Learnify — A Personalized Microlearning Platform for Time-Bound Learning Goals

# Abstract — Personalized Microlearning and Scheduling Web Application

Learnify is a web-based microlearning application designed to make long-term learning structured, interactive, and efficient. The system allows users to enter their learning goal (e.g., UPSC, GRE, Programming, etc.) and target duration (for example, one year). Based on this input, Learnify automatically breaks the subject into micro-topics and generates a personalized study plan with daily or weekly learning goals, reminders, and quizzes to enhance retention and motivation.

The main problem addressed is that learners often struggle to stay consistent and manage vast syllabi due to poor time management and lack of structure. Learnify solves this by dividing subjects into smaller, achievable milestones with periodic interactive quizzes, notifications, and progress tracking. The platform uses adaptive algorithms to adjust topic difficulty and reminder frequency according to user performance and schedule adherence.

Technically, Learnify follows a client–server architecture. The frontend is built using HTML, CSS, and JavaScript, offering a responsive and distraction-free UI optimized for both desktop and mobile users. The backend, powered by Python (Flask or Django), handles user registration, schedule generation, quiz management, and performance analytics. The database (SQLite or PostgreSQL) stores users, subjects, topics, quiz questions, progress logs, and reminder schedules.

Learnify also integrates email or push notifications for reminders, gamified achievements (like badges for consistency), and AI-assisted topic breakdown to simplify large subjects into digestible learning units. Security measures include user authentication, secure session management, and sanitized input handling.

**Expected outcomes:**

* Improved time management and retention through microlearning.
* Increased learner engagement via interactive quizzes and reminders.
* Scalable web architecture suitable for schools, universities, and self-learners.

The project demonstrates the power of structured microlearning, combining intelligent scheduling, gamification, and personalized analytics to make continuous learning effective and enjoyable.