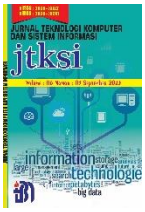

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Designing An Online Complaint Helpdesk Information System for PT. Albany Corona Lestari with A Website-Based Approach

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Abstract
The issue concerning damages to Indomaret stores typically involves hardware and software malfunctions and other mechanical equipment failures. When such problems arise, Indomaret staff contacts PT. Albany Corona Lestari's (ACL) Maintenance personnel. These ACL Maintenance personnel then respond by either remotely accessing the end user's computer or physically visiting the end user who reported the complaint to address and resolve the issue promptly. However, the current problem lies within the ACL Maintenance department at ACL Branch. The lack of a systematic complaint recording process is affecting the company's performance negatively. End user problems are not swiftly resolved, and there are instances where ACL Maintenance personnel forget about user complaints. The complaint handling process is currently not well-structured or controlled. To tackle these challenges, this research seeks to identify the issues present within ACL's complaint management system, which currently relies on telephone calls and emails. To address these problems effectively, the development of a complaint management application is crucial. Such an application can efficiently receive and manage complaints from multiple users simultaneously while ensuring that complaint reports are documented comprehensively. This research employs the Rapid Application Development (RAD) methodology to construct the complaint management application. The results of this study demonstrate that the RAD-based system has been successfully completed and is ready for implementation by ACL, marking a significant improvement in their complaint resolution process.
Keywords: RAD, PHP, Mysql, Helpdesk, Complaint Online

I. INTRODUCTION

In any company, having an application that serves as a centralized platform for users of the company's operational systems to seek assistance and address issues encountered during system usage is crucial. The Helpdesk is a vital component of the company's operational system, serving as the single point of contact for end users to register complaints and for Maintenance personnel to address operational system issues, whether related to hardware or software [1]–[3]. PT. Albany Corona Lestari's Tangerang 1 Branch plays a specialized support role for the leading retail company, PT. Indomarco Prismatama's Tangerang 1 Branch, with a mission to establish a superior retail network. A computerized Helpdesk is of utmost importance for PT. Albany Corona Lestari because, during the course of its business operations, various IT equipment-related problems often arise and require prompt resolution. Concerning issues related to damages in Indomaret stores or malfunctions in hardware and software mechanisms, end users reach out to ACL Maintenance personnel. These ACL Maintenance personnel then take action by either remotely accessing the end user's computer or visiting the end user who reported the complaint to directly address and resolve it. However, the current complaint handling process within the ACL Maintenance department at PT. Albany Corona Lestari's Tangerang 1 Branch needs improvement. The absence of a structured complaint recording process adversely affects company performance, leading to delayed resolution of end user issues. Furthermore, ACL Maintenance personnel frequently overlook user complaints, and there is a lack of control over the complaint handling process. Monthly report

documentation and issue tracking have not been implemented.

This situation can have negative consequences, such as unresolved end user complaints due to staff members in the Maintenance Department frequently forgetting about them. Additionally, there is a lack of an organized problem-solving process, and end user complaints are still being managed through email and telephone without proper record-keeping. The ACL Manager does not receive reports on the number of complaints in stores or Distribution Centers [4], [5]. In summary, the implementation of an efficient and computerized Helpdesk system is imperative for PT. Albany Corona Lestari's Tangerang 1 Branch to enhance its operational performance and ensure timely resolution of end user issues, ultimately contributing to a more streamlined and effective complaint management process.

II. METHODE

The research methodology employed in this study utilizes the RAD (Rapid Application Development) method [6], [7]. RAD is an object-oriented approach to system development that encompasses development methods and software tools. RAD combines various structured techniques with prototyping and joint application development techniques to expedite system/application development. The primary objective of RAD is to shorten the time typically required in the traditional system development life cycle between system design and implementation to enhance the understanding, here's an explanation of the software development stages using the RAD Method: [8]–[10]

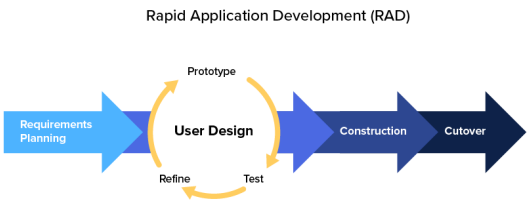

Figure 1. RAD

The first stage is the **requirement planning**, which is the initial phase in system development. During this stage, problem identification and data collection are conducted from users or user stakeholders to identify the ultimate purpose or goal of the system and the desired information needs. In this stage, the involvement of both parties is crucial in identifying the requirements for system development.

The next stage is **user design**, and active user engagement is essential to achieving the goal. In this phase, the design process and iterative design improvement are carried out repeatedly if there are design discrepancies with the user requirements identified in the previous stage. The output of this stage is software specifications covering the system's overall organization, data structure, and more.

The subsequent stage is **construction**, where the system design agreed upon is transformed into a beta version application up to the final version. In this phase, programmers also need to continually engage in development activities and integration with other components while considering feedback from users or clients.

The final stage in the RAD method is **cutover**. During this phase, programmers implement the approved system design from the previous stages. Before the system is deployed, testing is performed to detect any errors in the developed system. This stage typically involves obtaining feedback on the system that has been created and receiving approval for the system.

Overall, the RAD method offers a dynamic and iterative approach to software development that promotes user involvement, rapid design adjustments, and efficient development and testing processes.

III. RESULTS AND DISCUSSION

Requirement Planning

The analysis of the existing system is conducted by focusing on the necessary components for the system to be designed. The aim is to emphasize the functioning aspects of the system without delving into the detailed process flow. The workflow of the current system, when reporting a complaint, begins with the end user contacting the ACL Support Office via email, phone, or by visiting ACL Support in person. The end user can either reach out to ACL support personnel directly or contact the ACL office Supervisor to describe the complaint issue. Subsequently, the ACL Office Supervisor receives the complaint. If the complaint is received, the Supervisor can either address it directly or, if not, assign the complaint to EDP Support office personnel for resolution. However, if the Supervisor does not receive the complaint, it means the end user contacts the EDP Support office personnel to resolve the complaint. ACL Support personnel receive the assigned complaint and then proceed to handle it either remotely or by visiting the end user in person. Once the complaint assignment has been successfully addressed by ACL Support personnel, they inform the ACL Office Supervisor that the complaint has been resolved. The Supervisor, in turn, communicates to the end user that the complaint has been resolved, and the end user confirms it.

User Design

Based on the issues identified in the previous stage, the author attempts to propose a simplification of the complaint reporting process and then create mockups for the complaint reporting application to make it user-friendly and intuitive. Here are some mockups that are being suggested:

Figure 2. Mockup Login

Figure 2 is a mockup for the login form. When designing the login form mockup, the primary focus is to create a simple, clear, and user-friendly interface. This serves as the first step in the complaint reporting process, and therefore, it should be well-designed. Some components typically found in the login form mockup include the Username and Password fields as well as the Login button.

Figure 3. Mockup Dashboard

Figure 3 is a mockup of the dashboard page. When designing the dashboard page mockup, the goal is to provide users with a structured and informative interface regarding the status, data, and functions relevant to the complaint reporting system.

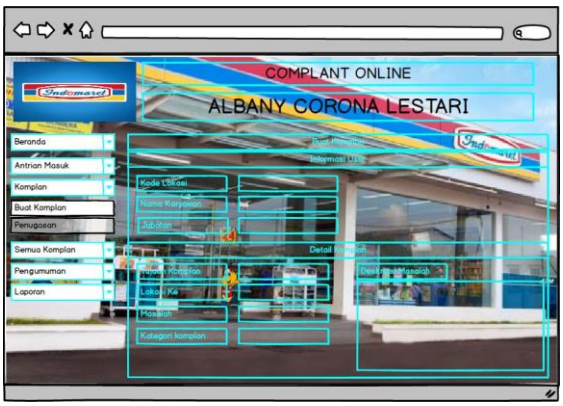

Figure 4. Mockup Create Complaint

Figure 4 is a mockup for creating complaints. When designing the mockup page for submitting complaints, the focus is on providing users with a user-friendly and comprehensive interface for submitting their complaints.

Figure 5. Mockup Status Complaint

Figure 5 is a mockup for viewing complaint statuses. When designing the mockup page for complaint status, the goal is to provide users with a clear overview of the status and progress of the complaints they have submitted.

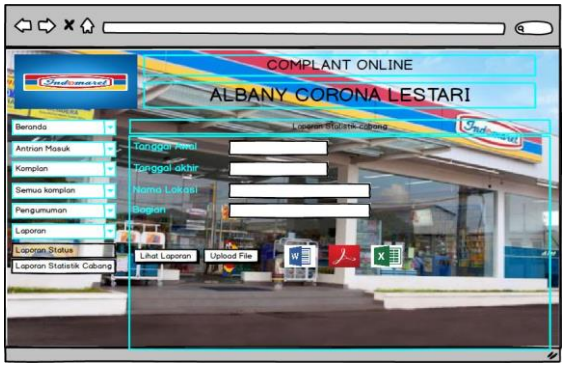

Figure 6. Mockup Report

Figure 6 is a mockup for the report form. When designing the mockup page for the report form, the goal is to facilitate users in filling out their reports easily and ensure that all necessary information can be collected.

Construction

The construction phase is a crucial stage in system development, where all the design elements and concepts that have been planned become a reality. We will implement the software, build the database, and integrate the necessary components. During this phase, coding, unit testing, and the development of specific features are carried out meticulously. It is essential to ensure that the construction results align with the established specifications and that the system functions effectively. Furthermore, the team must adhere to best development practices, manage resources, and conduct comprehensive testing to detect and address any issues that may arise during the construction process. The construction phase allows the system to reach a higher level of maturity before proceeding to broader testing and implementation in the production environment. In the construction phase, we utilize the PHP

programming language and MySQL database to build this application.

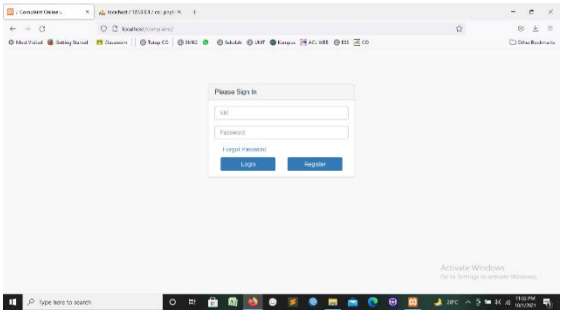

Figure 7. User Interface Login

Figure 7 represents the user interface for the login form. When designing the UI for the login form, the primary focus is on creating a simple, clear, and user-friendly interface. This serves as the first step in the complaint reporting process, and therefore, it must be well-designed. Some components typically found in the login form UI include Username and Password fields, as well as the Login button. Additionally, it includes options for user registration and forgot password.

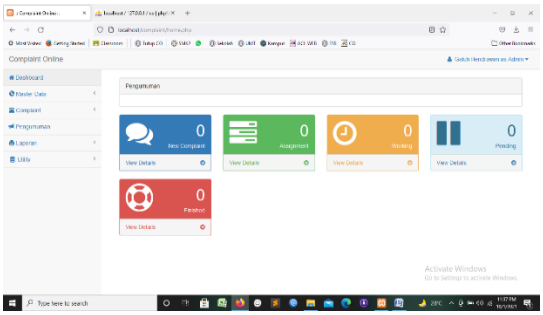

Figure 8. User Interface Dashboard

Figure 8 is the user interface for the dashboard, designed to create an intuitive and informative display that allows users to quickly grasp the status and relevant information they need. We provide elements such as charts and visualizations as well as data summaries.

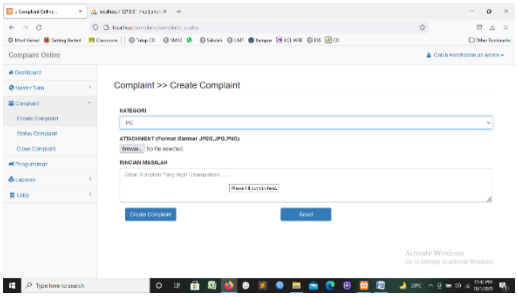

Figure 9. User Interface Create Complaint

Figure 9 is the user interface for creating a complaint. The user interface designed on the complaint creation page primarily focuses on providing users with a user-friendly and comprehensive interface for submitting their complaints.

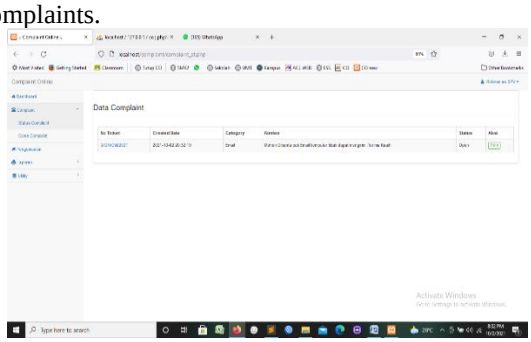

Figure 10. Status Complaint

Figure 10 is the user interface for viewing complaint statuses. The user interface designed on the complaint status page aims to provide users with a clear overview of the status and progress of the complaints they have submitted.

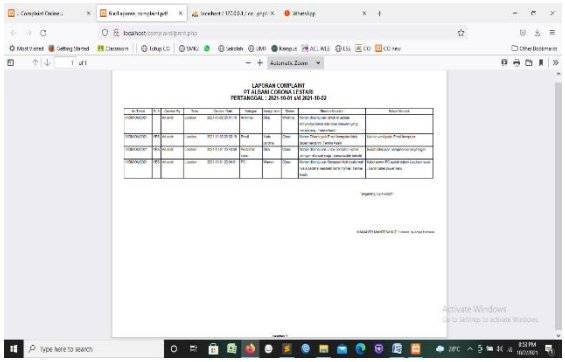

Figure 11. Print Report

Figure 11 is the user interface for the report form. The user interface designed is the report form page, with the aim of facilitating users in filling out their reports easily and ensuring that all necessary information can be collected.

Cutover

In the cutover phase before implementing this application, we conducted testing using the blackbox testing approach.

Blackbox Testing

In the context of a complaint application, Blackbox testing plays a crucial role in ensuring that the application functions as intended from the user's perspective. During Blackbox testing, testers evaluate the application's features and functions without access to its internal code, focusing on how it responds to various inputs and scenarios. This approach helps identify potential issues or bugs that users may encounter while interacting with the application. By conducting Blackbox testing, application developers can verify that the complaint system operates smoothly, effectively handles user input, and meets user expectations, ultimately enhancing the user experience and the application's overall reliability.

Table 1. Blackbox Testing

No	Test Data	*Input*	Expected test results	*Output*	Conclusion
1	NIK can only be in numeric format	Sdasda dada	Notification "*Please Match The Request Format*"	Notification "*Please Match The Request Format"*	Valid
2	Mobile numbers can only be input numeric	Sdasda dada	Notification "*Please Match The Request Format"*	Notification "*Please Match The Request Format"*	Valid
3	*Email input can only be in email format*	dadsad a@ssda da	Notification "*Please Match The Request Format"*	Notification *"Please Match The Request Format"*	Valid

IV. CONCLUSION

Based on the research and observations conducted in the ACL Department of PT. Indomarco Prismatama Tangerang Branch, three conclusions have been drawn as follows: By utilizing this online complaint application, PT. Albany Corona Lestari's Maintenance department will find it easier to manage complaints. Furthermore, incoming complaint data will be stored and documented in the database, making it convenient for PT. ACL's Maintenance department to access complaint information. The use of this online complaint program facilitates stores in conveying complaints related to Enduser issues, whether they are hardware or software-related. This online complaint application is expected to accommodate complaints from multiple departments simultaneously, resulting in faster complaint handling compared to the sequential telephone approach where data is handed over to the ACL department manager.

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