**Online Education Platform Project Report**

**Introduction**

The Online Education Platform, known as OE LEARNER, is a comprehensive cloud-based project that aims to provide students worldwide with access to high-quality education. This report provides an overview of the project, its features, technologies used, installation instructions, and other relevant information.

**Project Overview**

OE LEARNER is an Online E-Learning Platform built using a modern technology stack, including TypeScript, JavaScript, React.js, Node.js, Express.js, Docker, Clean Architecture, MongoDB, and Redis. It serves as a bridge between teachers and students, allowing teachers to upload courses and students to access and watch them.

**Features**

The key features of OE LEARNER include:

1. **Teacher and Student Registration:** Users can sign up as teachers or students to access the platform's features.
2. **Teacher Dashboard:** Teachers have a dedicated dashboard for managing courses and tracking student progress.
3. **Student Dashboard:** Students can browse available courses and watch them from their dashboard.
4. **Course Upload:** Teachers can upload and manage courses, making educational content accessible to students.
5. **Admin Panel:** An admin panel is provided for managing users, courses, and system settings.

**Technology Stack**

**Backend**

* Node.js
* Express.js
* MongoDB with Mongoose

**Frontend**

* React.js
* TypeScript
* JavaScript

**Infrastructure**

* Docker for containerization
* Redis for caching

**Architecture**

Clean Architecture principles are followed to maintain code modularity and scalability.

**Installation Instructions**

To set up OE LEARNER on your local machine, follow these steps:

1. **Prerequisites:**
   * Install Node.js: Download and install Node.js from the official website.
   * Set up MongoDB: Install MongoDB locally or use a cloud-based MongoDB service.
   * Install Docker: Download and install Docker for containerization.
   * Install Redis: Download and install Redis for caching.
2. **Clone the Repository:**

git clone https://github.com/OE Learner/ OE Learner.git

cd OE Learner

1. **Install Dependencies:**

npm install

1. **Set Environment Variables:**

Create a **.env** file in the project's root directory and configure environment variables like database connection details, API keys, and other settings.

1. **Build and Start the Application:**

npm run build

npm start

1. **Access OE LEARNER:**

Open web browser and navigate to **http://localhost:3000** to access the OE LEARNER platform.

**Conclusion**

OE LEARNER is a cutting-edge online education platform that bridges the gap between teachers and students. With a robust technology stack and modular architecture, it offers a scalable and maintainable solution. By following the installation instructions, you can set up OE LEARNER on your local environment and contribute to its growth and development. The future enhancements mentioned here can further elevate the platform's capabilities and user experience.