
Design and Build of an Information Sharing Application at the Palembang TV (PAL TV) Office Based on Android

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Abstract

PT Palembang TV is an electronic media company or organization whose main service is to disseminate information. Sharing activities within this company currently do not have a centralized information service. This is especially true for employees who need an integrated official information medium for job information, news, culture, rules, history, and even group discussions that have not been professionally accommodated well. This study aims to produce an application that can help PT. Palembang TV to provide convenience in sharing information among employees, so that the information transfer process is expected to be faster and clearer. This research was conducted from February to April 2020. For data collection, the authors came directly to the research location at Palembang TV, Palembang City. The software used in the research is Microsoft Office 2016, Xampp Webserver, HTML5, PHP, Framework7, and Cordova. This study uses data collection methods of observation, interviews, and documentation. The results obtained with the information sharing application at the Palembang TV office are the existence of an official medium that is mobile and capable of reaching all staff and leaders at PT. Palembang TV. This ensures that the process of communication and professional dissemination of internal information can be well-integrated and capable of increasing togetherness with structured and clear information.

Keywords

Application, Information sharing, KMS.

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Introduction

PT. Palembang TV sebagai sebuah perusahaan media elektronik memiliki peran strategis dalam penyampaian informasi kepada publik, baik berupa berita, edukasi, maupun hiburan. Namun, meskipun kegiatan operasionalnya sangat bergantung pada pengelolaan informasi, hingga saat ini perusahaan masih belum memiliki layanan informasi internal yang terpusat dan terstruktur dengan baik. Kondisi ini menimbulkan tantangan bagi karyawan yang membutuhkan media resmi untuk mengakses informasi terkait pekerjaan, berita internal, budaya perusahaan, peraturan, sejarah perusahaan, serta ruang diskusi kelompok yang belum tertampung secara profesional di lingkungan organisasi.

Ketiadaan media internal yang terintegrasi terlihat jelas dari pola koordinasi dan komunikasi yang masih mengandalkan platform tidak resmi. Interaksi antar-karyawan maupun antara karyawan dengan manajemen umumnya menggunakan media tersebar seperti email pribadi dan aplikasi pesan instan (misalnya WhatsApp). Penggunaan media yang beragam dan tidak terstandarisasi ini menyulitkan proses dokumentasi, mengaburkan alur komunikasi, serta menyulitkan perusahaan dalam menegakkan aturan, memantau kinerja, dan menentukan hak serta kewajiban setiap karyawan secara konsisten.

Dari sudut pandang manajerial, ketergantungan pada media tidak resmi juga berdampak pada lemahnya kontrol terhadap penyampaian informasi. Tidak adanya arsip terpusat menyebabkan informasi penting sering terlewat, hilang, atau tidak tersampaikan secara merata kepada seluruh karyawan. Selain itu, komunikasi informal yang tak terdokumentasi berpotensi menimbulkan kesalahpahaman, ketidaksinkronan kerja, serta berkurangnya nilai kebersamaan dalam organisasi. Sebagai perusahaan media profesional, PT. Palembang TV membutuhkan sebuah platform internal yang mampu menjadi sumber informasi terpercaya dan sarana komunikasi resmi.

Dalam era digital dan mobilitas tinggi, diperlukan sebuah medium yang bersifat mobile, mudah diakses, dan mampu menjangkau seluruh staf serta pimpinan perusahaan. Media internal semacam ini harus mampu mengintegrasikan proses komunikasi, memperkuat kebersamaan organisasi, dan mendistribusikan informasi secara cepat, jelas, dan terstruktur. Platform tersebut juga harus kompatibel dengan kebutuhan karyawan yang sehari-hari menggunakan perangkat mobile seperti smartphone, sehingga akses informasi dapat dilakukan kapan pun dan di mana pun.

Berdasarkan permasalahan tersebut, penelitian ini berfokus pada analisis dan pengembangan Aplikasi Information Sharing berbasis Android yang dirancang sebagai media resmi untuk mendukung komunikasi internal PT. Palembang TV. Aplikasi ini diharapkan dapat membantu karyawan, divisi redaksi, serta manajemen untuk memperoleh dan menyebarkan informasi secara terpusat, aman, dan profesional. Dengan adanya aplikasi ini, proses koordinasi antarbagian, penyampaian berita internal, hingga pengaturan dokumen perusahaan dapat dilakukan dengan lebih efektif dan efisien.

Dengan latar belakang kebutuhan akan media informasi terintegrasi tersebut, peneliti melakukan perancangan studi berjudul “Design and Build of an Information Sharing Application at the Palembang TV (PAL TV) Office Based on Android”. Penelitian ini diharapkan menjadi langkah awal dalam meningkatkan kualitas komunikasi dan manajemen informasi internal di lingkungan PT. Palembang TV.

Methodology

Action Research Method

This research uses the Action Research method, which is a research step that provides explanations and descriptions of a situation with the aim of improvement or development (Dasmen & Kurniawan, 2021). This method has 5 stages, as shown in Figure 1 below (Kurniati & Dasmen, 2019):



Figure 1. Action Research Method (Dasmen & Khudri, 2021)

Diagnosing

PT. Palembang TV, which operates as an electronic media serving to disseminate information, still lacks a centralized information service for its sharing activities. This primarily affects employees who require an official, integrated information medium for job information, news, culture, and rules. The system currently in use still relies on conventional media, causing employees difficulty in the process of sharing data and information within the company.

Action Planning

The plan to provide a solution to the problems faced by PT. Palembang TV is to design and build an information sharing application. The application to be developed will utilize Apache Cordova, which is a mobile website-based application intended for PT. Palembang TV employees.

Results

The study resulted in the successful development of an Android-based information sharing application for PT Palembang TV, designed to centralize communication and knowledge management within the organization. The application integrates key features such as login authentication, homepage announcements, private messaging through a mailbox, public discussions via chat groups, profile editing, file management for uploading and downloading work-related documents, and administrative functions including user registration and company-wide announcements. Black-box testing confirmed that all functions operated effectively according to specifications, ensuring reliable input-output

performance without internal code errors. As a mobile, official medium, the application improved documentation consistency, streamlined internal communication, and fostered organizational cohesion by enabling structured knowledge sharing across staff and management. Overall, the system met its objectives of enhancing professionalism and efficiency in information dissemination, with recommendations for continuous updates to maintain compatibility with evolving Android versions and for expanding features to meet broader employee needs.

Discussion

Action Taking

The following is the result and discussion regarding the design and build of the information sharing application at Pal TV, referring to the previously defined system requirements. Mobile App Login Page for Palembang TV: Registered employees can enter the Palembang TV mobile application by logging in first.

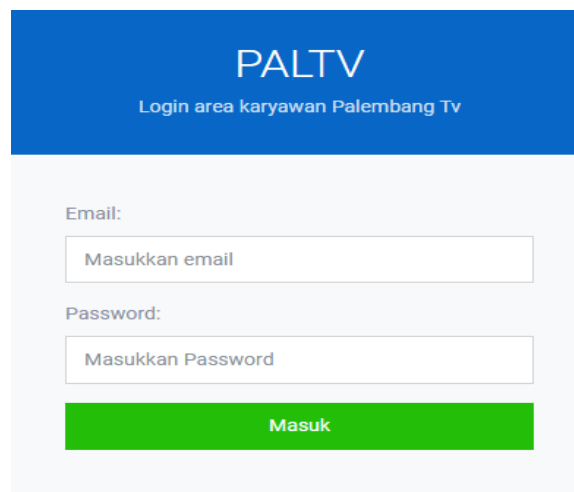


Figure 1. Mobile Application Login Page

Homepage: The homepage is used by management to convey important information to staff and employees. On this page, management conveys information that will be read by staff and employees.



Figure 2. Homepage

Pal TV Menu Page: The Pal TV Mobile App Menu Page contains the Mailbox, Chat Group, Edit Profile, and File Manager menus. On the menu page, users can press the top-left icon to select a menu.

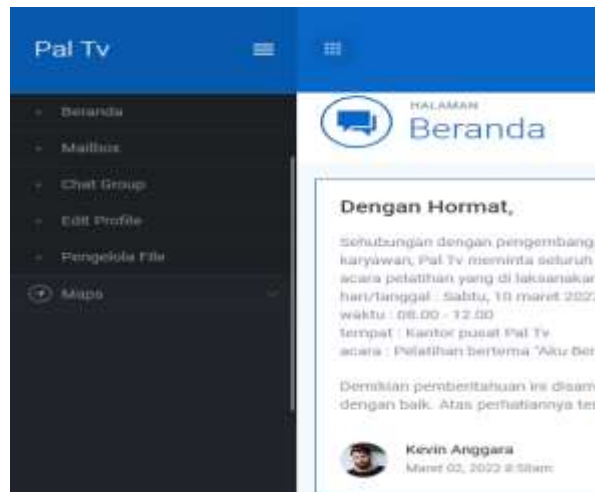


Figure 3. Pal TV Application Menu Page

Mailbox Page: The mailbox page is used to display and send messages between users. On the mailbox page, users can send and receive messages from other users.

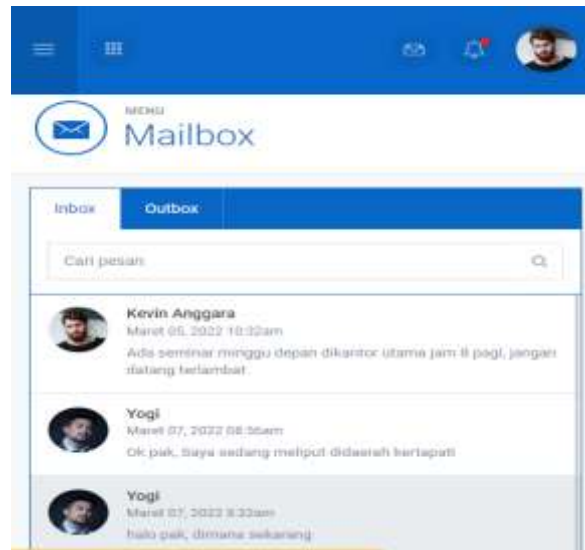


Figure 4. Mailbox Page

Chat Group Page: The chat group page is used as a general communication medium between users. On the chat group page, users can send messages and engage in public discussions.

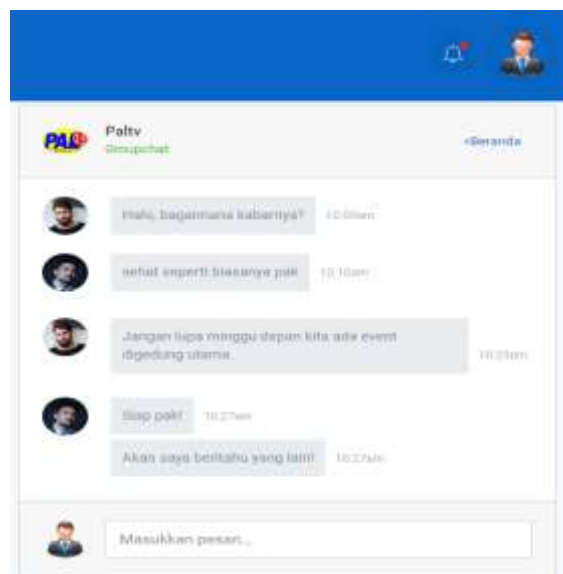


Figure 5. Chat Group Page

Edit Profile Page: The edit profile page is used by users to make data changes. On the edit profile menu page, users can change login and personal information.

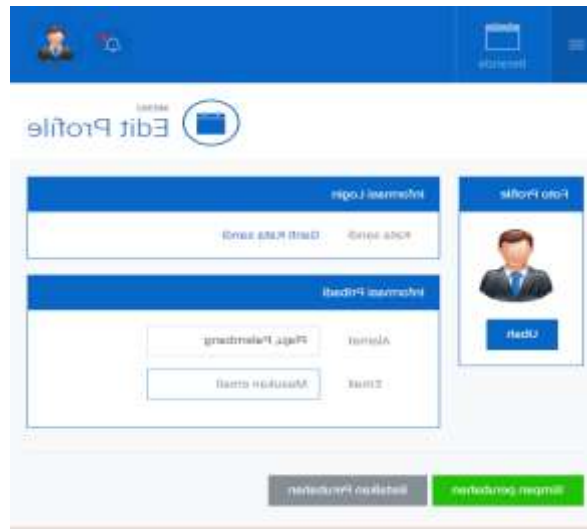


Figure 6. Edit Profile Page

File Manager Page: This page is used to upload and download files. On the file manager menu page, users can upload and download files related to work.

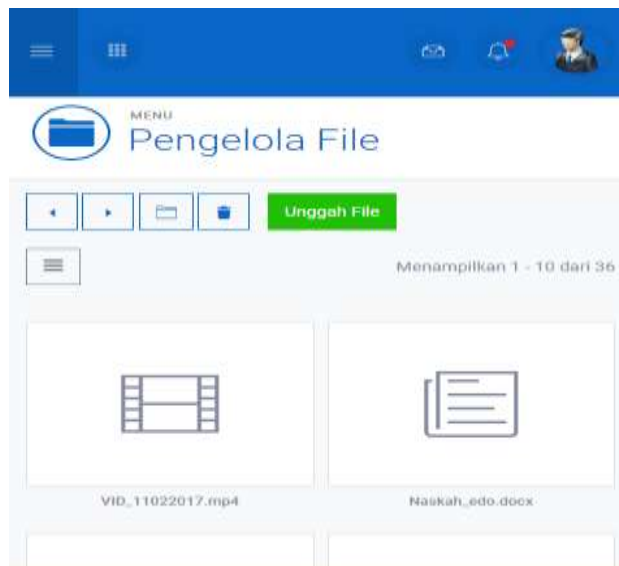


Figure 7. File Manager Page

Admin Login Page: The admin can enter the Palembang TV mobile application by logging in first. The admin login page is used for access to register users and create announcements.

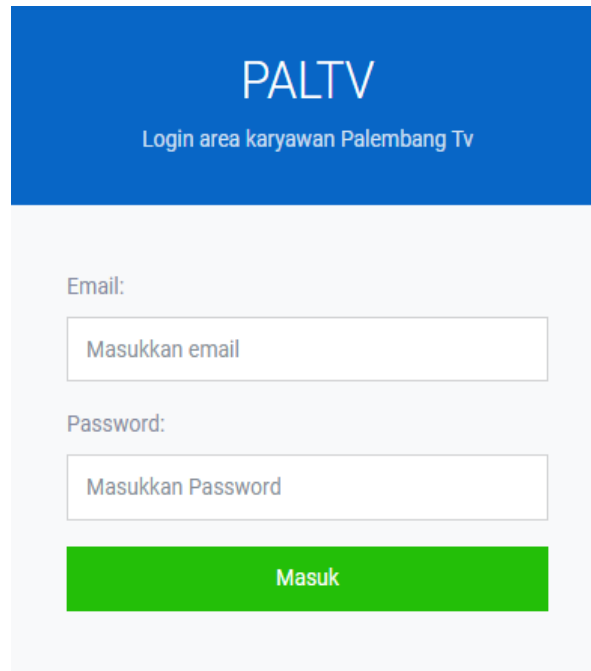


Figure 8. Notification Inbox Page

Registration Page: This page is used to add user accounts that are not yet registered. The registration page is used by the admin to register new users.

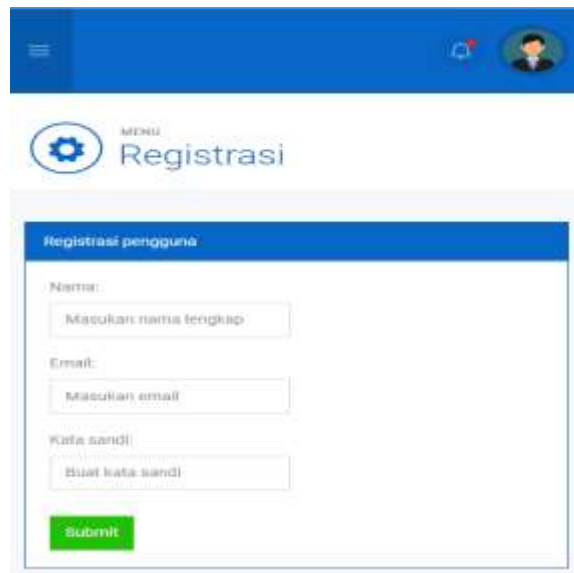


Figure 9. Registration Page

Announcement Page: The announcement page is used to create announcements. On the announcement page, users can view important information conveyed by the company.

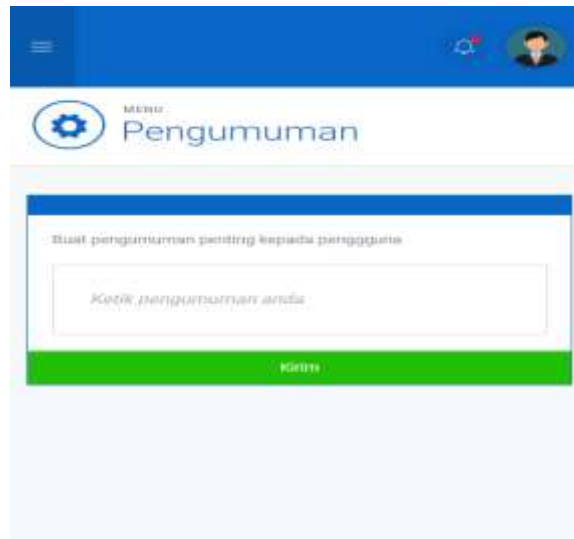


Figure 10. Announcement Page

Evaluating

This stage focuses on system installation so that it can be understood by the user. Activities in this stage include user training, maintenance, and system testing to determine whether it meets user expectations. The objective of this research is to produce a discussion and system testing conducted by the author in designing and building an information sharing application. In this regard, the testing method used by the author is the Black-box testing method, which focuses on the functional requirements of the software. According to Rosa and Salahuddin (Rosa AS and M. Shalahuddin 2015), Black-box testing examines the software from the perspective of its functional specifications without testing the design and program code. The testing is intended to determine whether the functions, inputs, and outputs of the software comply with the required specifications.

Authorization ensures that data is processed according to management regulations. Authorization concerns the transaction process in general and in specific cases. The focus of testing using Black-box is as follows:

- a. Testing the specific functions of the system.
- b. Testing the input and output for the existing functions without considering the process.

Several types of errors that can be identified are as follows:

- a. Incorrect or missing functions.

- b. Interface errors.
- c. Errors in data structure (database access).
- d. Initialization and program termination errors.

Learning

The following are the test cases used to test the built software using the Black-box method, based on Table 1, the System Requirements Plan created previously.

Table 1: User Login Page Testing

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	Login	User Inputs Email and Password Data, then Clicks the Login Menu	Displays User Main Page	[✓] Successful / Not Successful 99

Table 2: Mailbox Menu Testing

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	Mailbox Menu Page	User clicks the Mailbox menu	Displays Mailbox Page	[✓] Successful / Not Successful 101
2	Mailbox Page	User opens the message content	Displays message form	[✓] Successful / Not Successful 102
3	Message Form	Sends a message reply	Reply Sent	[✓] Successful / Not Successful 103

Table 3: Chat Group Menu Testing

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	Chat Group Menu Page	User clicks the Chat Group menu	Displays Chat Group Page	[✓] Successful / Not Successful 105
2	Chat Group Page	User opens the group message content	Displays message form	[✓] Successful / Not Successful 106
3	Message Form	Sends a message reply to	Sent	[] Successful / Not

the group chat

Successful 107

Table 4: Edit Profile Menu Testing

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	Edit Profile Menu Page	User clicks the edit profile menu	Displays Edit Profile Page	[✓] Successful / Not Successful 109
2	Edit Profile Page	User makes changes to login information and personal information	Saves data changes	[✓] Successful / Not Successful 110

Table 5: File Manager Menu Testing

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	File Manager Menu Page	User clicks the File Manager menu	Displays File Manager Page	[✓] Successful / Not Successful 112
2	File Manager Page	User presses the upload file button	Displays the file to be uploaded	[✓] Successful / Not Successful 113
3	Upload File Form	Selects the file to be uploaded	File successfully uploaded	[] Successful / Not Successful 114

Table 6: Admin Login

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	Login	Admin Inputs Email and Password Data, then Clicks the Login Menu	Displays Main Page	[✓] Successful / Not Successful 116

Table 7: User Registration Menu Testing

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	Registration Menu Page	Admin Inputs Name, Email, and Password Data, then Clicks Submit	New User Data Saved in the Database	[] Successful / Not Successful 118

Table 8: Create Announcement Menu Testing

No	Function Tested	Test Procedure	Expected Page	Successful / Not Successful
1	Announcement Menu Page	Admin clicks the Announcement menu	Displays Announcement Page	[✓] Successful / Not Successful 120
2	Announcement Page	Admin writes the announcement	Announcement successfully created	[✓] Successful / Not Successful 121

Conclusion and Recommendations

The conclusions that can be drawn from the Android-Based Information Sharing Application at the Palembang TV Office are as follows: The application facilitates users in sharing knowledge (Knowledge Sharing). By implementing the concept of Knowledge Management System (KMS) in this application, it is capable of reaching all staff and leaders at PT. Palembang TV. This ensures that the process of communication and professional dissemination of internal information can be well-integrated. The application is Android-based, making it easy to access by smartphone users. The suggestions provided for the application that has been developed are as follows: There must always be adjustments to this application to keep up with the development of the Android version, so that it can run well on every smartphone version. It is hoped that more features will be added so that this application can fully meet the overall needs of Palembang TV employees.

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