

## Case Study

# Optimizing Cloud & AI Strategy for CTE Program Provider

**Magic  
EdTech**

## The Client

The client is a well-known CTE program provider seeking innovative solutions to enhance their cloud infrastructure and AI capabilities.

## The Challenge

The client was looking for a strategic partner to navigate their cloud expansion needs, formulate AI-based strategy requirements, and enhance their cloud infrastructure.

## Critical Success Parameters

- ✓ Comprehensive assessment of cloud expansion needs.
- ✓ Crafting requirements for an AI-based strategy.
- ✓ Augmentation of the existing cloud infrastructure.
- ✓ Seamless integration of a versatile code editor supporting Python and Node.js.
- ✓ Effective support for programming languages and efficient code execution.

## Our Approach

- ✓ Leveraged GCP-based cloud infrastructure and Vertex AI solution for a robust foundation, ensuring scalability and advanced AI capabilities.
- ✓ Employed containerized architectures like GKE to optimize costs.
- ✓ Initiated GCP cloud setup using the Terraform tool, expediting the deployment process.
- ✓ Configured the platform with GKE, Cloud SQL, and Cloud VPN for the client's asset management application, ensuring a tailored and optimized cloud environment.
- ✓ Developed a frontend UI in ReactJS and created a Code Editor backend API in NodeJS, following a microservice architecture, enhancing modularity and flexibility.
- ✓ Containerized the solution using Docker for deployment in GKE, facilitating seamless deployment and scalability.



## Key Result Highlights

Successfully assessed and addressed the client's cloud expansion needs.

Integrated a versatile code editor supporting programming languages like Python and Node.js.

Executed cloud expansion strategies, incorporating support from LLM models for efficient code execution.

Crafted comprehensive requirements for an AI-based strategy.