# DATABASE DESIGN DOCUMENT

## I. ER/Class Diagram

## A diagram of a computer AI-generated content may be incorrect.

## II. Table Description

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| **User** | | | |
| **Field Name** | **Data Type** | **Constraint(Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| Id | NVARCHAR(10) | Primary Key | Unique identifier for each user. |
| UserName | NVARCHAR(256) | Not Null | The username of the user, used for login. |
| Email | NVARCHAR(256) | Not Null, Unique | User's email address, must be unique. |
| PasswordHash | TEXT | Not Null | Encrypted password of the user. |
| SecurityStamp | TEXT |  | Unique identifier for security validation. |
| PhoneNumber | NVARCHAR(20) | Not Null | User's contact phone number. |

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| **UserProfile** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| UserId | NVARCHAR(10) | Primary Key, Foreign Key (User) | Reference to the User ID. |
| AvatarUrl | NVARCHAR(255) |  | URL of the user's profile picture. |
| Bio | TEXT |  | A short biography or personal information of the user. |

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| **Role** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| Id | INT | Primary Key | Unique identifier for each role. |
| Name | NVARCHAR(256) | Not Null | Name of the role (e.g., Admin, User). |

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| **UserRole** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| UserId | NVARCHAR(10) | Primary Key, Foreign Key (User) | Reference to the User ID. |
| RoleId | INT | Primary Key, Foreign Key (Role) | Reference to the Role ID. |

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| **Vacancy** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| VacancyId | INT | Primary Key | Unique identifier for each job vacancy. |
| OwnerId | NVARCHAR(10) | Foreign Key (User) | The user who created the vacancy. |
| Title | NVARCHAR(100) | Not Null | Title of the job position. |
| Description | TEXT | Not Null | Detailed description of the job position. |
| DepartmentId | INT | Foreign Key (Department) | Reference to the related department. |
| Status | NVARCHAR(20) |  | Current status of the vacancy (e.g., Open, Closed). |
| NumberOfOpenings | INT |  | Number of available positions for this vacancy. |
| Deadline | DATETIME |  | Application deadline for the job. |
| ApplicationLimit | INT |  | Maximum number of applications allowed. |
| CreatedAt | DATETIME |  | Date and time when the vacancy was created. |
| ListOfSelectedApplicants | TEXT |  | List of selected applicants for the job. |

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| **Department** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| DepartmentId | INT | Primary Key | Unique identifier for each department. |
| Name | NVARCHAR(50) | Not Null | Name of the department (e.g., IT, HR). |

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| **Applicant** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| ApplicantId | INT | Primary Key | Unique identifier for each applicant. |
| FullName | NVARCHAR(50) | Not Null | Full name of the applicant. |
| Email | TEXT | Not Null, Unique | Applicant's email address for contact. |
| PhoneNumber | NVARCHAR(15) |  | Applicant's phone number. |
| CVFile | TEXT |  | File path or content of the applicant's CV. |
| Status | NVARCHAR(25) |  | Application status (e.g., Pending, Approved). |
| CreatedDate | DATETIME |  | Date and time when the application was submitted. |
| AttachedVacancies | TEXT |  | List of job vacancies the applicant applied for. |

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| **Interview** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| InterviewId | INT | Primary Key | Unique identifier for each interview. |
| ApplicantId | INT | Foreign Key (Applicant) | Reference to the applicant being interviewed. |
| VacancyId | INT | Foreign Key (Vacancy) | Reference to the job vacancy. |
| ScheduledDate | DATETIME |  | Date and time when the interview is scheduled. |
| StartTime | TIME |  | Start time of the interview. |
| EndTime | TIME |  | End time of the interview. |
| Status | NVARCHAR(20) |  | Current status of the interview (e.g., Scheduled, Completed). |

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| **Applicant\_Vacancy** | | | |
| **Field Name** | **Data Type** | **Constraint (Primary Key, Foreign Key, Identity, Not Null,...)** | **Description** |
| ApplicantVacancyId | INT | Primary Key | Unique identifier for each applicant-vacancy relationship. |
| ApplicantId | INT | Foreign Key (Applicant) | Reference to the applicant. |
| VacancyId | INT | Foreign Key (Vacancy) | Reference to the job vacancy. |
| Approver | INT | Foreign Key (User) | User who approved the application. |
| ApplyAt | DATETIME |  | Timestamp of when the applicant applied for the job. |