מכון
טכנולוגי חולון
Holon Institute
of Technology

HIT

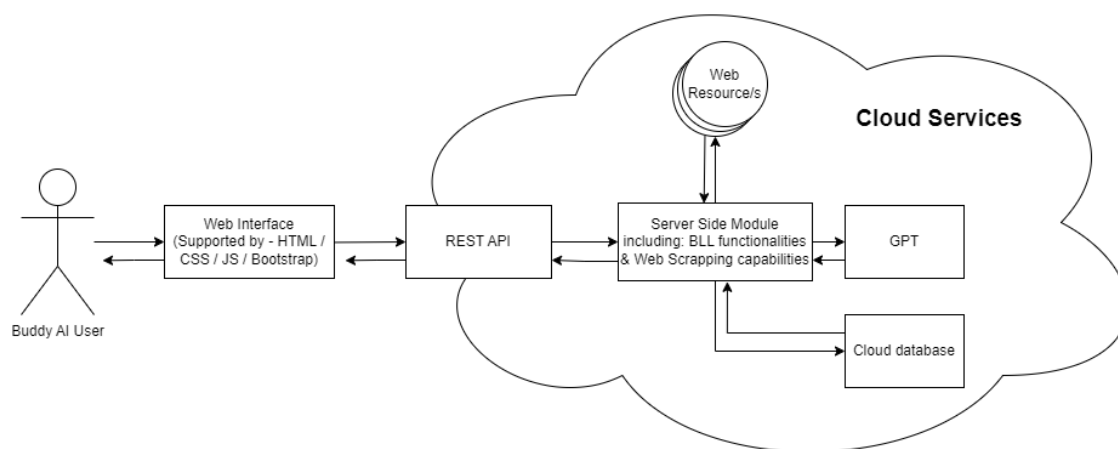More than
50 YEARS
of Academic Excellence

Buddy AI Technical Overview

Buddy-AI is a system developed by the Faculty of Instructional Technologies at HIT to provide new students with instant support during their initial steps into academia. Leveraging AI capabilities, it offers assistance based on institutional data, guiding students through their onboarding process. Buddy-AI utilizes a modern, multi-tier architecture aligned with industry standards, ensuring robust and responsive scaffolding for students needing real-time support.

The system integrates frontend and backend technologies with AI capabilities. The system's frontend utilizes HTML5, CSS3, and JavaScript with Bootstrap 5, providing a responsive interface with RTL support for Hebrew, while the backend is built on ASP.NET Core Web API and C#. The architecture comprises three main components: a web scraping service using HtmlAgilityPack that collects data from HIT's official websites, integration with OpenAI's GPT-4o-mini model for intelligent response generation with Hebrew language processing, and cloud database integration for robust data management and analytics. This architecture enables Buddy AI to deliver accurate, context-aware responses while maintaining efficient resource utilization through careful token usage monitoring and comprehensive system analytics tracking.

In conclusion, Buddy-AI exemplifies the integration of modern web technologies and AI capabilities to support the onboarding process for new students, addressing a significant and real-world challenge within the academic settings.