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Online Attendance and Leave Application Using Mobile Web-Based Location and Photo Coordination Validation (Application to the Housing, Residential Areas and Environment Office of Trenggalek Regency)

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ABSTRACT

The development of an employee attendance system by utilizing online attendance with photos that are also used for employee leave applications. Online-based attendance systems and online leave applications are very useful for employees and companies. The problem raised in the background above, formulation of the problem is to build an employee online attendance and leave application using PHP and MySQL that are dynamic and structured to be more efficient. If this mobile web application is not made, it will be outdated to do a better absence because in this era all systems are very advanced and easy to use. In this research, what is used to create an attendance application is to use programming languages such as HTML, CSS, and PHP, and to make connections only by creating a database that will be used in creating what I will create.

Introduction

The development of internet technology in the past year has experienced very good progress. The use of information and communication technology today has become one of the factors that are very influential in the competitiveness and development of a company (Firliana & Rhohman, 2019).

This information technology cannot be separated in today's era which has or almost all of the world uses internet technology. The issues used in the internet world have been very global and always on time (Subiantoro & Sardiarinto, 2018). At this time, the development of new technology has moved towards smart devices (mobile/website). In terms of companies, can take advantage of the development of information and communication technology in almost all lines of the company's operations (Qois & Jumaryadi, 2021).

One of the uses of information and communication technology is the development of an employee attendance system by utilizing online attendance with photos that are also used for employee leave applications. Online-based attendance systems and online leave applications are very useful for employees and companies. Therefore, companies are required to use Attendance and online leave for company convenience (Yani & Rosyida, 2022).

The use of a mobile web attendance system and leave application can increase the efficiency of the human resources department in managing employee information, including in the supervision of the orderly administration of attendance and employee leave applications (Kholifah, Jefi, Solecha, & Fai, 2022). In addition, this software makes it easier for employees to make absences and apply for leave where most of the company's employees are employees who work in the field or do not work in one work area only. Employee attendance includes the employee's clock-in and work hours. Leave itself consists of daily sick leave (Arfah & Suwardoyo, 2022).

The location itself can be explained, namely as a place on the earth's surface. The location itself is located in various regions or called space and to determine employees when they are absent online outside the company (Sholahudin & Handayani, 2022).

This research will develop a mobile web with two sides, namely admin and user. The admin side includes a login form, an admin menu with dashboard sub-menus, employee data, leave data, and attendance data, as well as web settings. Admins can input, view, and print employee data, leave, and attendance (Rokhmah & Muslihah, 2021). The user side includes the login menu, dashboard, leave, and absence. Registered users can access their profiles, apply for leave, and view leave history as well as make attendance and attendance lists. The purpose of this research is to prepare for thesis research, while the benefit is to make it easier for employees to take attendance and leave online.

Method

Research Data

In this part the data that I have made and will test and in as much detail as possible explain the data and give examples in the form of photos if there are too many then attachments must be made.

Data Source

The data is used to compile and complete the data by means of library studies and internet searching. Online attendance and leave applications use location and photo coordinate validation.

Table 1
Data source table

No	Data	Information

1	study book	It is used to obtain data and information by searching for various author's journals, scientific papers, theses, and theses that are related to the problem in the report
2	Internet Searching	Internet searching is a data collection technique through the help of technology in the form of search engines/tools on the Internet where all information from various eras is available it.

How to Get Data

a. Observation

I made direct observations with the aim of obtaining attendance information that I built and designed to make it easier in the future, therefore I had to make some improvements in the future.

b. Interview

Collecting the data and information needed to build an attendance system to make it easier to attend online and will make it easier for employees to attend or take leave.

Data Collection Time

Table 2
Data Collection Table

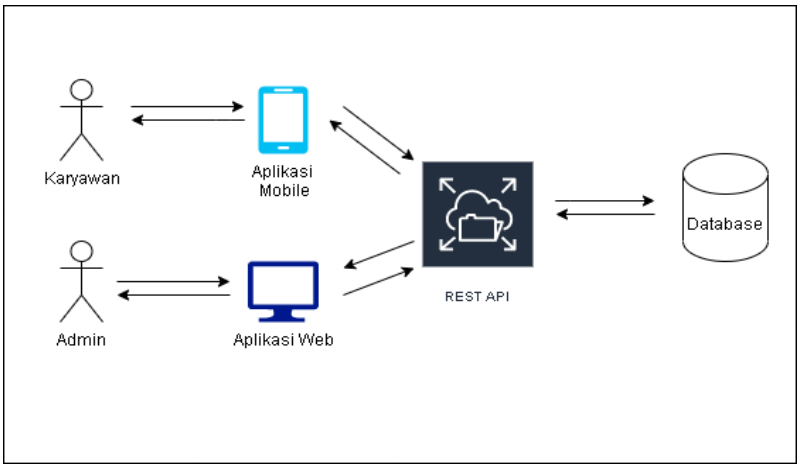
It	Heading	Author(th)	Technology	Tools (Programming languages, databases, etc.)	User	Feature
1.	GPS-Based Employee Attendance mobile application	Abas Surayana and Febriyant o and Jenny Januarini (2019)	Mobile	HTML and CSS and PHP MySql	Employee Admin	Employee Login and Absence Admin login dashboard menu

2.	Application Absorption Uses a Mobile Base Location	(Kuswanto, Wijonarko, & Cahyo, 2021)	Mobile	Waterfall and PHP and Mysql	Registrant Admin	Visitors View the web and log in Admin View Registration, Check Files
3.	Application of Student and Lecturer Attendance System	Rina Firliana and Fatkur Rhohman (2019)	Web	PHP and MySql	Lecturer Student Admin	Students Login in to the web and log in Lecturers on the web Admin Check registration, view data
4.	Planning Web-Based Information System for Processing Attendance Data and Taking Leave Letters	(Saraswaha, Kharisma, & Pinandito, 2023)	Web	PHP and MySql	Registrant Admin	Registrants view web lists using Gmail Admin Viewing Registration Data
5.	WebApp-Based Online Attendance and Leave	Arfan Chaaphut in the soul	Web Mobile	HTML and CSS PHP and MySQL Database and XAMPP	Employee Admin	Employees view web Login and register using Google

Applic
ation

Model Architecture

In the initial process, employees enter themselves and scan attendance before starting work. Then the system will save the data whose results will be displayed to the Admin. The admin processes employee data and the employee attendance schedule, and the system stores the data.



Analysis and Planning

It is a process of decomposing a subject and investigating the actual situation in an entity or finding indications of important components and elements in building an information system.

Results and Discussion

System Analysis

Analysis and design contain functional needs that contain input, process, and output needs as well as non-functional needs that contain software and hardware needs.

Running System Analysis

In the ongoing needs analysis, the need for software and hardware has been met and the input needs have also been met. Currently, the development of features for the application is underway.

Proposed System Analysis

Functional needs have a type of need that contains what processes are needed by the designed system.

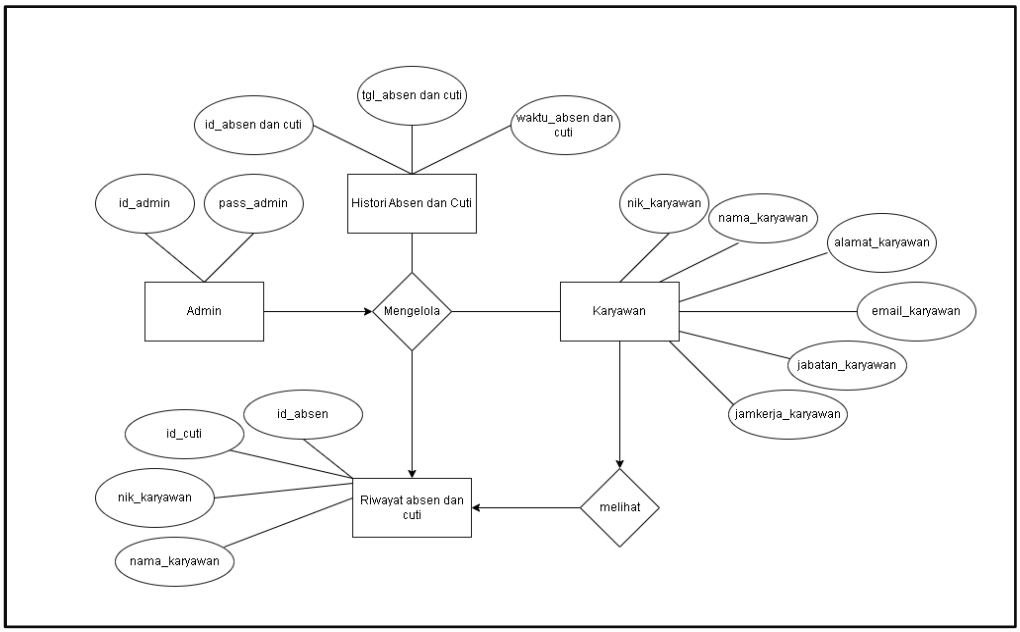
System Design

a. Entity Relationship Diagram (ERD)

At this stage, ERD is used to describe the relationships between entities contained in the application to be created. Attendance data collection applications have interconnected or related entities. Employee entities are *related one to many* to employee entities, attendance and leave schedules, and attendance and leave history. Employee entities are *one-to-one* related to the Absence and leave history entities.

b. Use Case Diagram

In the use case diagram, the admin has the right to log, manage employee data, attendance and leave data, and attendance and leave history.



Physical Design

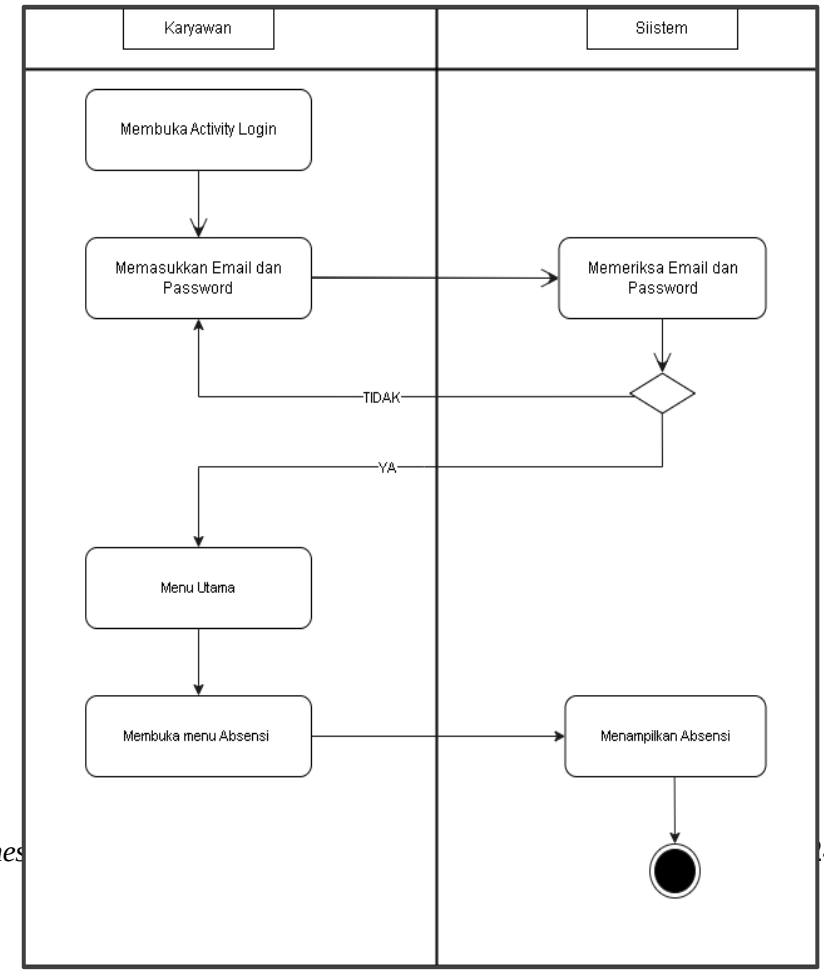
1. Activity Diagram

Activity diagrams are used to describe the system that occurs in an application. This diagram can also be used to illustrate the workflow contained in the

use case. Workflows that occur in login activities performed by Admins and employees.

2. Activity Diagram Input Absensi

The process begins by logging in to the website. When doing the system login process, you will be prompted to check your Email and password, if it matches the data stored in the database, it will display the attendance menu.



Activity Diagram Taking Leave

The process begins by logging in to the website. When doing the system login process, you will be prompted to check your Email and password, if it matches the data stored in the database, it will display the attendance menu. Then in the Dashboard menu, select the menu to take leave, after selecting the leave menu, it will display the leave information and leave date.

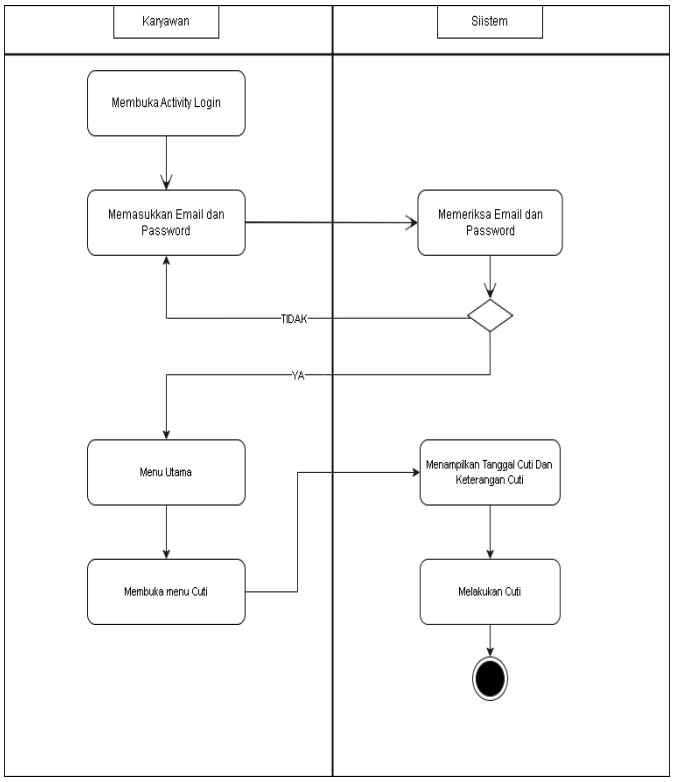


Figure 3 Activity Diagram of Taking Leave

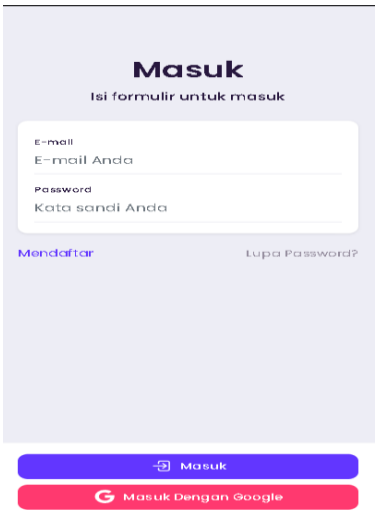
Implementation

Implementation is a continuation of the system design in the previous chapter. In the chapter on results and discussions, Kemudain explains how the system works and the results that have been loaded.

The results of the discussion on the creation of Online Attendance and Leave Using Validation of Location Coordinates and Mobile Web-Based Photos consist of the results of analysis, design, and coding.

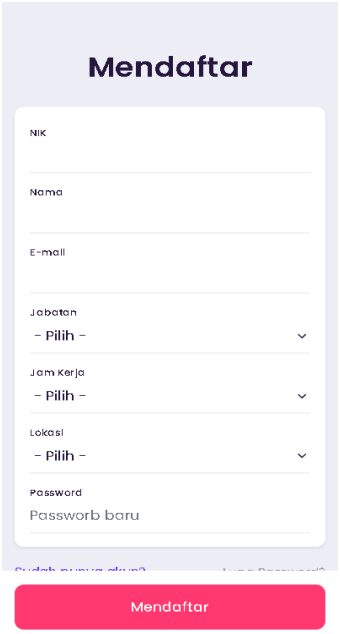
Login Display

The Login Menu is a menu to start logging in to the application by entering the username and password that has been registered previously.



Registration Display

A screenshot of a phone Description is automatically generated with medium confidence.



Dashboard Display

The dashboard menu is where it is on the menu after registering and logging in sessions. On the dashboard menu, the menu will display and will later be used to do online attendance and leave.

Attendance Display

On the display in the attendance menu, the user will be absent by taking a photo.

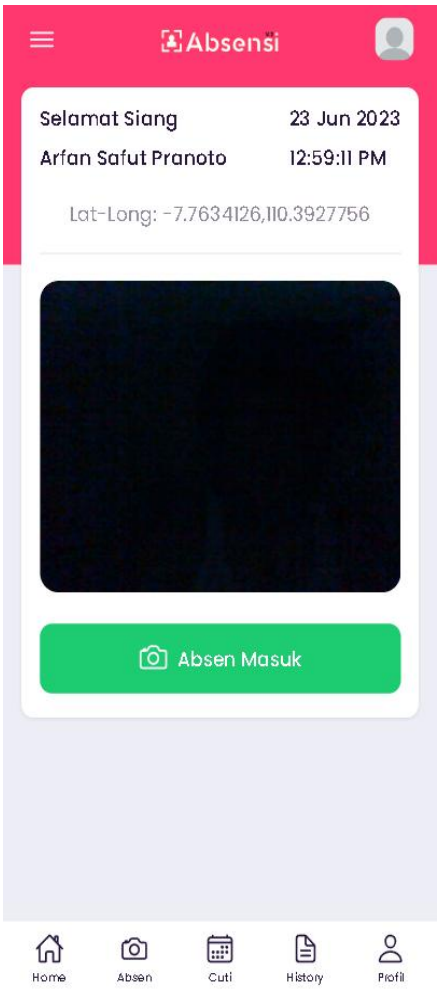


Figure 4 Attendance Menu Display

Leave View

On the leave display, the user will fill in the data to apply for leave to be used.

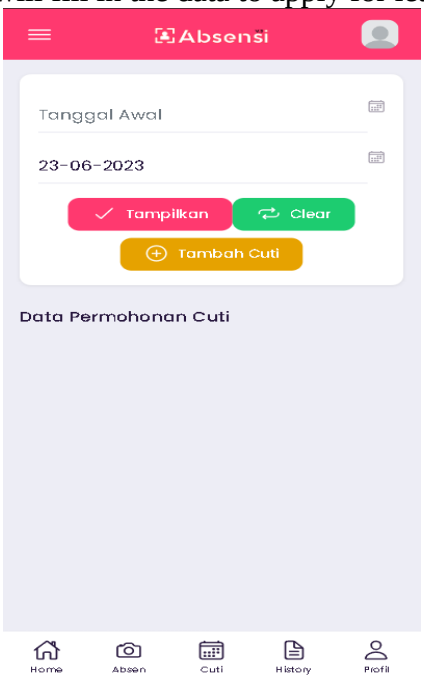


Figure 5 Leave Menu Display

The result of designing a Web-based Mobile Application for companies that will do Attendance online and can see attendance history quickly and well. The following are the results of the application design that has been made.

Conclusion

From the results of this study, it can be concluded that an online attendance and leave system because in this era it is very advanced, especially the attendance system is very good for use in companies such as offices, schools, universities, and I made this attendance system want to try or can make it easier for employees and students to do attendance online.

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