Ideation Phase

Define the Problem Statements

Date: 19 July 2025

Team ID:LTVIP2025TMID33417

Project Name: Personalized Learning with Generative AI and LMS Integration

Maximum Marks: 2 Marks

Customer Problem Statement Template

A well-articulated customer problem statement allows the team to identify the real pain points from the customer’s perspective. It drives meaningful innovation and ensures that the solution aligns with user expectations.

Problem Statement (PS)

I am (Customer) I’m trying to But Because Which makes me feel

A student using online learning platforms Get personalized study materials, quizzes, and assignments that match my learning pace and style Most LMS platforms offer generic content that doesn’t adapt to my individual strengths and weaknesses Traditional LMS systems don’t use AI to generate real-time, adaptive content Unmotivated, disengaged, and anxious about falling behind

An educator managing online classes Provide personalized attention and track individual student progress effectively Managing different student needs manually is time-consuming and impractical in large classrooms There is no system that integrates AI-powered content generation with LMS analytics Overwhelmed, stressed, and concerned about student outcomes

An LMS platform administrator Improve platform engagement and ensure better learning outcomes for users Current systems lack AI-driven personalization features that can automate adaptive learning paths Manual content creation and assessments don’t scale easily for diverse learners Frustrated with low retention rates and lack of innovation

Summary of the Problem:

Current Learning Management Systems (LMS) are not equipped to deliver personalized, adaptive learning experiences. Students and educators face challenges due to generic content, lack of customization, and manual management of learning paths. Integrating Generative AI with LMS can solve these problems by automatically generating tailored study material, quizzes, and assessments based on real-time learning data, resulting in improved Here’s a Personalized Learning with Generative AI and LMS Integration: Empathy Map Canvas based on your format. You can use this as a new file for your project documentation:

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Ideation Phase: Empathize & Discover

Date

31 January 2025

Team ID

SBAP0041896

Project Name

Personalized Learning: Generative AI and LMS Integration

Maximum Marks

4 Marks

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Empathy Map Canvas

User Type:

Students, Teachers, Educational Administrators, LMS Platform Providers

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SAYS

“Every student learns at a different pace, but the system treats them the same.”

“I spend too much time searching for relevant learning materials.”

“It’s hard to track each student’s strengths and weaknesses individually.”

“I wish learning content could adapt to students’ needs automatically.”

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THINKS

“Can technology help create personalized learning experiences for my students?”

“Will this system be secure and easy to integrate with existing LMS platforms?”

“How can I reduce the workload while improving student outcomes?”

“Will students engage more if content is customized for them?”

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DOES

Uses an LMS for managing courses, assignments, and assessments.

Manually curates learning materials or uploads standard content.

Reviews student reports but struggles to offer tailored feedback.

Organizes additional sessions for struggling students but with time constraints.

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FEELS

Overwhelmed by the one-size-fits-all approach in current LMS systems.

Curious about AI-driven personalized learning but cautious about its implementation.

Concerned about student engagement and dropout rates.

Hopeful that generative AI can make learning more dynamic and interactive.

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Summary of Problem

Current Challenge:

Educational platforms often lack true personalization. Students face learning gaps due to uniform content delivery, while teachers face difficulties in addressing individual needs at scale.

Proposed Solution:

Integrating Generative AI with LMS to create a personalized learning experience where:

Content adapts dynamically to each student’s pace and performance.

Generative AI recommends or creates custom quizzes, summaries, or explanations.

Teachers receive AI-driven insights to focus on students who need help the most.