Overview

Our project aims to develop a web application that leverages the power of Angular, Django, MySQL, and GitHub to create a robust and efficient software solution. The application will provide users with a seamless experience while addressing their specific needs. By combining these technologies, we strive to deliver a highly functional and user-friendly application.

Functional Requirements

1. **User Registration and Authentication**:
   Users should be able to register and create an account.
   Authentication mechanisms should be implemented to ensure secure access to the system.

2. **Teacher Management:**
   Teachers should be able to create and manage their profiles.
   They should be able to add their educational qualifications, experience, and expertise areas.

3. **School/Business Management:**
   Administrators should have the ability to manage schools or businesses within the system.
   They should be able to add, edit, and delete school/business information.

4. **Learner Management:**
   Users should be able to create learner profiles for students and professionals.
   Learner profiles should include personal information, educational background, and training preferences.

5. **Training Session Management:**
   Teachers or administrators should be able to schedule and manage training sessions.
   Sessions should include details such as date, time, location, and maximum capacity.

6. **State Extractions:**
   Users should be able to generate pre-established states with minimal parameters.
   These states should provide relevant information about schools, learners, or courses.

7. **Database Query:**
   Users should have the ability to query the database based on different parameters such as school, class, learner, or session.
   The query functionality should provide accurate and relevant results.

Non-Functional Requirements

1. **Usability:**
   The user interface should be intuitive, easy to navigate, and visually appealing.
   Users should be able to perform tasks efficiently without extensive training.

2. **Security:**
   The system should ensure the security of user data and protect against unauthorized access. Encryption mechanisms should be implemented to secure sensitive information.

3. **Performance:**
   The application should be responsive and provide quick response times.
   It should handle concurrent user requests and maintain high performance under load.

4. **Scalability:**
   The system should be designed to accommodate a growing number of users, schools, and learners. It should be scalable to handle increased data and user traffic.

5. **Multilingual Support:**
   The application should support multiple languages to cater to users from different regions. It should provide an easy mechanism for translation and localization.

6. **Maintainability:**
   The codebase should be well-organized, modular, and maintainable.
   It should be easy to update, enhance, and fix issues in the future.

7. **Compatibility:**
   The application should be compatible with popular web browsers and devices.
   It should be responsive and work seamlessly on desktop and mobile platforms.

Access Control and Security

	Student	**Teacher**	**Admin**
Add/Remove Students		X	X
Add/Remove Teachers			X
Add/Remove Schools			X
Add/Remove Courses		X	X

Add/Remove Attendance		X	X
Add/Remove Lessons		X	X
Manage Fee Accountability		X	X
Add/Remove Course Material		X	X
Create/Delete Student/Teacher Accounts			X
Add/Remove Course Grading		X	X
View Course Info	X	X	X
View Lesson Info	X	X	X
View Attendance/Grades	X	X	X
Login	X	X	X
Sign Up	X	X	X
View Student/Teacher Profile	X	X	X
Filter Students		X	X