1. Student’s Component

* Login
* Signup
* View profile
  + Cgpa
  + Student Details
* Dashboard
  + Courses
    - About the course
    - Weekly lectures
    - Assignment
    - ChatBot
  + Issue & Queries
  + Announcements
  + Documents
  + ChatBot

1. Ta

* Login –(Manually added)
* Profile
  + Edit profile
  + Ta details
* Dashboard
  + Manage Student
  + Upload Course Content
  + Upload Assignments
  + Answer Queries

**DataBase**

### **1️. Role Table**

* id (PK): Unique identifier for each role
* name: Name of the role (e.g., Student, Instructor, Admin)

### **2️. User Table**

* id (PK): Unique user ID
* name: User’s full name
* email: User’s email (for login)
* password\_hash: Encrypted password for security
* about: Short bio or description
* role\_id (FK): Links to **Role** table
* created\_at: Date of account creation
* last\_login: Timestamp of the last login
* **Relations:**
  + A **User** belongs to **one Role**
  + A **User** can enroll in multiple **Courses**
  + A **User** can submit multiple **Assignments**
  + A **User** can receive multiple **Announcements**

### **3️. Courses Table**

* id (PK): Unique course ID
* name: Course title
* description: Course details
* created\_at: Date when the course was added
* **Relations:**
  + A **Course** can have multiple **Announcements**
  + A **Course** can have multiple **Course Materials**
  + A **Course** can have multiple **Assignments**
  + Users can **enroll in multiple Courses**

### **4️. CourseMaterial Table**

* id (PK): Unique material ID
* week\_number: Specifies the course week
* video\_link: URL to video content
* course\_id (FK): Links to **Course**
* created\_at: Timestamp of creation
* **Relations:**
  + Each **CourseMaterial** belongs to **one Course**

### **5️. Assignments Table**

* id (PK): Unique assignment ID
* week\_number: Specifies the assignment week
* course\_id (FK): Links to **Course**
* created\_at: Timestamp of creation
* **Relations:**
  + Each **Assignment** is linked to **one Course**
  + A **User** can submit multiple **Assignments**

### **6️. Announcements Table**

* id (PK): Unique announcement ID
* details: Announcement message
* course\_id (FK): Links to **Course**
* created\_at: Timestamp of creation
* **Relations:**
  + Each **Announcement** belongs to **one Course**

### **7️. UserCourse Table (Join Table for Many-to-Many)**

* user\_id (FK): Links to **User**
* course\_id (FK): Links to **Course**
* **Purpose:**
  + A **User** can enroll in multiple **Courses**
  + A **Course** can have multiple **Users enrolled**

### **8. IssueQueries Table**

* id (PK): Unique issue ID
* details: Issue/query description
* user\_id (FK): Links to **User** (who asked the question)
* created\_at: Timestamp of issue creation
* **Relations:**
  + Each **IssueQuery** is raised by **one User**

### **9️. SolveIssue Table**

* id (PK): Unique solution ID
* answer: Solution provided
* issue\_id (FK): Links to **IssueQueries**
* solver\_id (FK): Links to **User** (who solved it)
* created\_at: Timestamp of solution creation
* **Relations:**
  + Each **SolveIssue** resolved **one IssueQuery**
  + Each solution is provided by **one User**

