APPROVAL SHEET

This capstone research project entitled "**RISKWISE: A WEB-BASED HAZARD REPORTING AND MONITORING SYSTEM FOR PAMPANGA STATE UNIVERSITY"**, presented orally and submitted by**, Pabello, Ronald Kevin T. Jimenez, Christian Angelo G. Angelo, Troy Matthew A. Mallari, Andrei T. Hipolito, Rose Anne R. Cando, Paulo Kurl M.,** as partial fulfillment of the requirements for the degree of Bachelor of Science in Information Technology has been examined and hereby recommended for approval and acceptance.

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The researchers would like to express their profound gratitude to Pampanga State University for giving them the opportunity to pursue this project and for providing an environment that fosters innovation, learning, and personal growth. Developing RiskWise was not just a technical journey but also an opportunity to contribute to the improvement of campus safety, and this would not have been possible without the institution's support and commitment to quality education. The researchers extend their heartfelt appreciation to their adviser, faculty members, and mentors from the College of Computing Studies, whose guidance, encouragement, and constructive feedback shaped the direction and quality of this study. Their patience and willingness to share their expertise helped the team refine both the system and the research, creating a stronger foundation for the entire project. The lessons learned through their mentorship will remain valuable long after the completion of this capstone. Special thanks are given to the IT experts, students, faculty, and staff who participated in the evaluation of the system. Their time, insights, and honest feedback played a crucial role in assessing the usability, performance, and overall effectiveness of RiskWise. Their participation not only validated the system's technical features but also helped the team understand real user perspectives, which greatly influenced several improvements made throughout the development process. The researchers also express sincere gratitude to their families and friends, who became their constant source of strength throughout this journey. Their encouragement during stressful moments, their understanding during sleepless nights, and their faith in the team's abilities served as motivation to push forward during times of difficulty.

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DEDICATION

This study is wholeheartedly dedicated to the people who stood beside us throughout the long and challenging journey of completing this capstone project. To our beloved families, who never failed to believe in us even when we doubted ourselves thank you for the encouragement, the gentle reminders to rest, the meals left on the table during late-night coding sessions, and the emotional support that kept us grounded. Everything we achieved in this project is because you allowed us to dream and work for a better future. To our friends and classmates, who shared laughter, stress, sleepless nights, and endless brainstorming sessions, your companionship made this journey lighter. Thank you for the motivation, the shared struggles, the technical help, and the willingness to listen whenever things became overwhelming. To the students, faculty, and staff of Pampanga State University, this system is dedicated to you. Your daily experiences, commitment to the university, and genuine concern for safety inspired us to build a tool that aims to make campus life safer and more responsive. RiskWise was created with your well-being in mind. And to those who continue to inspire us to push boundaries, think innovatively, and work with purpose, this work is for you. May it remind us that even small ideas can spark meaningful change when fueled by passion, teamwork, and dedication.

ABSTRACT

This study presents the development and evaluation of RiskWise, a progressive web-based hazard reporting and monitoring system designed to support the safety operations of Pampanga State University. The system aims to improve the efficiency and accessibility of hazard reporting by enabling users to submit incidents with detailed descriptions, geolocation data, and photographic evidence. RiskWise features real-time updates, an intuitive reporting interface, an administrative dashboard for evaluation and response, and secure account authentication. This combination of features offers a practical and responsive tool for addressing safety-related challenges within the university.

A mixed-method developmental research design was utilized to develop and assess the system. Qualitative data from interviews and observations helped identify existing issues in the campus safety reporting process, while quantitative evaluation using the ISO/IEC 25010 Software Quality Model measured the system's performance from the perspective of both end-users and IT experts. A total of 389 respondents participated in the evaluation, representing students, faculty, non-teaching staff, and technical professionals.

Results revealed high acceptability across all quality attributes. Functional Suitability (3.42) and Performance Efficiency (3.45) demonstrated that the system effectively supports hazard reporting processes and responds well to user actions. Compatibility (3.41) and Portability (3.44) confirmed that RiskWise performs consistently across different devices and browsers. Usability (3.31) showed that users found the system easy to learn and navigate. Reliability (3.44) and Security (3.51)

indicated strong system stability and secure data handling, with Security receiving the highest rating, reflecting user confidence in the system's protection of sensitive information. Maintainability (3.40) showed that IT experts found the system structured well enough for updates and improvements.

These findings confirm that RiskWise is a functional, secure, and user-centered platform capable of enhancing the campus hazard reporting workflow. The study concludes that the system is ready for institutional deployment and has significant potential to strengthen safety operations, reduce response delays, and improve transparency in reporting. Recommendations for future improvements include expanding data analytics tools, integrating AI-driven hazard classification, developing a native mobile application, and exploring multi-campus adoption.

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