Learning Tracker

A modern web application designed to track educational progress and manage online courses effectively. This platform offers a seamless experience for learners and educators to interact with courses, track progress, and manage profiles in a unified system.

Features

User Authentication

Secure signup and login using JWT-based authentication.

• Course Enrollment & Tracking

Users can enroll in courses and track their completion status through video-based lessons and interactive progress logs.

Video Lesson Viewing

Integrated video players to allow users to watch lessons within the platform.

Personal Dashboard

A user-friendly dashboard that provides insights into course progress, upcoming lessons, and learning statistics.

• Profile & Settings Management

Users can manage personal details, change passwords, and customize their experience.

Tech Stack

Frontend

• React + TypeScript

For building dynamic and type-safe user interfaces.

Tailwind CSS

Utility-first CSS framework for styling.

Shadcn/ui

Beautiful and accessible UI components tailored for Tailwind and React.

Backend

Express.js + TypeScript

Lightweight and fast server framework with strong typing.

Database

SQLite

Lightweight and embedded database.

• Drizzle ORM

Type-safe ORM for interacting with SQLite.

Project Structure

/client # Frontend React application

/server # Backend Express.js application

/shared # Shared TypeScript types and validation schemas

Demo Video

Environment Variables

Create a .env file in the /server directory and define the following:

JWT_SECRET=your_jwt_secret_key

DATABASE_URL=file:./dev.db

- JWT_SECRET: A strong secret key used to sign and verify JWT tokens.
- DATABASE_URL: Path to your SQLite database file.

Future Improvements

- Admin dashboard for managing courses and users
- Gamification (badges, levels)
- Quiz and assessment modules
- Email notifications and reminders