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WEB BASED STUDENT TRAINING SYSTEM WITH SKILLSET RECOMMENDATION

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ABSTRACT - This project aims to develop a web-based student training system with skillset recommendation to address employers' concerns about the lack of skills among graduates. Many university graduates struggle to meet job requirements or lack awareness of the skills needed for their desired careers. The project's objectives are to identify requirements and techniques for an effective system and create a web application that fulfills these needs. The waterfall model is chosen for the project's development, consisting of five phases: requirement, design, implementation, testing, and maintenance. Functionality testing and User Acceptance Testing (UAT) are conducted to evaluate the system's usability and functionality. The web-based student training system successfully meets all criteria and accomplishes the project's goals of providing skillset recommendations to students. By utilizing this system, students can receive personalized skill recommendations and enhance their employability. The project's outcome contributes to closing the skills gap and helping students succeed in their careers. The web application effectively achieves its purpose and provides valuable guidance to students seeking skill development opportunities.

Keywords: Student training system, Skillset recommendation, Employers' concerns, Web application, Skills gap.

1. INTRODUCTION

In response to the need for graduate employability in an evolving labor market, this project presents a web- based training management system that aims to equip students with 21st-century skills. Employers have expressed concerns about the lack of critical thinking and communication skills among graduates, necessitating a shift in skill requirements (Yahya & Ramli, 2019). The proposed system allows students to explore career options and receive personalized skill recommendations. Through the web application, students can access information about required skills for their desired careers, bridging the gap between their qualifications and employers' needs. By developing this training management system, higher education institutions can fulfill their responsibility of producing employable graduates who contribute to long-term economic growth and labor force development.

2. METHODOLOGY

During the testing phase, functionality testing and User Acceptance Test (UAT) were conducted to assess the web application's user engagement and the effectiveness of its features. A group of students from UiTM Arau were selected as testers to evaluate the performance and usability of the web application. The testing process began with the registration process, where testers registered and created their user accounts. Each tester then spent approximately 10 to 15 minutes exploring the system and its functionalities. Following the testing, the developer conducted a questionnaire session with the testers to gather feedback on the functionality and usability of the web application. This comprehensive testing approach allowed for an evaluation of how well the system performed and how easily it could be used by the intended users.

3. RESULTS AND DISCUSSION

The collected data and feedback from the selected students revealed that most respondents expressed confidence in using the web application. This positive response indicates that the system is effective in providing personalized skill recommendations and improving students' employability. The project's outcomes are valuable in addressing the skills gap and supporting students' career success. However, it is important to note that some respondents provided suggestions for improvement and offered feedback for future enhancements of the system. These suggestions can be used to further refine and enhance the functionality and user experience of the web application. Considering this feedback will help in continuously improving the system and ensuring it meets the evolving needs of students and

employers. Overall, the project has demonstrated its effectiveness in addressing the skills gap and providing valuable guidance to students. With the incorporation of suggested improvements, the web application can continue to empower students and contribute to their long-term career development.

4. NOVELTY OF RESEARCH / PRODUCT

The novelty of the proposed web-based training management system lies in its ability to address the pressing issue of graduate employability by providing personalized skill recommendations to students. Unlike traditional approaches, this system leverages the Fourth Industrial Revolution (IR 4.0) to equip graduates with 21st-century skills required in the ever-changing workforce. By integrating functionality testing and User Acceptance Test (UAT), the system ensures its acceptability, usability, and effectiveness in engaging users. The inclusion of a diverse group of ten students from UiTM Arau as testers adds to the novelty of the system, as it incorporates real-world user feedback to enhance the application's features and usability. The positive response from the majority of respondents highlights the system's efficacy in boosting student confidence and employability. Furthermore, the system's focus on personalized skill recommendations contributes to closing the skills gap and supporting students' long-term career success. By providing students with tailored guidance on the skills needed for their desired careers, the web application empowers them to make informed decisions and bridge the gap between their qualifications and employers' requirements. Overall, the combination of IR
4.0 technologies, user testing, and personalized skill recommendations sets this web-based training management system apart, offering a novel and comprehensive solution to the challenges of graduate employability and skills development.

5. CONCLUSION

In conclusion, the proposed web-based training management system represents an innovative solution to the issue of graduate employability and skills development. With functionality testing and UAT, the system ensures effectiveness and user engagement. Positive feedback confirms personalized skill recommendations and improved employability. The outcomes address the skills gap, allowing students to explore careers, receive tailored recommendations, and acquire in-demand skills. By bridging qualifications and industry needs, the system empowers students and contributes to economic growth. Continuous refinement based on user feedback promises significant impact on career success and job market needs.

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