






LearnCrafted





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Problem Statement



With the introduction of online education, learning has become much more flexible and easy
But with flexibility also comes many forms of distractions, so do we stop online education as a whole? Or do we continue with this mode of learning even after knowing it's flaw



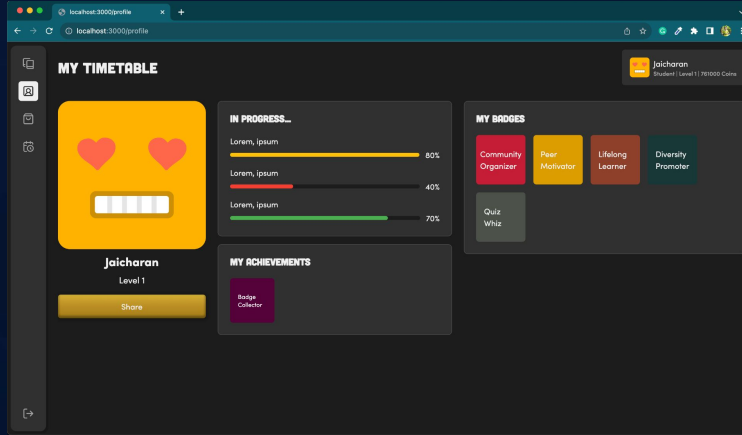


SOLUTION OVERVIEW

Technology can be a double-edged sword in educational settings, both contributing to distractions and offering solutions to enhance focus and attention spans.



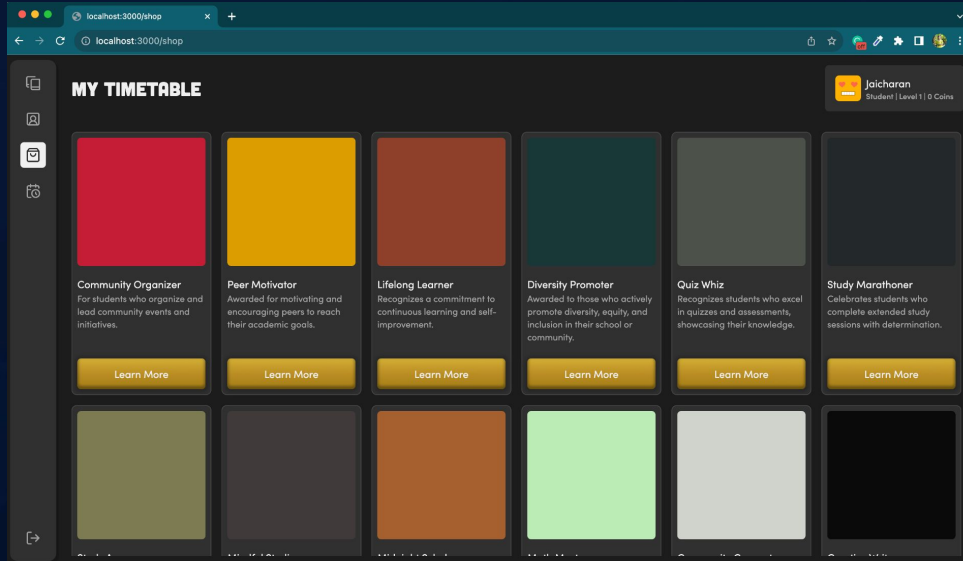
SOLUTION OVERVIEW



Gamified Learning:

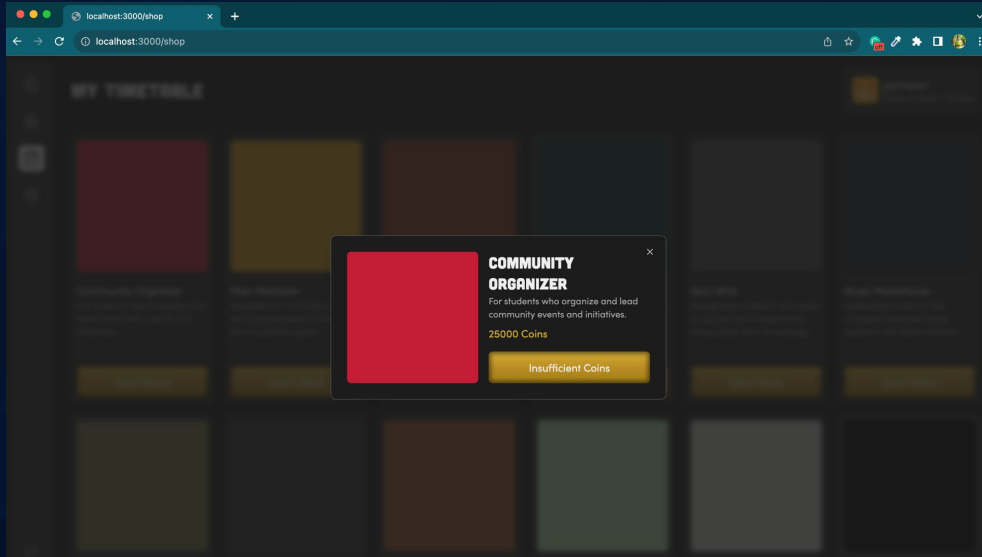
The website implements gamified and interactive elements in to learning materials. Providing rewards for excelling in quizzes, incentives for studying regularly and achieving goals increases makes learning more enjoyable and engaging.

SOLUTION OVERVIEW



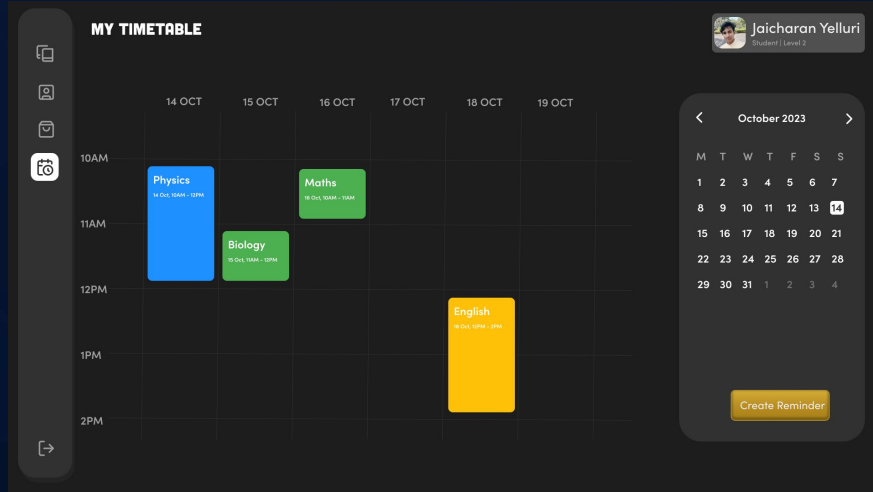
Personalized Content:
Educators can leverage available tools to effortlessly design customized courses that cater to the diverse learning preferences of their students.

SOLUTION OVERVIEW



Adaptive Learning:
Tailors content to individual student needs, pacing, and preferences, providing a personalized and engaging experience

SOLUTION OVERVIEW



Customizable timetable and alerts:
Students can create timetables and alerts which will help them stay focused.



UNIQUE VALUE PROPOSITION



Our platform revolutionizes learning by transforming technology's dual nature into an advantage. With gamified elements, personalized content, and adaptive learning, we make education engaging, tailored, and effective. Customizable timetables and alerts promote effective time management, aiding students in staying focused, while educators can effortlessly customize courses, accommodating all learning styles.





TECHNICAL DETAILS



LearnCrafted is a website, accessed through a web browser. The frontend will be built with the React Library and Next.js framework. The backend of the website will be primarily written in Python with the FastAPI framework. All data will be stored in PostgreSQL and Redis will be used as a caching layer. Almost anything a user does will trigger a backend event.





TECHNICAL DETAILS



These events can be listened to through a message queue such as RabbitMQ and particular actions can be taken. This allows features such as achievements, streaks, levels to be created. To create the reminder and timetable system, a background job runs every 30 minutes to collect all reminders that need to be sent in the next 30 minutes and schedules a job with Cron to perform them at a specific time. When a user creates reminder, we check if it needs to be executed in the next 30 minutes.





TECHNICAL DETAILS



If yes, the job is actively scheduled immediately, else it is saved to the database where it is handled by the background job. For the purposes of quick data retrieval a cache is maintained in Redis. This cache includes things like expensive statistical analysis and recommendations for a user.





FUNCTIONALITY AND FEATURES



LearnCrafted provides great learning experience through the following features:

- Powerful course creation tools: Educators can efficiently create courses that appeal to students with diverse learning styles, i.e., auditory learners, visual learners, and even learners who learn through reading and writing.
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FUNCTIONALITY AND FEATURES

LearnCrafted provides great learning experience through the following features:

- **Gamified Elements:** To provide an engaging learning experience, the website rewards students with points, virtual currency, and decorative badges for excelling in assessments, studying regularly and achieving goals set by teachers. For the academic, points can be redeemed to access advanced courses. Everyone else can show off their points, streaks, and items purchased through the virtual currency in their shareable profiles.
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FUNCTIONALITY AND FEATURES



LearnCrafted provides great learning experience through the following features:

- Mentor-Mentee System: Teachers and volunteer students mentor and help other students with their doubts.
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FUNCTIONALITY AND FEATURES


LearnCrafted provides great learning experience through the following features:

- Percentile: Students can view their percentile to gauge their learning level in the context of their classroom.
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FUNCTIONALITY AND FEATURES

LearnCrafted provides great learning experience through the following features:

- Regular Quizzes: Teachers can assess students by creating quizzes. The quizzes automatically provide feedback on which particular concepts a student is struggling with and provides remedial material.
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