

FinTree LMS Chatbot – Intelligent Student Assistant

Overview

FinTree, a leading educational company specializing in CFA Level 1, 2, and 3, operates a Moodle-based Learning Management System (LMS). To enhance the learning experience, we are developing a custom GPT-powered chatbot seamlessly integrated into the LMS, initially focused on CFA Levels 1 and 2. This AI assistant offers personalized interaction, performance tracking, and content navigation for every individual student across multiple subscription levels. Each user receives private access, with all interactions tailored to their data and progress.

Core Functionalities



Student-Centric Design

Each CFA student has a unique learning journey. The bot is designed to personalize interactions by utilizing the following tracked data:



Content Consumption Tracking

- **Videos:** View history, timeline scrubbing, and repeat count
- **Juke Notes:** Opens and download counts
- **Class Notes:** Opens and download counts
- **EOC Summary Videos:** Access and view data
- **BlueBox Example Videos:** Access frequency
- **Crash Course:** Timeline views and repeat tracking
- **Live Classes:** Attendance by topic



Test Performance Analytics

- **Weekly Tests:** Time taken, flagged questions, attempted vs. non-attempted breakdown
- **Quizzes:** Progressive evaluation with historical tracking
- **Mock Tests:** Performance breakdown across 7 mocks (conducted 2 months before exam)



Question Source Tracing

- Students and the bot can trace:
"Where did this question come from?"
— Linking it to relevant video, note, or quiz using the integrated content referencing system.



Progress Monitoring



- Subject-wise progress & completion percentage
- Identifies weak areas
- Real-time dashboards and analytics
- Weekly manual data update support

Interface Design



Three Main Views

Switchable via sleek top-right tab navigation:

1.  **Chat** – AI-powered conversation interface
2.  **Dashboard** – Progress tracker and insights

3.  **Analytics** – Deep dive into tests, notes, and behavior




@Content Referencing System

To make interactions contextual and actionable, we've added a powerful @ content reference system:

How it Works:

1. Type @ in the chat input
2. Real-time dropdown of content appears
3. Filter by typing keywords
4. Select an item → inserts hyperlink (e.g., @[BlueBox - Derivatives Example](link))

Content Types:

-  **Videos:** Lectures, EOC, BlueBox, Crash Course
-  **Notes:** Juke Notes, Class Notes
-  **Tests:** Weekly, Quiz, Mock

Features:

- Clickable, color-coded badges
- Smart metadata filtering (subject, type)
- Icons for quick identification
- Fully interactive and embedded in chat

Smart Capabilities

Natural Language Queries

- "Show my progress" → Subject-wise breakdown
- "Test performance" → Detailed test metrics + suggestions
- "Which notes haven't I downloaded?" → Pending note downloads
- "Video status" → Watch history, completion %, repeat count
- "Where is this question from?" → Linked source material

Quick Actions

- Suggestion chips for FAQs and next steps
- One-click options to open videos, notes, or tests