ASSIGNMENT MANAGEMENT-WEB APPLICATION

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Abstract—This paper presents the design and implementation of an assignment management website aimed at enhancing productivity and efficiency in academic settings. The web application provides features such as assignment submission, grading, feedback, and plagiarism detection. Through this interdisciplinary project, we address the design considerations, technical challenges, and user experience aspects of developing such a system. Key components include user authentication, database management, and integration of plagiarism detection algorithms. By leveraging modern web technologies and best practices, the system aims to streamline the assignment management process for both students and instructors, ultimately improving academic outcomes.

Keywords—Assignment Management, Web Application, Plagiarism Detection, User Experience, Academic Efficiency.

I INTRODUCTION

OVERVIEW OF ASSIGNMENT MANAGEMENT WEB APPLICATION:

The assignment management web application serves as a centralized platform for managing assignments, providing real-time access to assignment details, submission, grading, and feedback processes. By leveraging web technologies, the application enhances collaboration, communication, and organization in academic environments

Assignment Dashboard: Overview of all assignments, including upcoming deadlines and status. Quick access to assignment details, instructions, and submission links Easy-to-use interface for students to submit assignments online. Support for file uploads, text submissions, and external links. Confirmation notifications upon successful submission.

Grading interface for instructors to review and evaluate student submissions. Customizable grading rubrics and assessment criteria. Ability to provide feedback, comments, and annotations directly on submissions. Integration with plagiarism detection tools to ensure academic integrity. Automated checks for similarity and originality of submissions. Notification of plagiarism issues to instructors for further review. Secure login system for students and instructors. Role-based access control to manage permissions and privileges. User Interface: Responsive design for seamless access on different devices Navigation: Intuitive menu structure for easy navigation and access to features Forms and Input Fields: Clear and accessible input fields for submission and interaction. Database Management: Storage and retrieval of assignment data and user information Server-Side Processing Handling of user requests, authentication, and data processing. Integration: Connection with external tools and services for additional functionalities Encryption: Secure transmission of data over the network using HTTPS. Authentication: User authentication mechanisms to prevent unauthorized access Data Protection: Measures to safeguard user data and maintain privacy Usability: Streamlined workflows and clear instructions for users Accessibility:

Compliance with accessibility standards for users with disabilities. Feedback Mechanisms: Options for users to provide feedback and report issues. Frontend Technologies: HTML, CSS, JavaScript: Core languages for building user interfaces. React.js, Angular, Vue.js: Frontend frameworks for dynamic and interactive web applications. Bootstrap, Material UI: UI libraries for responsive and visually appealing designs. Backend Technologies: Node.js, Django, Flask: Backend frameworks for server-side development. Express.js, Django REST Framework: Middleware for routing and handling requests. MongoDB, MySQL, PostgreSQL: Databases for storing application data. Security Technologies: JSON Web Tokens (JWT): Authentication mechanism for secure user login. HTTPS: Secure communication over the Hypertext Transfer Protocol. Encryption Algorithms: Secure transmission and storage of sensitive data. By incorporating these components and technologies, the assignment management web application aims to provide a robust, user-friendly, and secure platform for managing assignments in academic settings computer science courses after the implementation of this system. Currently developers are keen to use frameworks that can make the development much easy for them. There are two most popular frameworks where most of the developers under it. They are: PHP/LARAVEL and .NET.

II LITERATURE REVIEW

The current system takes much longer to give feedback as lecturers need to fill up the form and write down their comments and pass it to the students. The more the time takes to give feedback the less effective will become So giving feedback as early as possible is important Again written feedback sometimes hard to read for the students. The quality of the feedback depends on what are the media lecturer relying on. As for example: when the lecturer the feedback, it must meet the achievement of the students their nature and personality which will surely distinguish them from others as well [1]. Now-a-days submission has become increasingly important because of the availability of internet connections around the world. So, assessment using online has become easier compare to any previous time. Below are the chart showing how the students reacts towards the assignment submission system implementing at their university and the value of assignment feedback they usually receive from the lecturers: On the contrary, feedback system will help to evaluate the teaching quality of the university. Mostly the satisfaction level of individual students can be determining based on their feedbacks. From the feedback university, can find out the performance of the lecturers and their experiences regarding teaching [3]. To be expected inexperience lecturer score is less than experience lectures regarding the performances It shows that the overall teaching quality fully depends on the feedback of the students received the university. The advantages of this cloud infrastructure are less expensive to be implemented.

Although the level of security is completely depending on our application layers, there are some which is not much suitable for the application layer as well data layer Now-a-days web application is vulnerable to attack that gives the attackers to access the data layer of the application easily. SQL injection is a burning issue and a common fact in this case. There are many ways that usually hackers follow to hack

III PROBLEM IDENTIFICATION

The assignment management process within conference paper submission systems presents multifaceted challenges that impede the efficiency and effectiveness of the peer-review process. Manual assignment of papers to reviewers often results in delays and suboptimal matches, compromising the quality and timeliness of feedback. Ensuring appropriate reviewer expertise alignment with submitted papers remains a significant hurdle, particularly in interdisciplinary conferences where expertise assessment is complex. Additionally, managing conflicts of interest between reviewers and authors is crucial for upholding the integrity of the review process but proves arduous in conferences with high submission volumes. Timely completion of reviews is imperative for meeting submission deadlines and maintaining the conference schedule, necessitating streamlined assignment workflows. Moreover, scalability and flexibility are paramount as conferences grow, requiring systems capable of handling increasing submissions while adapting to diverse conference formats and review criteria. Addressing these challenges calls for the development of a robust assignment management solution tailored to the unique requirements of conference organizers and participants, aimed at enhancing the efficiency, fairness, and overall quality of the conference paper submission and review process.

IV SYSTEM DESIGN

Methodology

The development of an Assignment Management Website tailored for conference papers aims to streamline the review process efficiently. Through stakeholder interviews, we'll ascertain the nuanced needs and preferences of authors, reviewers, and administrators, ensuring their voices shape the platform's functionality. We'll define precise functional requirements, detailing paper submission features, reviewer competence criteria, and algorithmic matching for optimal reviewer-paper assignments. Non-functional requirements will prioritize security, scalability, and usability. Prototyping will involve iterative development of interactive prototypes, allowing stakeholders to provide feedback and refine design concepts. Agile methodologies will guide our development, prioritizing features based on user feedback and project goals. User testing will be integral, conducting usability testing and gathering feedback to refine the system's functionality and user experience. User testing will involve representative users simulating real-world scenarios to identify usability issues and refine the platform's features. Through surveys and interviews, we'll continuously assess user satisfaction and preferences, ensuring the platform evolves to meet changing needs. Secure login authentication and role assignment will be implemented to safeguard data integrity and ensure

appropriate access levels. Iterative refinement based on user input and usability testing will drive continuous improvement, creating a robust and user-centric platform for managing conference paper assignments.
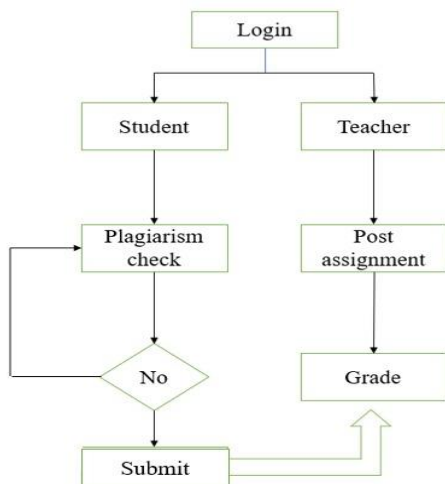

Fig-4.1: Flow Diagram of proposed system

Figure-1 provides an overview of the user interface of our website, which serves as a platform for plagiarism checking services. The interface is designed to be intuitive and user-friendly, with two main components: the login page and the plagiarism checker.

V IMPLEMENTATION

STRING MATCHING ALGORITHM FOR FINDING PLAGIARISM:

```
Algorithm StringMatcher(T, P)
    n ← length[T]
    m ← length[P]
    for i ← 0 to n - m do
        j ← 0
        while j < m and P[j] = T[i + j] do
            j ← j + 1
        if j = m then
            print "Plagiarised" i
```

Accuracy of Information Display:

Assessing the accuracy of information presented to users, ensuring correct assignment details, deadlines, and instructions are displayed.

Visibility and Clarity:

Evaluating the visibility and clarity of assignment information across various screen sizes and resolutions, ensuring readability under different viewing conditions. Latency and Responsiveness: Measuring the responsiveness of the web application to user interactions, such as submission uploads or grade changes, to ensure real-time feedback and updates.

User Interface (UI) Coverage:

Assessing the coverage of the user interface elements within the web application, ensuring all features are accessible without overwhelming the user. User Interaction and Interface Usability: Evaluating the ease of use of the web application interface, including navigation, form submissions, and feedback mechanisms, to ensure an intuitive user experience.

Reliability and Stability:

Testing the stability of the web application under heavy loads and concurrent user access, ensuring consistent performance without crashes or downtime. Security:Analyzing the security measures implemented to protect user data, preventing unauthorized access or data breaches.

Accessibility:

Ensuring the web application is accessible to users with disabilities, providing support for screen readers, keyboard navigation, and alternative text. Integration with Learning Management Systems (LMS): Assessing the integration of the web application with existing learning management systems, ensuring seamless data exchange and compatibility with course structures.

User Satisfaction and Acceptance:

Gauging user satisfaction through feedback forms and surveys to understand user preferences, identify areas for improvement, and drive iterative enhancements. By evaluating these aspects, the assignment management web application can ensure usability, reliability, and user satisfaction, ultimately improving the teaching and learning experience for students and instructors alike.
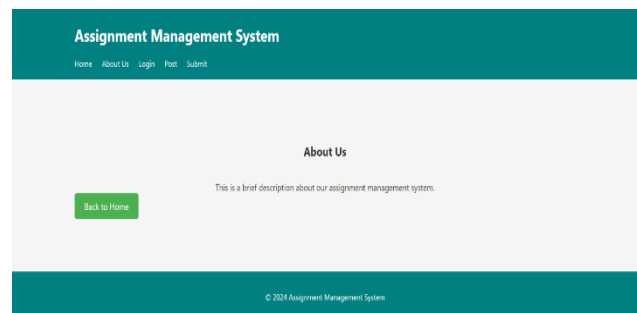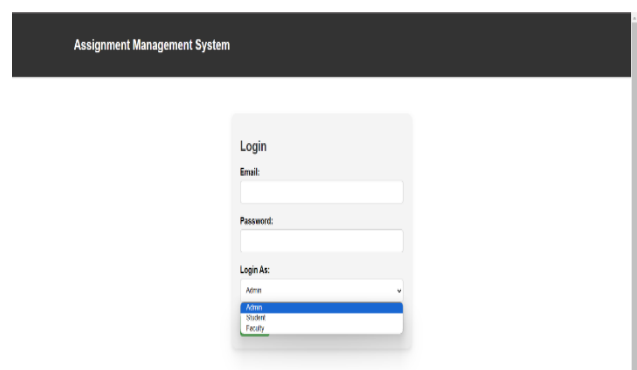
OUTPUT

Fig. 3.1 Home Page

Fig. 3. 3 Login Page

Fig. 3.4 Upload File

Fig. 3.5 Submission page

Fig. 3.6 Result

VI CONCLUSION

Augmented Reality (AR) Head-Up Displays (HUDs) hold significant transformative potential across various industries, although they also present technological, ergonomic, and ethical challenges. Continuous research and development efforts are crucial to enhance functionality and reliability, necessitating collaboration among stakeholders and regulatory bodies. It's essential to prioritize user-centered design principles, emphasizing usability, safety, and accessibility. Addressing privacy concerns and ensuring security are of utmost importance. Education programs should promote safe usage practices while fostering innovation to drive continuous improvement. Establishing standards and guidelines for responsible deployment is imperative to realize the full potential of AR HUD technology.

VII REFERENCES

[1] Naikar, N., Hopcroft, R., & Moylan, A. (2005). "Work domain analysis: Theoretical concepts and methodology." DSTO-TR-1665.

[2] Defense Science and Technology Organization, Victoria Air Operations.

[3] Smith, M. et al. (2021). "Determining the impact of augmented reality graphic spatial location and motion on driver behaviors." Applied Ergonomics.

[4] Gibson, J. J. (1979). "The ecological approach to visual perception." Houghton Mifflin.

[5]Rasmussen, J. (1983). "Skills, Rules and Knowledge: Signals, Signs and Symbolism, and Other Distinctions in Human Performance Models."

[6] IEEE Transactions on Systems, Man, and Cybernetics, 12, 257-266.

[7] Bisantz, A., & Vicente, K. (1994). "Making the abstraction hierarchy concrete." International Journal of Human-Computer Studies, 40(1), 83-117.

[8] Bolton, A., Burett, G. E., & Large, D. R. (2015). "An investigation of augmented reality presentations of landmark-based navigation using a head-up display." 7th International Conference.

[9] Smith, M., Jordan, L., Bagalkotkar, K., & Manjuluri, S. S. (2020). "Hit the brakes!: Augmented Reality head-up display impact on driver responses to unexpected events."

[10] AutomotiveUI '20: 12th International Conference on Automotive User Interfaces and Interactive Vehicular Applications.

[11] Bauerdeind, K., Druke, J., & Schneider, J. (2021). "Navigating with Augmented Reality – How does it affect drivers' mental load?" Applied Ergonomics, 94(3), 103398.

[12] Kim, S., Dey, A. K., (2009). "Simulated Augmented reality windshield display as a cognitive mapping aid for elder driver navigation."

[13] 27th International Conference Systems, CHI 2009, Boston, MA, USA.