK): References the associated user account.
- Content: Notification message content.
- IsRead: Boolean flag indicating if the notification was read.
- Time: Timestamp when the notification was created.

3. User

Description: Stores personal information about users.

Attributes:

- UserID (PK): Unique identifier for each user.
- AccountID (FK): References the associated user account.
- FirstName: User's first name.
- LastName: User's last name.
- ContactNumber: Phone number of the user.
- Email: Email address of the user.

4. Feedback

Description: Stores feedback provided by users about the system.

Attributes:

- FeedbackID (PK): Unique identifier for each feedback entry.
- UserID (FK): References the user who provided the feedback.
- Description: Text of the feedback.
- Rating: Rating provided by the user.
- PostedDate: Date when the feedback was posted.

5. Employer

Description: Stores information about employers who post job listings.

Attributes:

- EmployerID (PK): Unique identifier for each employer.
- CompanyID (FK): References the associated company.
- PhoneNumber: Employer's contact number.
- Industry: The industry sector the employer operates in.

6. Company

Description: Stores information about companies that employ individuals.

Attributes:

- CompanyID (PK): Unique identifier for each company.
- CompanyName: Name of the company.
- Street: Street address of the company.
- State, City, Pincode: Address details.
- Email: Company contact email.
- PhoneNumber: Company contact number.
- Website: Company's official website URL.

7. Job Posting

Description: Stores details of jobs posted by employers.

Attributes:

- JobID (PK): Unique identifier for each job posting.
- EmployerID (FK): References the employer who posted the job.
- Description: Description of the job.
- JobType: Type of job (full-time, part-time, etc.).

- ○ Location: Job location.
- ○ Salary: Salary offered for the job.
- ○ PostedDate: Date the job was posted.

8. Resume

Description: Stores details of resumes uploaded by job seekers.

Attributes:

- ○ ResumeID (PK): Unique identifier for each resume.
- ○ JobSeekerID (FK): References the job seeker who uploaded the resume.
- ○ FilePath: Path to the resume file.
- ○ DateUploaded: Date when the resume was uploaded.

9. Job Seeker

Description: Stores details of users who are job seekers.

Attributes:

- ○ JobSeekerID (PK): Unique identifier for each job seeker.
- ○ UserID (FK): References the associated user account.

10. Application History

Description: Stores historical data of applications submitted by job seekers.

Attributes:

- ○ PrevApplicationID (PK): Unique identifier for each previous application.
- ○ JobSeekerID (FK): References the job seeker who applied.
- ○ Status: Status of the previous application.
- ○ Date: Date when the application status was updated.

11. Application

Description: Stores details of job applications submitted by job seekers.

Attributes:

- ○ ApplicationID (PK): Unique identifier for each application.
- ○ JobSeekerID (FK): References the job seeker who submitted the application.
- ○ JobID (FK): References the job posting being applied for.
- ○ ResumeID (FK): References the resume used in the application.

- ○ ApplicationType: Type of application (e.g., direct, referral).
- ○ Status: Current status of the application.

12. Interview

Description: Stores details of interviews conducted between job seekers and employers.

Attributes:

- ○ InterviewID (PK): Unique identifier for each interview.
- ○ JobSeekerID (FK): References the job seeker attending the interview.
- ○ EmployerID (FK): References the employer conducting the interview.
- ○ InterviewDate: Date of the interview.
- ○ Mode: Mode of the interview (online, in-person).

13. Skills

Description: Stores information about different skills.

Attributes:

- ○ SkillID (PK): Unique identifier for each skill.
- ○ SkillName: Name of the skill.

LOGICAL ERD DIAGRAM