Project Plan Presentation
Artificial Intelligence (AI) Training Course

The Capstone Experience

Team HAP

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MICHIGAN STATE
U N I V E R S I T Y

From Students…
…to Professionals

Project Sponsor Overview

- Health Alliance Plan (HAP) is a non-profit Michigan insurer, serves 430,000 members
- Workforce of 1100, prioritizes employee development
- Allocates 90% of premium revenue directly to healthcare services

Highest in Member Satisfaction
among Commercial Health Plans in Michigan
For J.D. Power 2023 award information, visit jdpower.com/awards

Project Functional Specifications

- Simplify AI learning with a 15-minute web-based course covering AI basics, tailored for all technical levels.

- Integrate an interactive AI avatar "professor" for engaging, personalized content delivery and Q&A sessions.

- Empower HAP staff to utilize AI for productivity enhancement and problem-solving in everyday tasks.
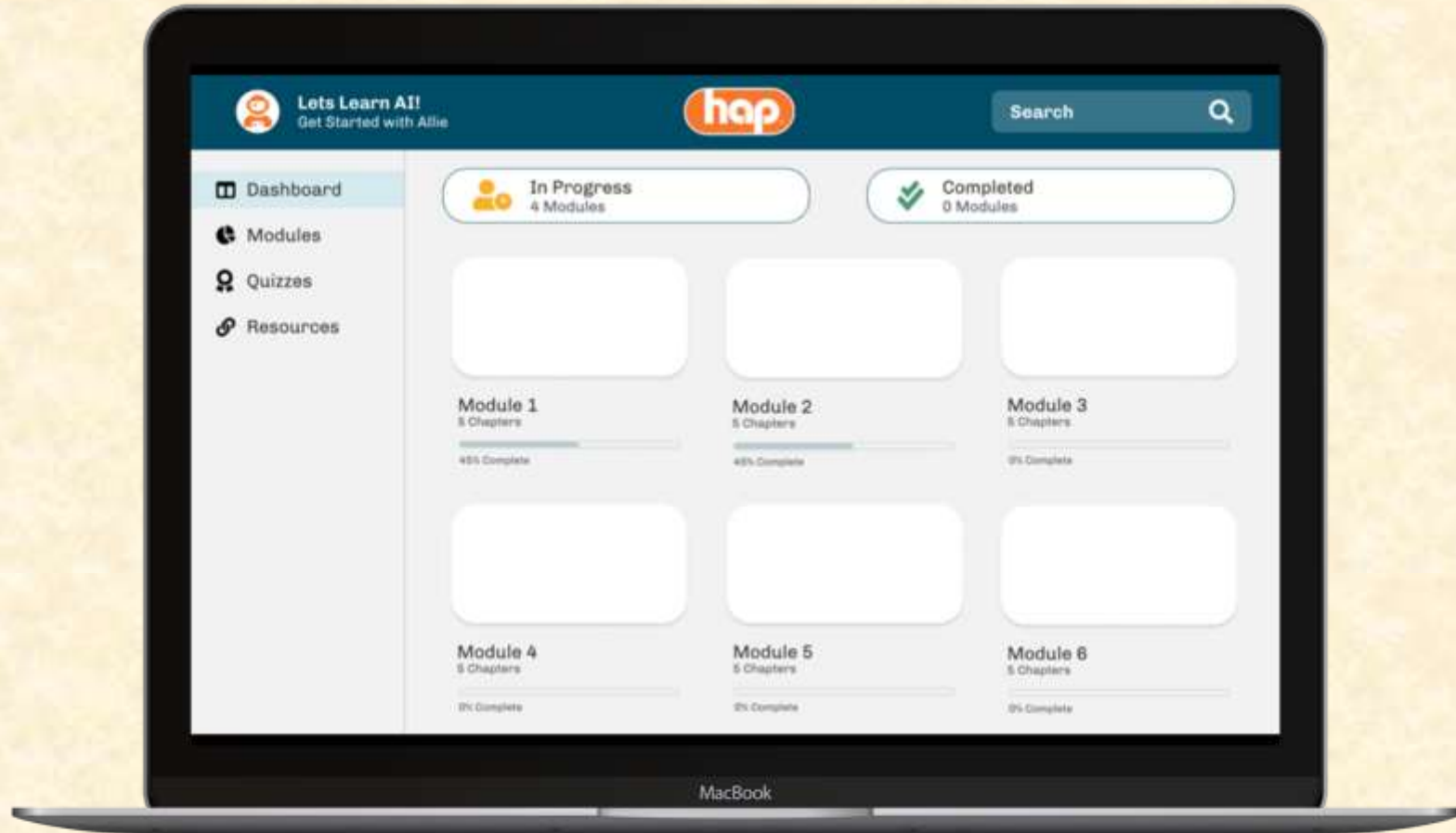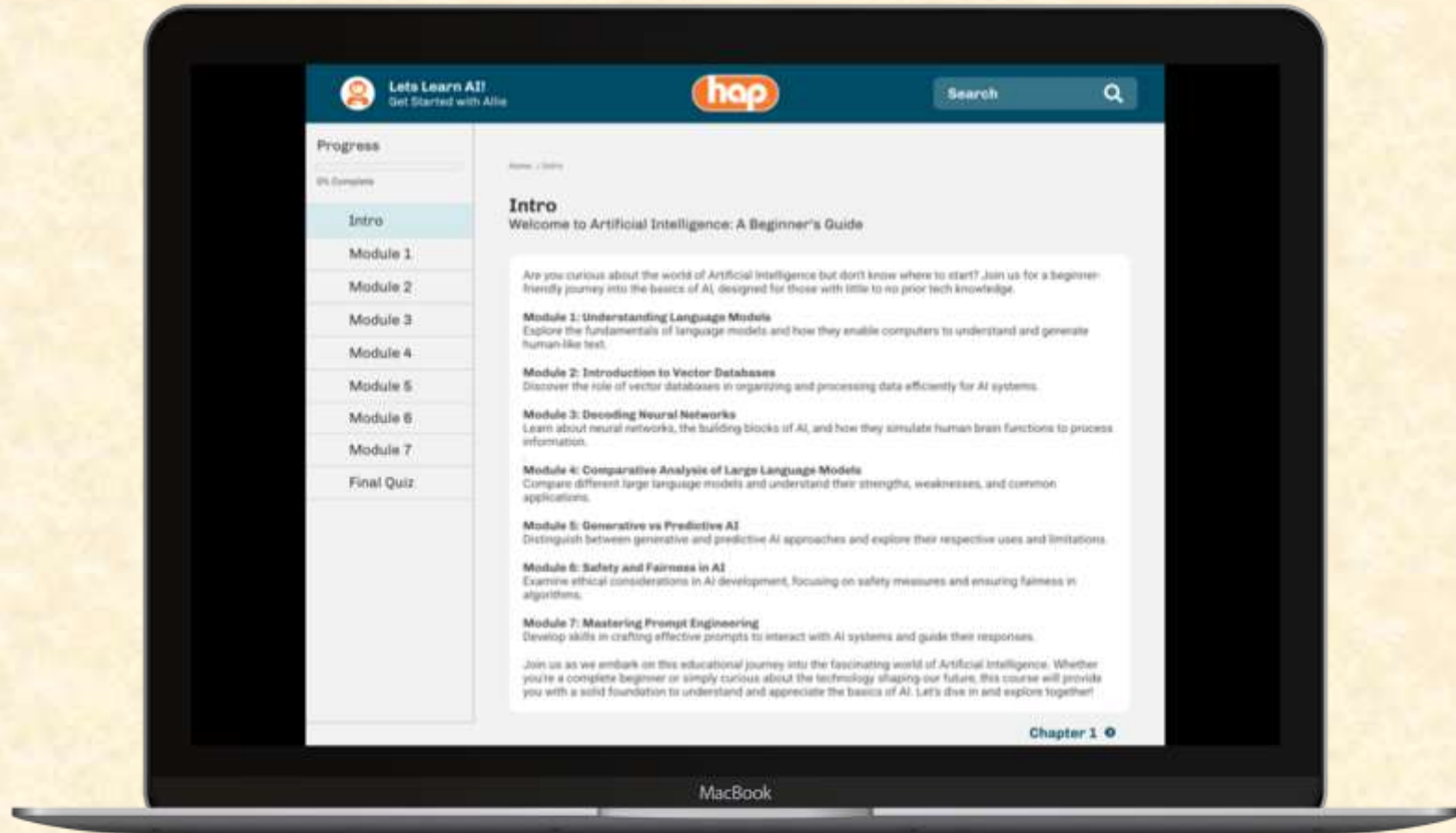
Project Design Specifications

- Seven interactive modules with quizzes and a resource hub for comprehensive AI learning.

- Progress-tracking dashboard with easy navigation to modules, quizzes, and resources.

- Engaging chapters with in-depth content, Q&A, and live chat for interactive learning.

- Integrated AI avatar for interactive text and voice chat, simulating real AI interactions.
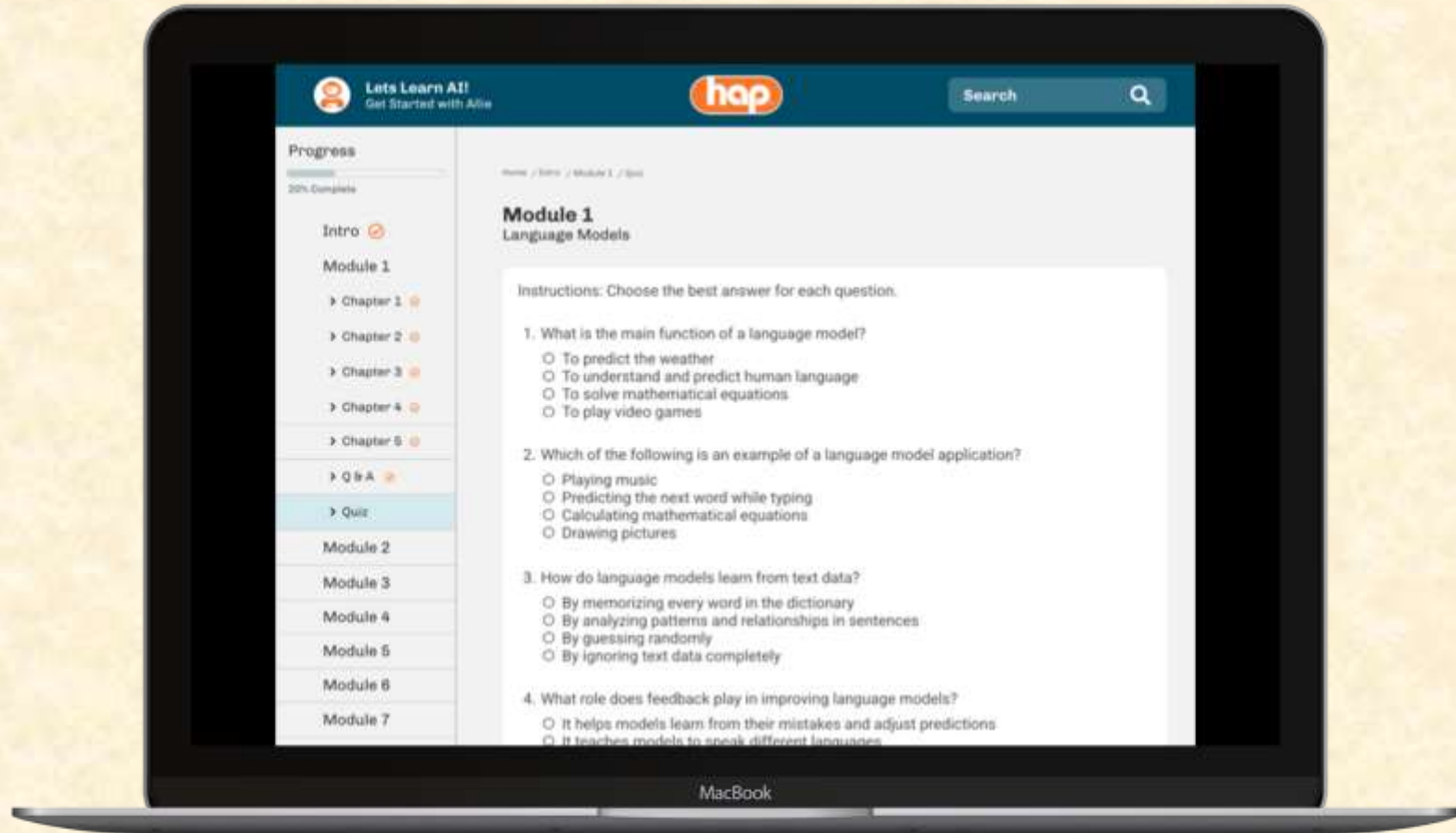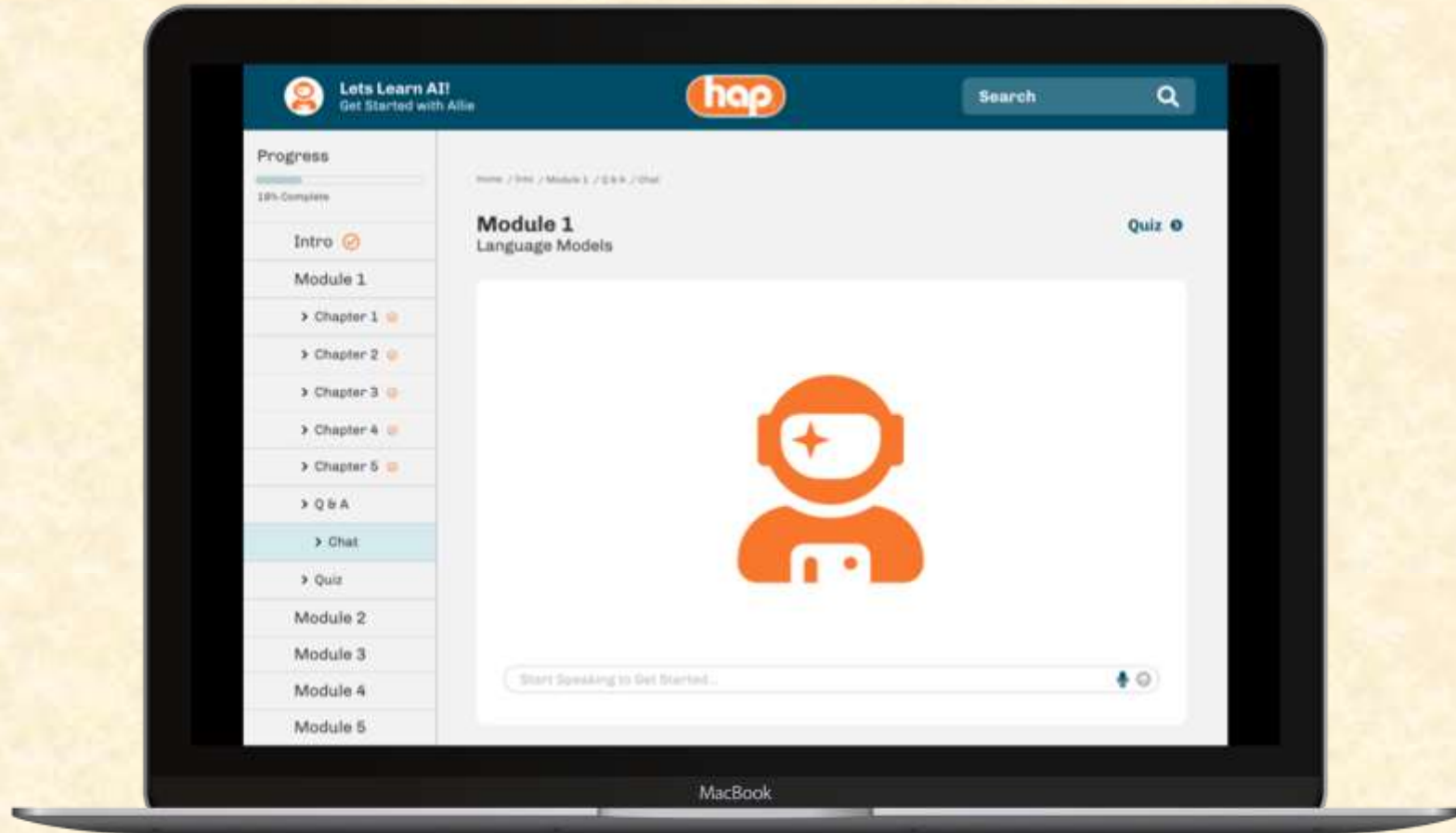
Screen Mockup: Dashboard

Screen Mockup: Module

# Screen Mockup: Quiz

Screen Mockup: Avatar

Project Technical Specifications

- Using Python and FastAPI for backend

- MongoDB for database

- Next.JS, Typescript, and shadcn/ui for frontend

- Communicating via RestAPI routes

- OpenAI for text generations and Pinecone for vectorstore memory

- D-ID for live avatar generations

- Docker to containerize and GCP to deploy

Project System Architecture
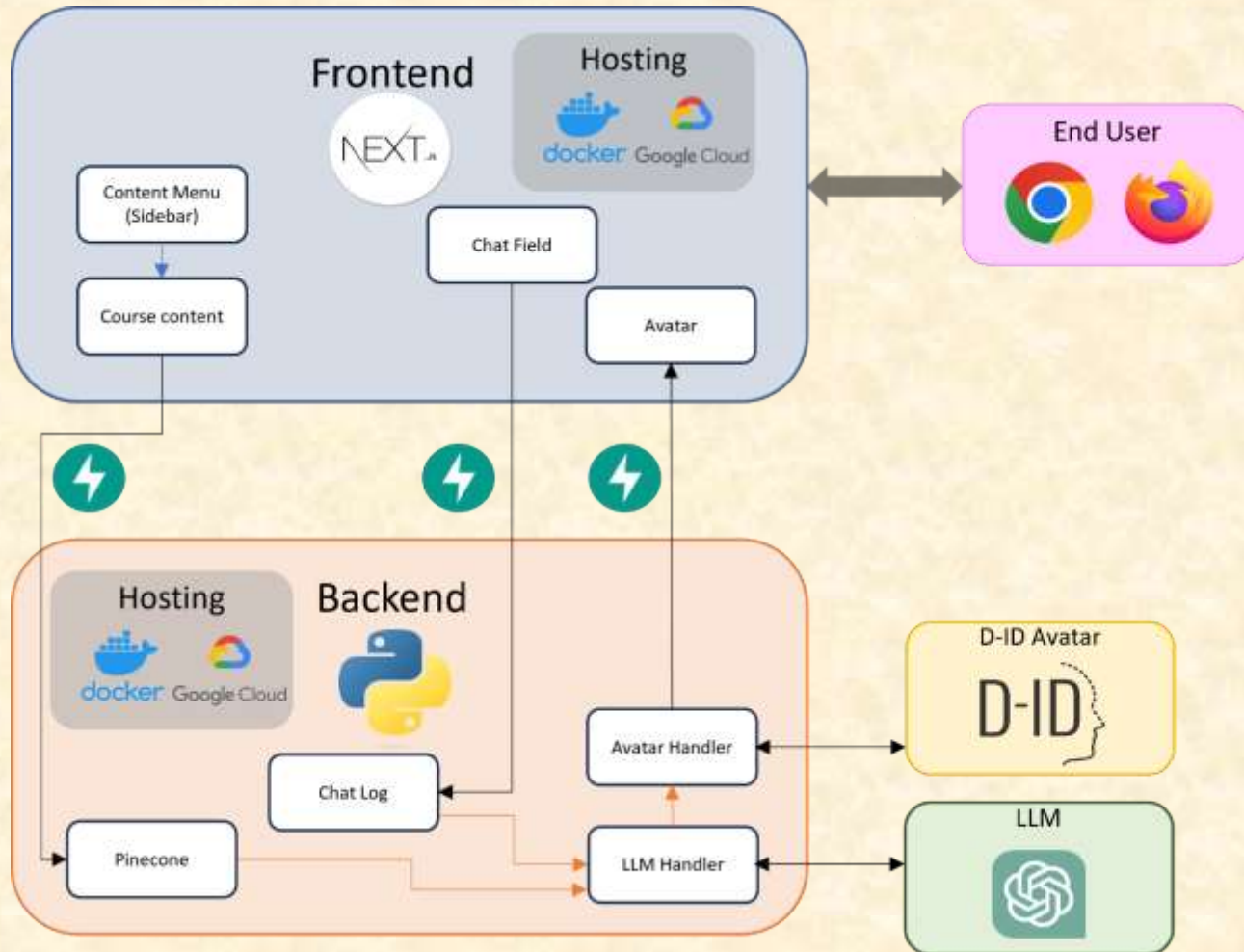
Project System Components

- Docker
- FastAPI
- Google Cloud Platform
- MongoDB
- Next.JS
- OpenAI
- Pinecone
- GitLab
- D-ID

Project Risks

- Avatar Cost
  - High costs associated with avatar services.
  - Use basic cached animations for the avatar and rely on chat responses during Q&A to manage costs.
- Technical Limitations of AI and LLMs
  - Potential inaccurate responses from AI and LLMs.
  - Regularly update and train the AI with relevant data and implement a feedback system for prompt correction of inaccuracies.
- Latency of Product
  - Potential latency affecting user experience in AI-driven interfaces.
  - Optimize the text-to-speech pipeline and cache content and avatar to reduce latency and enhance interaction.
- Content Relevance
  - Rapid AI advancements risk making course content quickly outdated.
  - Schedule regular updates and leverage AI adaptability

Questions?

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