



ATTENDANCE RECORD PROGRAM WITH WEB-BASED DESIGN FOR FIELD EMPLOYEES IN PT. PUTRA MAJU LESTARI

Diky Firdaus, S.Kom, MM¹, Widya Nurwahyuni Propitari²

Department of Information System, Faculty of Computer Science, Universitas Mercu Buana
Jl. Raya Meruya Selatan, Kembangan, Jakarta, 11650
diky.firdaus@mercubuana.ac.id widyaayu84@yahoo.com

Manuscript History

Number: IRJCS/RS/Vol.05/Issue03/MRCS10080

<https://doi.org/10.26562/IRJCS.2018.MRCS10080>

Received: 21, February 2018

Final Correction: 28, February 2018

Final Accepted: 05, March 2018

Published: March 2018

Citation: Firdaus, S.Kom, MM & Widya (2018). ATTENDANCE RECORD PROGRAM WITH WEB-BASED DESIGN FOR FIELD EMPLOYEES IN PT. PUTRA MAJU LESTARI. IRJCS:: International Research Journal of Computer Science, Volume V, 97-102. doi: //10.26562/IRJCS.2018.MRCS10080

Editor: Dr.A.Arul L.S, Chief Editor, IRJCS, AM Publications, India

Copyright: ©2018 This is an open access article distributed under the terms of the Creative Commons Attribution License, Which Permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited

Abstract - Attendance is essential for an agency or company because it can be used to assess the amount of employee's salary as well as employee's performance. Therefore, attendance program is needed to maximize the company's performance. Research method used in the employee attendance system is descriptive research, yet for the development of the system, it uses survey system, analysis system, design system, system creation, system implementation and system maintenance that are expected to assist the development of employee attendance system. The application is created by using the programming language PHP and MySQL as its database. In this system the data processing becomes more effective and efficient. In addition to it, data search could be more easily conducted. The purpose of this study is to design employee attendance system that is expected to help company's performing more quickly and practically, especially in the field of Human Resources. This program can show all absentee recaps that employees can do to calculate the salary.

Keywords: Attendance; Website; PHP; Effectiveness of the company;

I. INTRODUCTION

The development of computer technology today encourages all activities to be more effective and efficient, where the presentation and processing of certain information is expected to be obtained quickly. In the work world itself, the utilization of computer technology is so great in every company activity. Among them is the goal to get the convenience of field employees to submit their daily attendance. Along with the developing time, work system tool management in the form of online attendance is needed to help the work process faster and easier. One of the purpose in order to get the convenience for field employees to submit their daily absences by online through the website and benefits for companies that can save on financial expenses for daily employee payroll. The formulation of problems in this program is as follows: 1. How does the employee absence process in the program take place? 2. How to make the attendance program easy to understand and accessed? 3. What are the benefits of the company in this attendance program?. The purpose of making this field employee attendance record program with web-based is to facilitate the employees of PT. Putra Maju Lestari when gives their daily absences.

The benefits of making this program is to help the employees shorten the time to come directly to the project without having to spend the time to submit their attendance record everyday to the office in advance and the company can save on the expenses of employees salary. To identify the problems and avoid the occurrence of dilation problems that will be described in this writing, so the problem limitation that will determine by the author is as follows: • This program uses PHP programming language and MYSQL database • This program does not provide Online Chatting and Mobile app features • This attendance record program only serves the scope of field employee of PT. Putu Maju Lestari. The method that will be used is using Action Research Methods and Methods of Design and Software.

Andi Nugroho¹, Retno Setya Wulandary², “Pengelolaan Presensi Dan Gaji Asisten Lab Berbasis Web Di Fasilkom Universitas Mercu Buana”, Jurnal Ilmiah FIFO, page 1-8, Volume VIII/No. 1/Mei/2016

“.....Based on the above description, then made a presence management application and salary assistant lab at the Faculty of Mercubuana University. With the application of the data attendance assistant lab can be accountable and the calculation of salary can be monitored by laboratory and financial section in accordance with the existing attendance data on the application. It is expected that the amount of salary received by the lab assistant matches the existing attendance data.”

II. RELATED WORK

Devi Fitriana, dan Yudho Giri Sucahyo, “Audit Sistem Informasi/Teknologi Informasi Dengan Kerangka Kerja Cobit Untuk Evaluasi Manajemen Teknologi Informasi Di Universitas Xyz”, Page 37-46, Jurnal Sistem Informasi MTI-UI, Volume 4, Nomor 1, ISBN 1412-8896.

“Utilization of Information Technology as a supporter of achieving the goals and objectives of the organization must be balanced with the effectiveness and efficiency of its management.....”

System is a network of procedures that are interconnected, gathered together to perform an activity or solve a particular target. Another meaning is a collection of elements that interact to achieve a certain goal.

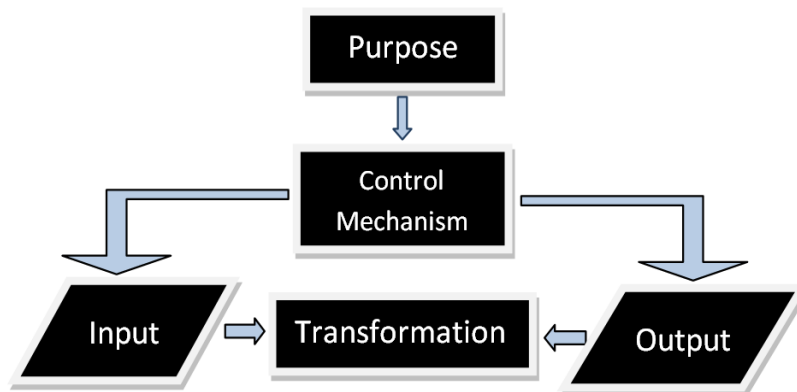


Fig 1. System Overview

- Goals become the motivation that directs the system. Without goals, the system becomes uncontrollable
- Control and feedback mechanisms, used to control inputs or processes. The goal is to set the system to run in accordance with the goal
- Input is something that goes into the system and then becomes the material to be processed. They can be physical (raw material) or invisible things (services)
- Process, is the part that makes a change from input into useful and more valuable (information) or useless (waste) outputs
- Output, is the result of the process. In the information systems, in the form of information or reports, etc.
- Boundary, is the separator between the system and the outside area of the system. The limit here specifies the configuration, scope or capability of the system. Limits can also be changed or modified so as to alter the system behavior.

Definition of Software:

Software is a specific object that can be run like a source code, object code or a complete program. The software product has a software definition that is added with all the items and support services that overall can meet the needs of the users. Software cannot be held and see with physical shape. Software does not appear physically / tangible objects, but the software can be operated and run. This is the software that the author uses in making this online absence program:

- **Website.** Website or commonly referred to as Web can be interpreted a collections of pages that display a variety of text, data, still or moving images, animation data, sound, video or a combination of all, both static and dynamic, a series of interconnected buildings in which each is linked to a network of pages or hyperlinks. Website pages are usually documents which written in Hyper Text Markup Language (HTML) format, which can be accessed via HTTP, HTTP is a protocol that conveys various information from a website server to be displayed to users or users via a web browser or the internet.
- **Web Database.** According to Yuhefizar, Mooduto, & Hidayat, R. (2009), the Web is a method for displaying information on the internet, whether text, images, sound or video interactive and has the advantage to link one document to another (hypertext) that can be accessed through a browser. Meanwhile, according to O'Brien and Marakas (2010: 173) the database is an integrated collection of data elements that are logically interconnected. The database consolidates the various records that were previously stored in separate files into a single common data element that provides data for many applications. The data stored in the database is independent from the application program that uses it and from the type of storage equipment where they are stored. Thus, the database contains various data elements that describe the various entities and relationships between entities.
- **PHP (HyperText Preprocessor).** PHP (HyperText Preprocessor) is a server side scripting primarily language which inserted into HTML running on the server, and can also be used to create desktop applications.
- **MySQL.** This software of SQL database management system (DBS) or multithread DBMS, multi-user, with around 6 million installations in the worldwide. MySQL can be used for free under the GNU General Public License or GPL, but they also sell under a commercial license for cases where the user does not match the use of the GPL.
- **Sublime Text.** According to Faridl (2015: 3), "Sublime text is a Python-based text editor, an elegant, and feature-rich, cross platform, easy and simple text editor that is well-known among developers, writers and designers. Programmers usually use sublime text to edit the source code they are working on. Until now sublime text has reached version 3".
- **XAMPP.** XAMPP is free software that supports multiple operating systems, is a mixture of several programs. Which has a function as a stand-alone server (localhost), which consists of MySQL database program, Apache HTTP Server, and translator written in PHP and Perl programming language.

III. METHOD

The waterfall model is also called the software life cycle. Takes basic activities such as specification, development, validation, and evolution and represents it as different process phases such as requirements specification, software design, implementation, testing and so on.

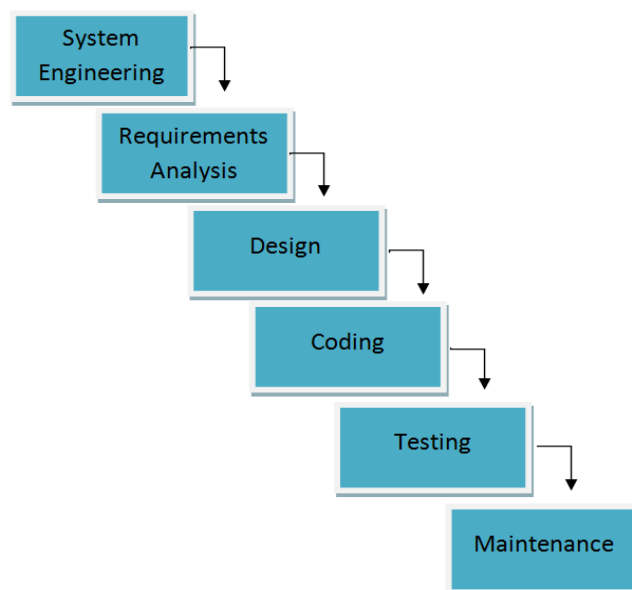


Fig 2. Phases in Waterfall

Description According to the picture above the flow of the Waterfall Model as follows:

1. Software engineering (system engineering), collecting data and determining the needs of all elements of the system.
2. Requirements analysis, analyze the problems encountered and define software requirements, performance and interfacing functions.
3. Design, set the information domain for software, function and interfacing.
4. Coding (implementation), coding that implements design results into code or languages understood by computer machines by using certain programming languages.
5. Testing (testing), activities to test the program that has been made whether already correct or not tested manually. if testing is correct then the program may be used.
6. Maintenance, handling the finished software in order to run smoothly and avoid the disturbances that can cause damage.

Excess Waterfall method is a figure method for large-scale system, is generic, and easy to control. While the shortcomings are expensive costs require a long development time, will continue to change as needed, not suitable for development of high complexity projects.

Analysis (Analysis)

In this final project, an employee absentee application will be made at PT. Putu Maju Lestari who can help the employees shorten the time in attendance so that employees can directly perform their duties either in the field or in the client office. In this case the delivery of material is made in a web-based application so that employees can access directly from the phone or other devices connected to the internet media. In this application employees can access some facilities as needed and their level of responsibility.

System planning:

System design is pictures, sketch or arrangement in the making of some separate rules into a whole unified. The purpose of this design application is to provide an overview to the user about the application to be created and provide illustration or complete application engineering to be implemented into the program.

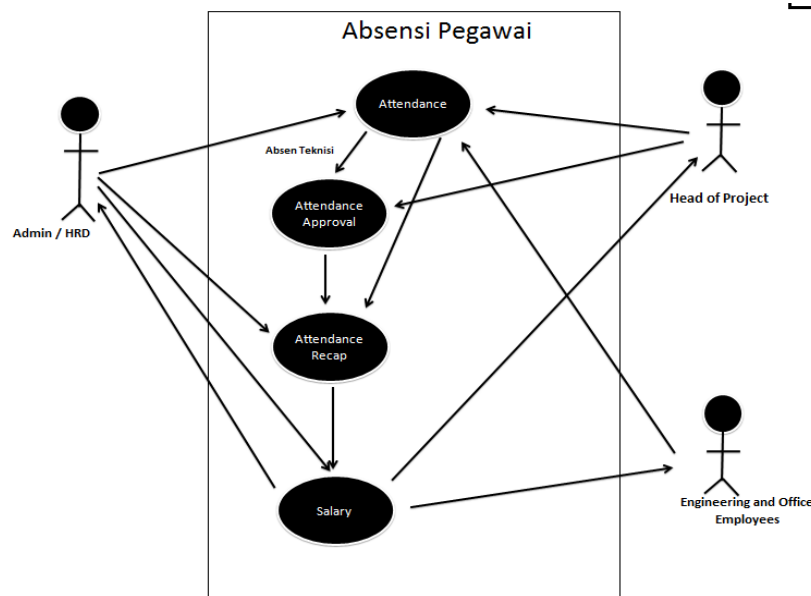


Fig 3. Use Case Diagram System

This diagram shows the set of use cases and actors. According to Munawar (2005: 64) that the use case is a function description of a system from the user's perspective. The use case works by describing the typical interaction between users (users) of a system with its own system through a story of how a system is used. In the talk about use cases, users are usually called actors. Actor is a role that can be played by the user in every interaction with the system.

Use Case Diagram of employee absenteeism implementation which described in Figure 3, it shows the user can do some activities with the first step to login first, after login, the user can do the absence (attendance) on the menu that has been provided, then the attendance input will go to the Absent Approval process and recap Data Absent before getting to payroll. This scenario explains the initial process before doing the absence then the user must enter by using the user name and password they have and the program will read the user name into the level where to display the menu that can be accessed by the user itself, after that the user managed to enter the main menu of attendance program according to their level.

IV. RESULT AND DISCUSSION

After analyzing and designing, the next step is implementation and testing. This stage describes materials collection methods, making using Notepad ++, testing, hardware specifications, software (software) and anything else which related to this application. To carry out this research, it would require supporting tools in the form of hardware (hardware) and software (Software), tools that will be used, it will be described as follows.

The following hardware specifications are used during system development:

TABLE I - LAPTOP SPECIFICATIONS

Hardware (Hardware)	Software (Software)
1. Processor: Intel (R) Core (TM) 2 Duo T6570 @2.10Hz (2CPUs), ~2.1Ghz	1. Windows 7 as the operating system
2. Memory: 4.00 GB	2. Xampp V3.2.1
3. Hard disc: 782 GB	3. Sublime Text 2
4. Keyboard: Include Laptop	4. PhpMySql
	5. Google Chrome

There are 3 levels in this attendance program where each level has a different limit access to the system. Here are the views menu that exist in the attendance system of PT. Putu Maju Lestari employees based on their respective level:

1. Attendance Menu where the menu will exist at each access level to be able to in and out attendance.
2. Attendance Data Menu, the attendance data menu is same as the attendance menu where the menu will exist at each access level to be able to see back the recording data for absent in and out that users have done.
3. Salary Recap menu is a menu that can be accessed only through the account of Admin / HRD, in this menu Admin can choose the monthly salary process in advance for the system to calculate the number of employees who have done the absence, after that a salary report can be done to forward data that exists into the database that will enter on the salary data recap menu.
4. Recap data menu, in this menu there are 2 divisions of the menu, namely:
 - a) Report of absentee employees to see the employee absentee data completely and can only be accessed by the level of Admin / HRD.
 - b) Payroll report in order to see salary/wage of employees in accordance with the absenteeism of the employees.
5. Master data Menu, in this menu there are 2 divisions of the menu, namely:
 - a) Employee data in order to see the employee data completely.
 - b) Account in order to see the user account data listed complete.
6. Leave Menu where the employees can make online leave and can be seen by HRD.
7. Setup menu to reset the user password itself.

TABLE II - ATTENDANCE PROGRAM TESTING

No.	Testing	Plan	Expected results	Test results
1	Login Page Testing	Enter User name and Password that have been registered	Success, and the user can use the system for his needs	SUCCESS
2	Employee Data Input Testing	Admin chooses the employee data menu and clicks add employee button and then submit	Once the all data is filled in accordance with employee entering data and the submission process finished, the employee data automatically stored and employees get an account with a standard password	SUCCESS
3	Testing of Absent Input Menu	On the attendance menu, the employee selects the absent entry and absent out	Once submitted then the data will be automatically filled with the same hours at the time the submission process is complete	SUCCESS
4	Testing of Attendance approval Menu	Click the attendance approval menu that can be accessed by the head project	Users can do approval and data recorded into the HRD recap data to find out the employee's salary	SUCCESS
5	Testing of Pay Slip Menu	Enter the date period that we want to recap and submit, select the employee data that will be print out for the slip	After entering the period date, it will appear salary data of employees who have been doing absenteeism, select one of the employee data, then the slips will appear and ready to print out	SUCCESS

V. CONCLUSION

Conclusions. Based on the stages of analysis, design, implementation and testing has been done by the author on a web-based employee absentee application at PT. Putra Maju Lestari, the following conclusions can be obtained:

1. Employee absenteeism process done by 2 categories of attendance access that non-technician attendant can directly attend and absent on absent recapture database, while for the technicians employee category, the attendance will enter at the stage of absentee approval first that will done by the head of the project, then the technician's attendance can enter on absent recap database.
2. In this study, the authors make an application to facilitate employees to attend online through the web that can be accessed anywhere. This application can be used by all employees of PT. Putra Maju Lestari and can be an attraction for workers who want to absent more easily but do not have to waste time go to the office first.
3. The benefit for the company from this program is the company can save the cost of salary expenses employees. If previously the company had to pay the employee's travel time who attend the absence to the office first to absent and then go the project location, then in this attendance program, the company can ask workers to directly come faster to the project and do attend in the project location.

Suggestions. The implementations that have been made by the author of course there is still much to be developed in order to improve the quality and usefulness. There are several suggestions written by the author that need to be added to the next author, namely:

1. The author will suggest updates on the company's display system to make it more users friendly.
2. The addition of other Interfaces in this application to make it better.

REFERENCES

1. Andi Nugroho¹, Retno Setya Wulandary², "Pengelolaan Presensi Dan Gaji Asisten Lab Berbasis Web Di Fasilkom Universitas Mercu Buana", Jurnal Ilmiah FIFO, page 1-8, Volume VIII/No. 1/Mei/2016.
2. Devi Fitriannah, dan Yudho Giri Sucahyo, "Audit Sistem Informasi/Teknologi Informasi Dengan Kerangka Kerja Cobit Untuk Evaluasi Manajemen Teknologi Informasi Di Universitas Xyz", Page 37-46, Jurnal Sistem Informasi MTI-UI, Volume 4, Nomor 1, ISBN 1412-8896.
3. Abdul Kadir (2003:54), Pengenalan Sistem Informasi, Andi. Yogyakarta.
4. Al Bahra bin Ladjamudin (2006:3), Rekayasa Perangkat Lunak, Penerbit Graha Ilmu, Yogyakarta.
5. Betha Sidik. (2012 : 4), Pemrograman Web dengan PHP, Informatika, Bandung.
6. Faridl, Miftah. 2015. Fitur Dahsyat Sublime Text 3. Surabaya: LUG STIKOM.
7. Gutmans, Andi. (2005). PHP 5 Programming. United State : Prentice Hall.
8. Ian Sommerville. (2003), Software Engineering (Rekayasa Perangkat Lunak)/Ian Sommerville. Jakarta : Erlangga.
9. Jogiyanto, H. (2005:2). Analisis dan Desain Sistem Informasi, Andi. Yogyakarta.
10. Makalare, V.G. (2015), Perancangan Sistem Informasi Absensi Karyawan Berbasis Web di PT. Bank Prisma Dana Kantor Pusat Manado. Jurusan Teknik Elektro Kementrian Riset Teknologi dan Pendidikan Tinggi Politeknik Negeri Manado.
11. O'Brien dan Marakas, (2010). Management System Information. McGraw Hill, New York.
12. Pressman, R.S. (2015:42). Rekayasa Perangkat Lunak: Pendekatan Praktisi Buku I, Andi. Yogyakarta.
13. Yuhefizar, Mooduto, & Hidayat, R. (2009). Cara Mudah Membangun Website Interaktif Menggunakan Content Management System Joomla Edisi Revisi. Jakarta: PT Elex Media Komputindo.