

AcademiaSphere: Integrated University Management Platform

Team

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Description

This application aims to digitize universities by providing essential modules that seamlessly integrate administrative tasks to both maintain and scale the application. The key functionalities include course registration, grading coursework with an appropriate GPA, and maintaining an attendance record of students.

To streamline the development and deployment process, we will adopt DevOps principles, leveraging tools such as CodeCommit and CodeDeploy. Docker will be utilized to enhance scalability and facilitate efficient management of the application across diverse environments.

The implementation of automated pipelines will play a pivotal role in ensuring the swift and secure delivery of new features, bug fixes, and updates. This approach minimizes manual intervention and enhances the overall efficiency of the system. The CI/CD process will be intricately woven into the fabric of the described system, with a focus on specific features and user roles.

Features

1. User Profile:

Three types: Administrator, Professor, Student

2. Course Registration

Administrator creates Courses linked to Professor and Students can enroll

3. Course Summary

A page displaying info about specific courses offered. Provides course outline, professor info, and credit value.

4. Course Grade

Professor can enter the final grade of students for their course. A student's GPA is

calculated based on grades entered.

5. Attendance:

Proximity based attendance tracking system.

6. Transcript Generator

Downloads a .pdf file with the transcript details.

7. Course Learning Material

A repository where students can access files for any course and view them over the application itself.

8. Assignment Module

Students upload assignments and the professor grades them which extends the Course Grade module allowing for course grades to be automatically calculated from assignment grades and assignment category weights.

9. Alerts and Notification emails

Students will receive emails as and when their assignment grades are uploaded or a new assignment is up or when there is an announcement from the professor's side.

10. Dashboard:

Landing Page Interface to showcase summarized data based on the logged-in user

- a. Administrator: Total user count (active and inactive), total course count
- b. Professor: Course schedule, number of students
- c. Student: User Profile, registered courses with schedule, GPA, overall attendance