UNIVERSITY OF TEXAS AT ARLINGTON

CSE 5335-005: WEB DATA MANAGEMENT

PERFORMANCE OF MSC Academic Program (COMPUTER SCIENCE)

"GPA WIZARD"

By

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PROJECT DESCRIPTION

The "Performance of MSC Academic Program (Computer Science): GPA WIZARD" project is a comprehensive and user-friendly website that acts as a centralized platform for managing and accessing the MSC Academic Program in Computer Science. By offering tools and features for program overview, course details, performance evaluation, user communication, and administrative control, the website responds to the requirement for effective program management and assessment. In order to ensure that the program is aligned with academic goals and the changing needs of students and stakeholders in a way that is accessible and inclusive, it seeks to improve student learning experiences, streamline program operations, enable data-driven decision-making, and promote continuous improvement.

PAGE DESCRIPTIONS

Homepage:

The system is accessed through the homepage. It gives an outline of the academic program's goals. Additionally, it emphasizes the significance of performance evaluation and measurement.

Components:

- A description of the program's overall structure.
- Information on the significance of program objects (POS) and performance measurement.
- Links to the website's various parts.
- User options for logging in and signing up.

Course Description Page:

This page displays detailed information about the academic program, including its objectives and the courses offered.

Components:

- Course name and description.
- Syllabus and course resources.
- List of associated program objectives.

User Dashboard:

A customized dashboard is available for each user role (student, instructor, administrator, program coordinator, and quality assurance officer).

Components:

- Depending on the user role, but often consist of: A summary of the user's job-specific duties and obligations.
- Access to assessments, readings, and communication tools.
- A summary of the pupils' performance.
- Administrators' administrative controls.

Assessment/Examination Page:

Students can take tests or assessments to gauge their performance on this page. Exams can be managed here by instructors.

Components:

- A list of the course's current tests and evaluations.
- Information about the exam, such as its name, objectives, and length.
- Options for teachers to create and manage exams.
- Options for instructors' grading and feedback.

Report Analysis:

Reports on program performance and student progress are presented in this section.

Components:

- Graphs and charts with performance statistics.
- Performance evaluations for each student.
- Reports on a course's effectiveness.
- Program assessment insights.
- Multiple report formats for download.

Feedback and communication:

Users have the option to interact with administrators, peers, and teachers while also offering feedback on assignments and tests.

Components:

- Forums or a messaging system are the components.
- Course and exam feedback forms.
- Alerts for fresh communications or feedback.

Administration Panel:

Administrators have access to this panel, which they can use to manage user accounts, program objectives, tests, and course content.

Components:

- Tools for managing user accounts are one of the components.
- Managing program and course objectives.
- Consider your possibilities for creation and editing.
- Access to system modification options.

TECHNOLOGIES USED FOR DEVELOPMENT

- Web page's content and structure are provided via HTML.
- For improved visual appeal, CSS styles and formats the HTML text.
- JavaScript enhances the website's functionality and engagement.
- Complex user interfaces may be implemented with React, which also allows for better organization of UI state management.
- Laravel offers a framework for dealing with HTTP requests, maintaining databases, and creating server-side logic when utilized on the server.

IMPROVEMENT USING GENERATIVE AI

A generative AI chatbot implemented using JavaScript can be a transformative addition to a website, greatly enhancing the user experience. This intelligent virtual assistant engages users in real-time conversations, providing instant responses to their inquiries and assistance. This chatbot can answer user queries and provide guidance, ultimately improving user satisfaction and retention. By enhancing user engagement and interaction, the chatbot contributes to a more dynamic and immersive website. The bot can provide interactive elements like buttons, quick replies, and rich messaging with images to improve

engagement. Users communicate with the chatbot, it continues to learn and improve its responses over time. The bot can provide 24/7 instant support without needing live staffing. The chatbot can reduce repetitive tasks for human agents, freeing them to handle more complex issues.