E-Learning Platform API (Laravel & JWT)

This is a full-featured RESTful API for an E-Learning Platform built with **Laravel**. It supports multiple user roles, JWT authentication, and comprehensive course management.

🚀 Features

- **JWT Authentication:** Secure login, registration, and token management.
- **Role-Based Access Control:** Admin, Instructor, and Student roles using Laravel Policies/Gates.
- **Course Management:** Instructors can create and manage courses and lessons.
- **Student Interaction:** Course enrolment, and reviews.
- **Search & Filtering:** Advanced filtering for courses by title.
- **AJAX-ready:** Optimized for seamless frontend integration via Ajax.

⚒️ Tech Stack

- **Backend:** Laravel 12
- **Auth:** JWTToken package
- **Database:** MySQL
- **Frontend Tools:** AJAX

⚙️ Setup Instructions

Follow these steps to get the project running locally:

1. **Clone the repository:**

   Bash

   ```
   git clone https://github.com/Shakilcbpi/EdTech.git
   cd EdTech
   ```

2. **Install dependencies:**

   Bash

   ```
   composer install
   ```

3. **Environment Setup:**

   Bash

```
cp .env.example .env
```

Update the `.env` file with your Database credentials.

4. **Generate App Key:**

   Bash

   ```
   php artisan key:generate
   ```

5. **Run Migrations & Seeders:**

   Bash

   ```
   php artisan migrate --seed
   ```

6. **Start the Server:**

   Bash

   ```
   php artisan serve
   ```

🔐 JWT Setup Steps

1. **Installation:** We use `jwttoken php-jwt package`
2. **Token Refresh:** Use the `/api/auth/refresh` endpoint to get a new token before expiration.

👥 User Roles & Permissions

Role	Permissions
Admin	Full system access, manage all users and content.
Instructor	Create courses, add lessons, and manage their own content.
Student	Browse courses, enroll, and leave reviews.

📡 API Flow Overview

1. **Auth Flow:** User Registers → Login → Receives JWT Token → Includes token in `Authorization: Bearer {token}` header for protected routes.
2. **Instructor Flow:** Login → Create Course → Add Lessons → View Enrollments.
3. **Student Flow:** Login → Browse Courses (with pagination) → Enroll → View Lessons → Add Review.

Key Endpoints

Authentication

- `POST /api/register` - Create a new account
- `POST /api/login` - Get JWT token
- `POST /api/refresh-token` - Get a new token
- `POST /api/logout` - Invalidate current token

Course Management

- `GET /api/courses` - Fetch all courses (with pagination/filtering)
- `POST /api/courses` - Create a new course (Instructor only)
- `GET /api/courses/{id}` - Get detailed information of a course
- `PUT /api/courses/{id}` - Update course details (Owner only)

📖 Lesson Management

- `POST /api/courses/{courseId}/lessons` - Add a lesson to a specific course
- `GET /api/courses/{courseId}/lessons` - View all lessons of a course
- `PUT /api/lessons/{id}` - Update a specific lesson

Student & Enrollments

- `POST /api/courses/{courseId}/enroll` - Enroll in a course
- `GET /api/my-courses` - View courses enrolled by the current user
- `POST /api/courses/{courseId}/review` - Add a rating & comment to a course

Web Routes (Frontend UI)

The project also includes a simple UI for interaction:

- `/` - Login Page
- `/registration-page` - Signup Page
- `/dashboard` - Main Dashboard (Protected)
- `/course-page` - Course Management UI
- `/enrollment-page` - Student Enrollment UI

🔖 Postman Collection

You can find the Postman collection from here:

https://github.com/Shakilcbpi/edtech_postman.git