University Model Assignment Report

Completed by:

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OBJECTIVE:

The objective is to create a university model using software engineering techniques to improve the quality of education anywhere and hold people accountable for improving the quality of life through education, learning to learn, and feedback.

INTRODUCTION:

- The task is to create a performance measurement solution to enable universities to measure the quality of education being delivered to students. Quality here refers to keeping the courses fresh and aligned with industry trends.
- The education system should involve faculty, courses and employers who collectively contribute to the professional growth of graduates which includes the jobs and promotions the graduates get in due period.
- Tracking the connection of courses and their relevance to the professional growth of graduates.
- Studying the relationship between GPA and industrial success.

DELIVERABLES FOR THE ASSIGNMENT:

- Implementation of a complete system at a department and college levels which outlines the solution and implementation.
- Sequence diagram which shows how to navigate the university object model to deliver performance metrics needed for performance and feedback.

- An object model which shows the changes to the university model to support new capabilities that must include additional methods and attributes required to deliver the results.
- Investigating how digital education systems work assuming a university is an intermediary (broker) between students and employers.

PROPOSED SOLUTION:
- The department consists of the details about the courses, students, and faculty.
- Course offer consists of the list of courses offered. The course contains the name, id, credit hours, and price of the course. It also has a course rank, which acts as a performance rank for the course. It determines which course is more relevant for the students that get employed.
- The seat has the details of the total, empty and available seats. Seat Assignment checks if the seat is currently assigned or not.
- The person directory consists of the faculty and student directory.
- The common attributes between student and faculty directory are the first name, last name, email, phone number and address.
- The student directory has unique attributes like fees, degrees and courses completed. The Student Growth attribute is used as the performance attribute. It determines the academic growth of the student.
- The faculty directory has unique attributes like course name, availability, professor id, designation, qualification, course id and salary. The professor ranking and experience attributes are used as the performance attribute.
- The employment list consists of the employment details of the graduate student. The attributes are company lists, designations, salaries, working experience and promotions acquired. The professional growth attribute is used as the performance attribute.
- This model aims to achieve the basic functions of how the university system works, in terms of quality of education, revenue generated and the professional growth of graduates.