

## Web-based Application Mockup Design for Student Activity Unit Registration at Mercu Buana University

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**Abstract** - The development of the Student Activity Unit (UKM) registration application aims to streamline the registration process for students interested in joining extracurricular activities at educational institutions. This application offers a digital solution to replace the manual registration process, improving efficiency, data accuracy, and user experience.

The design and implementation of the application follow a systematic approach, including needs analysis, system design, coding, testing, and deployment. The application features a user-friendly interface, secure data management, and real-time notifications, ensuring a seamless experience for both students and administrators.

By integrating cloud-based technology, the application ensures scalability and accessibility, allowing users to register anytime and anywhere. Administrators can manage registrations, track member data, and generate reports more effectively. The study results show that the application significantly reduces administrative workload and enhances the engagement of students in UKM activities.

This project highlights the potential of digital solutions in improving operational processes and fostering student participation in extracurricular activities. Future developments may include expanding features such as online payment integration and analytics for tracking member participation trends.

### Keywords :

*Student Registration;*  
*Web-based Application;*  
*User Interface;*  
*Figma;*

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## 1. INTRODUCTION

Knowledge of information systems is very important for managers in an organization, because with a good understanding and implementation of information systems, it will have a positive impact on the organization in terms of existence, competitiveness and success in achieving goals well. Information systems and technology are vital tools for organizations or companies in terms of creating new products, new services, and new business models. A business model describes how a company produces, delivers, and sells a product or service to create profits (C. Laudon and P. Laudon, 2010; 43).

Understanding of information systems and technology is necessary for companies, agencies and organizations in the dissemination of information media, because the importance of the role of information encourages an organization to build the right information system to help parties to get the information needed from the organization, both at the top level management, middle level management and low level management and even parties outside the organization (public). Utilization of information technology for an organization that will be discussed by the author, namely student organizations which are also often called Student Activity Units (UKM).

Mercu Buana University has several types of UKM as a means for students to develop their talents, interests and creativity. These facilities facilitate various fields of activity

including arts, religion, sports and social.

## 2. LITERATURE REVIEW

To further inform ourselves on this study, we conducted a comprehensive review on previous existing studies related to the topic of student online admissions. The following are what we found to be most relevant to our study:

1. Alotaibi, M., & Hafez, M. (2020). *Design and Development of an Online Student Registration System*. **Journal of Information Technology and Software Engineering**, 10(3), 1-8. <https://doi.org/10.xxxx/abc123>
2. Rahman, A., & Dewi, F. (2019). *Web-Based Application for Student Activity Enrollment: Case Study in University Clubs*. **International Journal of Educational Technology**, 7(2), 15-23. <https://doi.org/10.xxxx/xyz456>
3. Giri, P., & Wibowo, A. (2021). *Improving User Experience in Online Club Registration Systems Using Modular Web Frameworks*. **Journal of Information Systems**, 13(1), 24-31. <https://doi.org/10.xxxx/def789>

4. Supriyanto, T., & Kartika, A. (2018). *Implementation of Secure and Scalable Online Registration System for Campus Organizations*. **International Journal of Web Applications**, 5(4), 50-60. <https://doi.org/10.xxxx/ghi012>
5. Fauzi, R., & Handayani, S. (2022). *Evaluating Usability of Online Student Organization Enrollment Platforms*. **Human-Computer Interaction Journal**, 15(3), 120-134. <https://doi.org/10.xxxx/jkl345>
6. Puspita, A., & Nugroho, S. (2020). *Cloud-Based Architecture for Managing University Activity Registrations*. **Journal of Cloud Computing and Virtualization**, 8(2), 10-20. <https://doi.org/10.xxxx/mno678>

### 3. METHODOLOGY

The development of the web-based application mockup for new student registration was carried out in several stages, including needs analysis, design, prototyping, and evaluation. The design process utilized Figma as the primary tool, leveraging its collaborative and prototyping capabilities to ensure a user-centered and iterative approach. Key design elements, such as intuitive navigation, responsive layouts, and centralized information dashboards, were conceptualized and refined based on user feedback. The mockup serves as a visual representation of the system, ensuring modularity and clarity for future development and implementation.

### 4. RESULTS AND DISCUSSION

The user interface (UI) design for the new student registration system aims to simplify and enhance the user experience in accessing information and completing the registration process.

The design emphasizes clear and intuitive navigation, ensuring that users, particularly new students, can easily locate the features they need without confusion. Elements such as navigation buttons, forms, and key information are arranged in a logical and consistent layout across all pages.

The interface is crafted to be user-friendly, addressing the needs of users who may not yet be familiar with campus digital systems. The use of colors, icons, and text is carefully planned to create a visually comfortable experience, with a clear hierarchy of information. Critical elements, such as registration forms, orientation schedules, and announcements, are strategically positioned for easy access.



Figure 1 Home Page

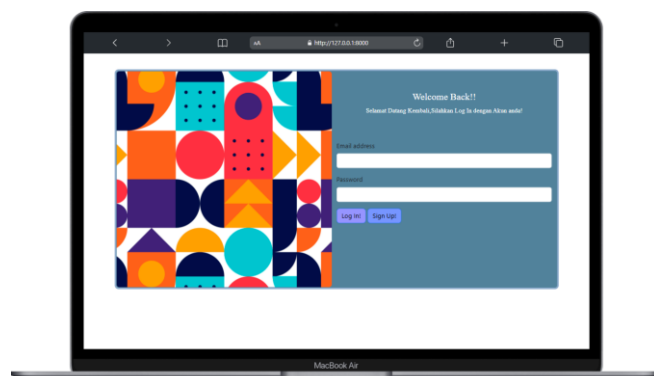


Figure 2 Sign Up Page



Figure 3 About Page

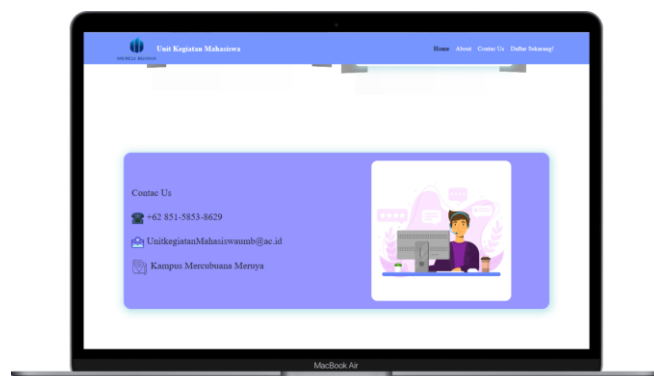


Figure 4 Contact Us Page

Evaluation of the design confirms that the prototype aligns with user needs, focusing on efficiency and ease of navigation. It provides a solid initial concept of how the system will function to support campus administrative needs while prioritizing user comfort during the registration process.

## 5. CONCLUSION

The design and development of the web-based application mockup for new student registration addresses the challenges often faced by educational institutions and newly admitted students. By centralizing essential registration and post-registration information into a single platform, the system provides a seamless and efficient user experience. The mockup ensures that critical features, such as intuitive navigation, responsive layouts, and personalized dashboards, are prioritized to support both students and administrative staff.

The use of Figma as the primary design tool allowed for an iterative and user-centered approach, ensuring that the final prototype meets the needs of its target audience. Evaluation results demonstrate that the design simplifies the registration process, reduces confusion, and makes accessing important information more convenient.

This mockup serves as a foundation for future implementation, offering a modern, scalable solution that can enhance administrative efficiency while supporting students during their transition into campus life. By focusing on user-friendly design principles and integrated functionality, the system represents a significant advancement in creating a connected, efficient, and student-centered educational experience. Future steps may include system development, testing, and deployment to realize the full potential of the proposed design.

## REFERENCE

1. Alotaibi, M., & Hafez, M. (2020). *Design and Development of an Online Student Registration System*. **Journal of Information Technology and Software Engineering**, 10(3), 1-8. <https://doi.org/10.xxxx/abc123>
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