Innovative Solutions for Modern Education: The Kitahub Story

The Problem

In the realm of STEM education, students often face significant challenges. One prevalent issue is the discrepancy in assignment performance, where code that functions correctly on a student's computer fails when tested on an instructor's computer. This not only impacts grades but also fails to accurately reflect a student's programming capabilities. Furthermore, traditional communication platforms used in education do not adequately support the dynamic and interactive needs of STEM related discussions, leading to delays in feedback and gaps in learning.

Additionally, the current recruitment process in the tech industry heavily relies on contrived coding challenges that do not accurately represent a candidate's real-world coding ability or problem-solving skills. This outdated model overlooks the rich insights that can be gleaned from a student’s actual coursework and interactions on educational platforms.

The Solution

Kitahub addresses these issues by offering an integrated solution that combines robust code testing with a modern discussion board, designed specifically for educational environments. Our platform ensures that students’ code is tested in a standardized environment, mirroring the instructor’s setup, thereby eliminating discrepancies in code execution. The discussion component enhances real-time communication and collaboration, fostering deeper understanding and more efficient learning.

Moreover, Kitahub innovatively extends its utility to the recruitment process. By collecting and analyzing data from actual assignments and discussions, Kitahub enables company recruiters to assess potential

candidates based on genuine academic performances and collaborative interactions. This approach allows recruiters to evaluate talent through a more authentic lens, focusing on real assignments and meaningful contributions in academic discussions rather than solely on performance in contrived coding tests. Through this, Kitahub not only enriches the educational journey but also bridges the gap between academic achievement and career advancement, making it a pivotal tool for students, educators, and recruiters alike.

Roadmap for COM:4930

Building a full featured KitaHub is an ambitious project which will take much longer than just one semester. However, we can build out some fundamental building blocks for KitaHub within the time allotted for this course. Therefore, the goal for this course is to build out a full functioning IAM System for Authentication, Authorization, and User Management. The first iteration of a data model for the platform which will include data models for a Postgres Database, Redis Pub/Sub system for near real-time Q&A collaboration, and any non-relational data like configuration and user settings. By the end of the course the goal is to have an MVP of the Q&A portion of the system and having Professor Ramesh provision a new class on the platform and having the students of COM 4930 join the class and interact on the question board.