ANDROID-BASED ONLINE ATTENDANCE APPLICATION PT. HADI UNTUNG PERKASA

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Abstract: PT. Hadi Untung Perkasa is a company scale middle class engaged in the field contractor. This company has something system for absenteeism. Current employees walk manually. The COVID-19 pandemic situation of absenteeism was manually triggered. There is his crowd at one point, contaminated his tool fingerprints and to comply with health protocols. For the reasons above writer tries to give an alternative solution problem by creating something application system for online attendance with an attendance list of employees, arrival times, and leaving times. So, eliminating the recording process presence of current employees manually. Online attendance using polygon Google Maps means employees can be absent from their desks and places respectively. Online attendance is also equipped with *fake GPS detection* and binding IMEI on every smartphone*, so using online attendance will reduce the level of fraud and error in inputting data in the attendance process. Pada, this writing will also explain stages of quality, starting from the process of analysis, planning, and construction using the *framework* Flutter, *Rest* API, and Mysql for the database.

INTRODUCTION

System absenteeism is very important to know the presence of employees. Development system Currently, attendance has developed with the existence of supporting technology like computers and gadgets. The system's absence of use paper, computer programs, fingerprints, and now many have switched to using gadgets such as Android (Husain, 2017). The development of times and styles changed life, making everyone always hold and have a personal *smartphone*; the author utilizes Android *smartphones that* are in the hands of employees at PT. Hadi Untung Perkasa to do your attendance on your *smartphone*, especially since it has been installed and is ready to use. With the current situation and conditions where there are problems with COVID-19, you can operate protocol health as decision President number 11 of 2020 about the determination emergency health society and letters circular Governor of North Sumatra

number 440/2666/2020 dated March 17 about enhancement vigilance to risk transmission COVID 19 infection (Circular Letter Governor of North Sumatra, 2020). Therefore, machine absenteeism is one tool used by each agency for employees to take attendance by queuing at one point machine *(Finger-Print)* and pasting one finger on the engine sensor. The writer designed a system of absenteeism to avoid queue that causes crowding during roll call, guarding distance, and contamination machine *(Finger-Print)* by absent employees. In this study, the author wants to give A solution by designing an application system absenteeism capable android based overcome a number of weaknesses system manual and inclined attendance trigger crowd. The attendance process can only carried out in environmental areas that have been set. If employees are not in the environmental area, the application absenteeism Android-based cannot done.

Attendance is data that we have to fill in every day when we enter, usually in the form of employee personal data, the employee's day and time entered, and start Work. For guard discipline employees and complete data absenteeism employees, standard his company applies 2-timeattendance, namely entry time and return time, so that the data obtained from absenteeism employees are more complex. Absence in the company, some manually fill in sign hand, and some use *fingerprint*, attendance data is usually used as a rejection measuring the level of discipline of employee.

RESEARCH METHODS

Absence online is a solution recording presence That uses a systemcloud and is Already connected with databases in a way real-time. The system cloud allows the storage of attendance data to be carried out automatically. Besides that, data absenteeism can accessed anywhere, even When connected with an Internet connection. From the system Which displayed, Of course, just profit absenteeism onlineThis There are many.

Here are some of the benefits that online attendance has for companies and their employees:

a. More Cost Effective

Absence online No need for device physique machine absenteeism orinstallation system like type machine roll call fingerprints. Of course, this method will save expenses for the company itself. However, machine manually Still Lots is used by Lots company in Indonesia. This is due to the price of fingerprint machines and attendance tools. Others

are quite diverse. However, presence absenteeism online will give flexibilityso that You only need to register, download applications, as well as use a smartphone or laptop to access the attendance system. This system certainly makes it very easy for employees who work together mobile Because they do not need must come to the office due to absenteeism.

b. Minimal Fraud

Wrong One profit absenteeism online is generally supported with technology Global Positioning Systems (GPS) And biometrics, is minimize cheating. This technology will verify the attendance of employees at some places. Besides That, the position user application will also give information about its existence, Which GPS will easily track. Therefore, employees cannot manipulate data because data is digitally encrypted as well stored safely.

c. Monitored Real-time

Software slip wages connected with the Internet so that the ability to monitor data done in real-time. Superiority makes it easierto perform part of HRD in processing data presence as well aslateness employees. Besides That, synchronization more easy Because stored automatically with a cloud system.

d. Calculation O'clock Work Which Accurate

The attendance system is carried out online, which will calculate the hours worked accurately. Because the time used is synchronized automatically with time, it applies to all devices. Method This is very effective Because the calculation is considered more accurate.
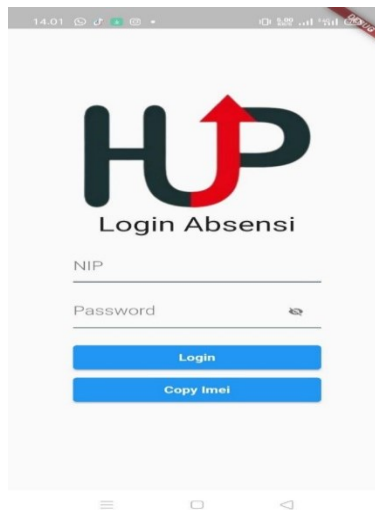
e. More Recap Easy

f. One of the advantages of creating an online attendance list is another way is makes it easier to record as well as data recapitulation employees. Likewise, data presence, absence, and lateness are recorded automatically without the need to move it in a way manually. Moreover, the system on line Also usually Already integrated between data so that the data changes will be done automatically and accurately. So that HRD or personnel will be more efficient in work.

RESULTS AND DISCUSSION

Implementation is the result of a design that becomes an application programThat can be operated and reach results in accordance with the design. Aftercarrying out the
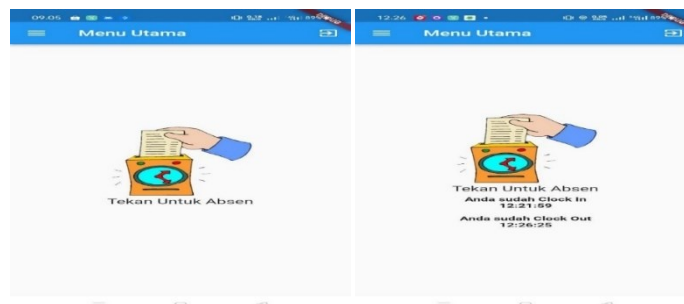
analysis and design stages, the next action is to achieve software results. A stage further after pass analysis and planning is implementation. Implementation is carried out as an effort to realize the system design. The steps of the implementation process are a sequence of initial activities to final activities that must be carried out in realizing it designed system. The result of this implementation stage is a system processing data, which has been running well.

Development inspects the program's new planning, new resources, and incorporation of new content/material into the program, which is already available based on test results in the field and research experience. The image below displays the login *form* to go to the main attendance menu. The login *form* that must be filled in is NIP, and the Password Already is given by Admin to the employee in picture 1 below.
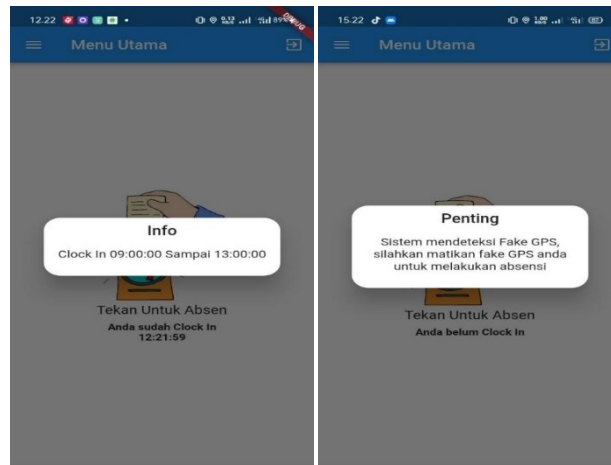

Picture 1 Login View

On the employee home display, there is a fingerprint image, and the words 'Press For 'Absence' which indicates absence is done there, then below it is information clock in time and clock out like in picture 2 below:
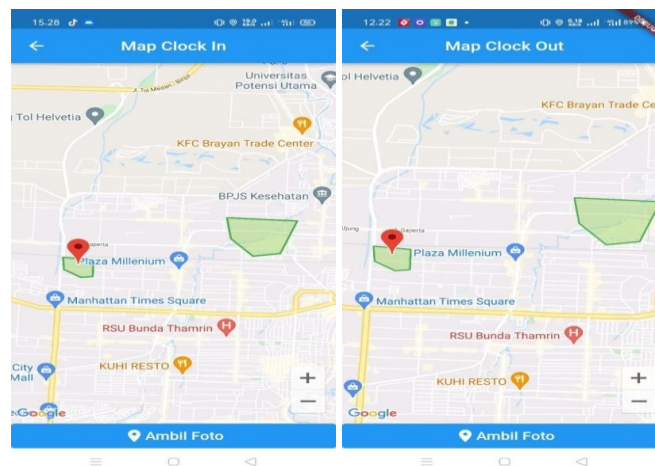

Picture 2 Appearance Home Employee
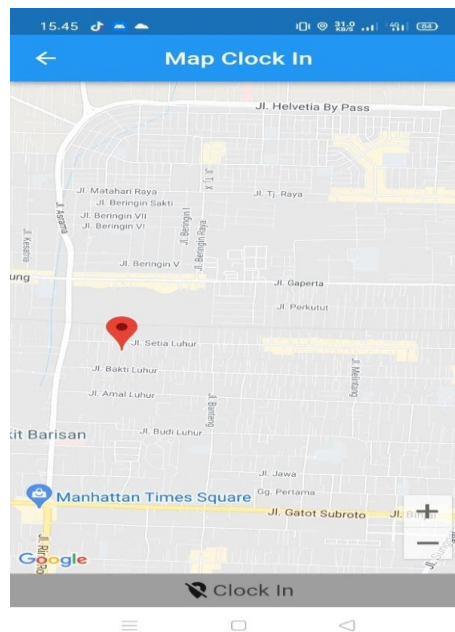
Pictures 3 Appearance Home Employee *Alerts*

This is the *alert display* from the attendance application, and the *alert* notifies us of what happens by the system. Here, *alert* Info conveys the O'clock Clock in and alert. It is important to convey that our application detects fake use of GPS. After pushing the knob Which the beacon fingerprint finger, we will be directedto the appearance of the clock in and clock out is displayed in picture 4 below:

Picture 4 Views *Clock in* and *Clocks Out*

This is the appearance of a clock-in and clock-out from the user employee; on the Appbar, there isinformation on whether the screen is clocked in or clocked out, and the screen will automatically clock out. If the employee has already clocked in that day, the body isThe maps have been given a green *polygon, and our location is marked with* an icon mark colored red; if We are in the location *polygon* Which is colored green, the so that We Can do *clock in* or *clock out*. Location *polygon* Can multi or more from one. After

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That, to do roll call (*clock in* or *clock out*), We must push the knob. Take Photos.

Picture 5 Views *Clock In* not in *Polygons*

This is the appearance *clock* However, location We are not in the *polygon,* so the knobwill be inactive to take attendance. If the knob *Clock In* is not active, we can't do *Clock In* and *Clocks Out*. If like so, we have to press the *back button* to return to the main page and go or move locations according to the area or areas given *polygon* green on Google Maps.

CONCLUSION

Excess this application is Android OS this is A system open source operations. This is caused because Android is one of them system-based operations Linux, so it is an OS that is easy to develop because own open source system. The lack of this application is Application needs an internet network and GPS to search for Location, and Registration is done manually in the database. The reasons above writer tries to give an alternative solution problem by creating something application system for online attendance with an attendance list of employees, arrival times, and leaving times. So, eliminating the recording process presence of current employees manually. Online attendance using polygon Google Maps means employees can be absent from their desks and places respectively. Online attendance is also equipped with *fake GPS detection* and binding IMEI on every smartphone*,* so using online attendance will reduce the level of fraud and error in inputting data in the

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REFERENCE

Abdul Kadir. 2003. *Pengantar Teknologi Informasi Edisi Revisi,* Andi Yogyakarta.

Alexander F. K. Sibero. 2014. *Kitab Suci Web Programing*. MediaKom. Yogyakarta.

Al Fattah Hanif. 2007. *Analisis dan Perancacangan Sistem Informasi untuk Keunggulan Bersaing Perusahaan dan Organisasi Modern*.CV Andi Offset. Yogyakarta.

Asmara, Rini. 2016. *Sistem Informasi Pengolahan Data Penanggulangan Bencana Pada Kantor Badan Penanggulangan Bencana Daerah (BPBD) Kabupaten Padang Pariaman. Jurnal J-Click. Volume 3 No 2*. Desember 2016. p. 80-91.

Betha Siddik. 2014. *Pemrograman Web PHP*. Informatika Bandung. Bandung. Destiningrum Mara, dan Adrian Qadhli Jahar. 2017. Sistem Informasi Penjadwalan

Dokter Berbasis Web dengan Menggunakan Framework Codeigniter. *Jurnal TeknoInfo. Vol.11 No 2*. p. 30-37.

Djahir dan Pratita. 2015. *Sistem Informasi Manajemen. CV Budi Utama*. Yogyakarta.

Hendini Ade. 2016. Pemodelan UMLSistem Informasi Monitoring Penjualan dan Stok Barang (Studi Kasus : Distro Zhezha Pontianak). *Jurnal Khatulistiwa Informatika. Vol. IV No.2 Desember 2016*. p. 107-116.

Hermawan Rudi, Hidayat Arif, dan Utomo Victor Gayuh. 2016. Sistem Informasi Penjadwalan Kegiatan Belajar Mengajar Berbasis Web. *Indonesian Journal on Software Engineering. Volume 2 No.1*. p. 31-38

Heriyanto Yunahar. 2018. Perancangan Sistem Informasi Rental Mobil Berbasis Web pada PT. APM RENT CAR. *Jurnal Intra-Tech. Volume 2 No.2 Oktober 2018. p. 64-77.*

Indrajani. 2015. *Database Design (Case Study All in One)*. PT. Elex Media Komputindo. Jakarta.

J, Hutahaean. 2015. *Konsep Sistem Informasi.* Deepublish. Yogyakarta.

Manalu Mamed Rofendy. 2015. Implementasi Sistem Informasi Penyewaan Mobil pada CV. BTN Padang Bulan dengan Metode Waterfall. *Jurnal Mantik Penusa. Volume 18 No.2*. Desember 2015. p. 34-43.

Maniah, Hamidini Dini. 2017. *Analisis dan Perancangan Sistem Informasi Pembahasan Secara Praktis Dengan Contoh Kasus*. Deepublish. Yogyakarta.

Muhtarom Moh, dan Suryani Fajar. 2018. *Pengembangan Sistem Pembayaran Menggunakan Model Prototype Pada SMK Mandala Bhakti Surakarta*. Politeknosains. Vol. XVII No.2. September 2018. p. 17-22.

Mulyadi. 2016. *Sistem akuntansi Edisi 4*. Salemba Empat. Jakarta.

Nurhayani. 2015. Implementasi Pendekatan Beroroentasi Objek dengan Metode Object Oriented Analysis (OOA). *Jurnal IPTEK. Juni 2015*. p. 1-5.

Purnomo Dwi. 2017. Model Prototyping pada Pengembangan Sistem Informasi. *Jurnal Informatika Merdeka Pasuruan. Volume. 2 No.2 Agustus 2017*. p. 54-61.

Romney dan Steinbart. 2015. *Sistem Informasi Akuntansi. Salemba Empat*. Jakarta.

Sari, Hesty Puspita. 2017. Sistem Aplikasi Pengolahan Nilai Raport SDN Tanjunganom 2 Kecamatan Tanjunganom Nganjuk. *Jurnal Ilmiah dan Teknik Informatika. Volume. 11 No1. Mei 2017*. p. 65-80.

Sukamto, R.A. dan Shalahuddin, M. 2016. *Rekayasa Perangkat Lunak. Informatika Bandung*. Bandung.

Suroso. 2016. Sistem Informasi Akuntansi Penerimaan dan Pengeluaran Kas pada PT. Sinar Galuh Pratama. *Jurnal Ilmiah Dunia Ilmu. Vol.2 No.1. Maret 2016*. p. 137-149.

Sutopo. Cahyadi, dan Arifin. 2016. Sistem Informasi Eksekutif Sebaran Penjualan Kendaraan Bermotor Roda 2 Di Kalimantan Timur Berbasis Web. *Jurnal Informatika Mulawarman. Vol. 11 No.1*. Februari 2016. p. 23- 28.

Swara Ganda Yoga, dan Pebriadi Yunes. 2016. Rekayasa Perangkat Lunak Pemesanan Tiket Nonton Bioskop Berbasis Web. *Jurnal TECNOIF. Vol.4 No. 2. Oktober 2016*. p. 29-39.

Yakub. 2012. *Pengantar Sistem Informasi. Graha Ilmu*. Yogyakarta.

Yusri. 2015. *Sistem Informasi Perpustakaan Berbasis Web pada SMP Frater Makasar*. Jupiter. Volume.XIV. No.2. p. 66-77.