

CS 411 STAGE 3: Database Design

AI-Powered Job Recommendation and Notification System (Job-Genie)

Devansh Agarwal, Aaryan Gusain, Nakul Kuppu

Below is the Data Definition Language (DDL) commands:

CREATE TABLE User (

UserID INT PRIMARY KEY AUTO_INCREMENT,

Email VARCHAR(255) UNIQUE NOT NULL,

Name VARCHAR(255) NOT NULL,

Resume TEXT,

Preferences TEXT

);

CREATE TABLE Job (

JobID INT PRIMARY KEY AUTO_INCREMENT,

Title VARCHAR(255) NOT NULL,

Company VARCHAR(255),

Location VARCHAR(255),

Salary DECIMAL(10,2),

Description TEXT,

Source VARCHAR(255)

);

CREATE TABLE JobMatch (

MatchID INT PRIMARY KEY AUTO_INCREMENT,

UserID INT NOT NULL,

JobID INT NOT NULL,

```
MatchScore DECIMAL(5,2) NOT NULL,  
Timestamp DATETIME DEFAULT CURRENT_TIMESTAMP,  
FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE CASCADE,  
FOREIGN KEY (JobID) REFERENCES Job(JobID) ON DELETE CASCADE  
);
```

CREATE TABLE Application (

```
ApplicationID INT PRIMARY KEY AUTO_INCREMENT,  
UserID INT NOT NULL,  
JobID INT NOT NULL,  
NotificationID INT NOT NULL,  
Status VARCHAR(50) NOT NULL CHECK (Status IN ('Pending', 'Accepted', 'Rejected')),  
AppliedAt DATETIME DEFAULT CURRENT_TIMESTAMP,  
FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE CASCADE,  
FOREIGN KEY (JobID) REFERENCES Job(JobID) ON DELETE CASCADE,  
FOREIGN KEY (NotificationID) REFERENCES Notification(NotificationID) ON DELETE  
CASCADE  
);
```

CREATE TABLE Notification (

```
NotificationID INT PRIMARY KEY AUTO_INCREMENT,  
UserID INT NOT NULL,  
JobID INT NOT NULL,  
ApplicationID INT NOT NULL,  
Status VARCHAR(255) NOT NULL,  
SentAt DATETIME DEFAULT CURRENT_TIMESTAMP,  
FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE CASCADE,
```

```
FOREIGN KEY (JobID) REFERENCES Job(JobID) ON DELETE CASCADE,  
  
FOREIGN KEY (ApplicationID) REFERENCES Application(ApplicationID) ON DELETE  
CASCADE  
  
);
```

```
CREATE TABLE UserJob (
```

```
    UserID INT,  
  
    JobID INT,  
  
    PRIMARY KEY (UserID, JobID),  
  
    FOREIGN KEY (UserID) REFERENCES User(UserID) ON DELETE CASCADE,  
  
    FOREIGN KEY (JobID) REFERENCES Job(JobID) ON DELETE CASCADE  
  
);
```