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Android-Based Mobile Application Design for Booking Meeting Room Using Decision Making Method in Pt Kereta Api Indonesia (Persero)

Gerry Firmansyah[1], Abel Mohammad[2], Hasyim.Gautama[3], Oliver Hasan Padmanegara[4]

Abstract: *Booking a meeting place is usually done by visiting the location directly or asking via telephone and it turns out that for the desired day is not available. This is very ineffective if the customer needs a meeting place in the near future and does not know any place that can be used for meetings and in accordance with the capacity of the desired person. The solution to make it easy to book a meeting place is in the form of the Meeting Room Booking application which is the research theme of this publication's text.*

This information system design method uses the SDLC (System Development Life Cycle) method in which there are requirements analysis stages, system design, system coding, system testing, and analysis.

The feature given by the user is that the user can book a meeting place based on time, the desired place and the number of meeting attendees' capacity that can be done without the user having to reserve a location directly and get information on the availability of places that can still be used for meetings.

Admins has been given admin's website dashboard that is used to monitor incoming orders. By doing this research can facilitate a number of employees who want to book a meeting place quickly when an unexpected time or from a long distance away without having to review the location of the meeting. They can immediately determine the place as desired and determine the accommodating room with the number of meeting participants.

Keywords: *Android, Meeting, Reservasi, SDLC, DSS, SPK.*

I. INTRODUCTION

As the company's business growth, PT Kereta Api Indonesia, especially the Cirebon 3 Operational Area,

[1] (gerry@esaunggul.ac.id)

(abel.mohammad@esaunggul.ac.id)

(hasyim.gautama@esaunggul.ac.id)

Universitas Esa Unggul[1,2,3] Widyatama University[4]

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needs the support of office infrastructure to help the organization's activities. One of them is the management of meeting rooms. At present information on the availability of meeting rooms and reservations is done manually by contacting the secretary of the deputy or admin of the HR and General unit where the employee works and recording them manually in a map containing a table booking list of meeting rooms along with the time and number of meeting participants. This process is very ineffective, because checking and confirmation requires a relatively longer time. With a limited number of meeting rooms and the high level of need for meeting rooms, meeting room management requires good application support. During this time there is an application in the form of an internal web which was once made by the IT team but did not last long because the interface is too complicated and complicated business processes plus there is also no photo layout meeting room to be used. Be the user again using the manual system in reserving a meeting room.

The meeting room booking service application is intended to help more efficiently manage meeting rooms. Through this application, information on the availability of meeting rooms is easily known by all employees, online and in real time. Room reservations can be made more easily without having to make a time-consuming process. On the other hand, the manager or administrator will find it easier to monitor and prepare the completeness of the meeting room, because there are various facilities that are prepared in the system, such as search, reporting and so on.

The application will be created using the concept of decision making method or commonly called the Decision Support System. Where by using additional DSS concepts this application will easily provide the best recommendations for users who feel they want to quickly and efficiently get info for booking meeting rooms that they want to use. With the addition of 360-degree camera technology features that provide an additional real impression on images and video situations and circumstances around the meeting room at PT Kereta Api Indonesia Daop 3 Cirebon.

Android as an open-source operating system is the most popular and most developed operating system today. Android-based smart

phones are very easy to modify or create new applications according to the user's wishes. Based on the facts that exist today, smartphone users also naturally want to get a sense of security for the smartphone they have.

The camera 360 feature will be inserted by the author in an additional menu for each venue choice in the meeting room and venue booking application so that the writer raises the title of Final Project "ANDROID-Based Mobile Application For Booking Meeting Rooms With The Decision Making Method In Pt Kereta Api Indonesia (Persero)".

This system is expected to be more helpful in the smooth work of the employees at PT Kereta Api Indonesia Regional Operations 3 Cirebon.

Based on the background described above, the problem identification for the preparation of this final project is as follows:

1. Information on the availability of meeting rooms is difficult to obtain and not real time.

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2. Information on the availability of meeting rooms is difficult to obtain and not real time.

3. The existence of existing applications that are not used due to using classic methods and less helpful to employees.

4. Lack of information appears in the existing meeting room layout.

Then the scope of research in related matters as follows:

1. The design of this application is only for Android-based devices and Website links.

2. This application provides information about the availability of meeting rooms on the desired day and time and is supported by a decision-making method to facilitate the user.

3. Software used by the authors in the design and manufacture of this application are:

- Eclipse and Android SDK
- Xampp Control Panel
- Android Studio
- Apache
- User

4. Train employees who want to access information and book conference rooms via mobile phones that support the Android application..

The objectives of this final project are as follows:

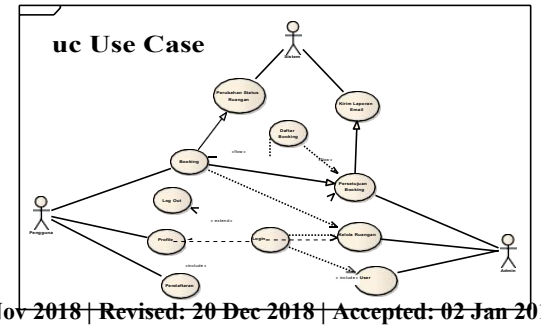
1. Building a meeting room booking application that can facilitate information from meeting rooms and facilitate booking of meeting rooms by employees more effectively and efficiently.

2. Replacing the manual system in booking the meeting room that is now running and also the existing application which will be replaced with the booking system through an application on a smartphone.

3. Provide a decision-making method in the application that can facilitate employees in determining the meeting room that they want to use.

4. Providing information on the availability of meeting rooms faster and coupled with layout information in each meeting room.

Proposed Business Process



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Picture 1 Proposed Business Process

The following explanation of Figure 1:

1. User Actor, register to log into the system, users can also make changes to profile data. As the core of this application is the user can make the booking process of meeting rooms that you want to use on the day and with the number of people who have been determined.

2. Admin Actors, are also required to login to be able to enter the system, the admin is also tasked with managing user management which can determine the previllage of each user. Admin can also manage meeting rooms. And helps the forwarding process from booking confirmation to booking approval and proceed to the booking data verification email that the user has done to the user's email.

3. Actor System, where these actors only work behind the scenes of the application. In this application the system is only tasked to make changes to the room status that has

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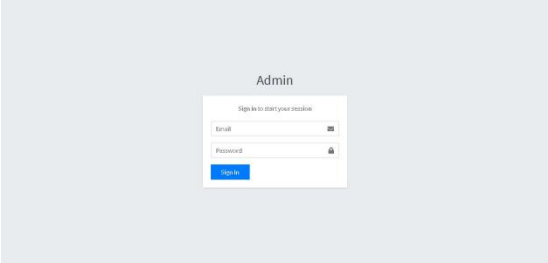
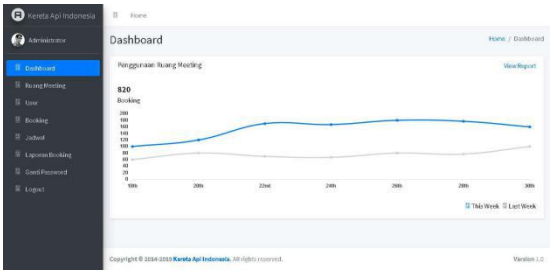
been booked automatically, from the available status to being booked. From the booking process that has been carried out by the user, the system directly processes the sending of a room booking data verification email.

Interface Sistem

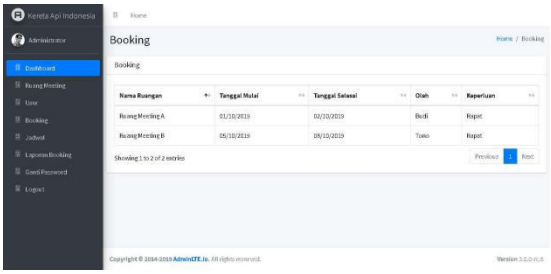
Mockup Dashboard Admin



Login Admin Dashboard View



Admin Dashboard View



Meeting Room Booking Data View

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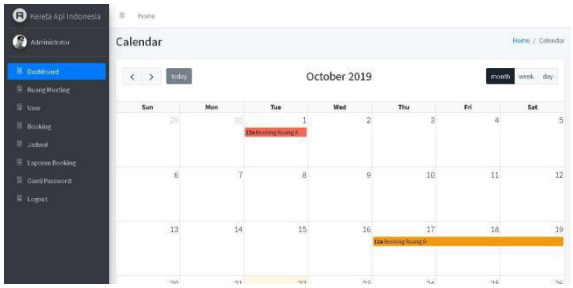

Display Data Booking Room Meeting seen by Calendar

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Mockup user display on Android Mobile

CONCLUSION

The conclusions obtained in making the Mobile Application Design for this meeting room reservation are as follows:

1. In this study an analysis of the current business processes has been carried out, so that problems can be found. Thus, a new business process system proposal can be made that can overcome existing problems.

2. The Meeting Room Booking Application is used to assist researchers in their research.

3. This research can be carried out in accordance with the framework of thought. Namely with the Decision Support System method as a method of making information systems and in accordance with user needs.

4. With the establishment of an Android- based meeting room ordering system, it is hoped that it can be used as a solution to overcome existing problems, and successfully utilizes Android smartphones and internet networks to run the meeting room booking system application so that users can take advantage of time efficiency, facilitate work and can be accessed from while doing other activities.

Suggestion

The application of the meeting room reservation system using the SPK method is of course still not perfect, there are still many things that can be done to develop this system to be even better, including:

1. With the development of cellular technology and operating systems, it is expected that there will be continued development to be able to develop this application through iOS.

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2. This queuing system is expected to be developed so that it can be used for the needs of booking larger meeting rooms or other larger gathering rooms that are better.

3. It is hoped that this queuing system will not only be used for the Cirebon 3 Operational Area but can also be implemented for other DAOP business processes at PT Kereta Api Indonesia (Persero).

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