Automated Part-time Payroll System Based on Attendance

By Rachman Wintarto 13499

A dissertation submitted in fulfillment of the requirements for the Bachelor of Technology (Hons) (Business Information System)

September 2012

Universiti Teknologi PETRONAS Bandar Seri Iskandar 31750 Tronoh Perak Darul Ridzuan

CERTIFICATION OF APPROVAL

Automated Part-time Payroll System Based on Attendance

by

Rachman Wintarto

13499

A dissertation submitted to the

Business Information System Programme

Universiti Teknologi PETRONAS

in partial fulfillment of the requirement for the

Bachelor of Technology (Hons)

(Business Information System)

Approved by,

(Mr. Faizal Bin Ahmad Fadzil)

UNIVERSITI TEKNOLOGI PETRONAS TRONOH, PERAK September 2012

CERTIFICATION OF ORIGINALITY

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements, and that the original work contained herein have not been undertaken or done by unspecified sources or persons.

⁽Rachman Wintarto, ID: 13499)

ABSTRACT

Attendance and payroll are vital function that has become the primary responsibility of a company. Payroll main function is to provide compensation to employees in the form of salary in exchange for their attendance and contribution to the company. Most of companies have the data of its permanent employee or its full time employee thus, the part time employee usually stepped aside. Therefore, it would be nice if there is an application that can cover it all, complete with calculations and database, especially for a part time employee that works in the company.

Part time employee attendances and payroll system at most currently still are using manual systems which are the filling system and attendance sheet with the employee's signature which is less effective and efficient. To address these problems required a new system to be able to fix the system used today.

The result of this program is the creation of attendance system using an application form and automates form of salary calculation in the payroll process.

ACKNOWLEDGEMENT

By the Name of Allah, the Most Gracious and the Most Merciful First of all, I would like to express my deepest sense of gratitude to my supervisor Mr. Faizal Bin Ahmad Fadzil for his patient guidance, encouragement, understanding, and excellent advice throughout this study.

I am deeply and forever indebted to the people in my life that touched my heart and gave me strength to move forward to something better. The people who inspire me to live my life, who encourage me to understand who I am, and who believe in me when no one else does. I dedicate this study to the mountain that bore all the storms and conditions for my sake, to my father, Prof. Dr. Agr. Ir. Johan Setianto and to the source of my light and pleasure to the one who enlightens my life, to my beloved mother, Elly Kardiani, SH and to my only brother, Ilham Handianto.

Finally am also thankful to all of my best friends, friends, colleagues and UTP, especially from the Faculty of Technology for their help and support, with whom I shared pleasant times for over three and half years.

TABLE OF CONTENTS

CERTIFICA	TION OF APPROVAL	•	•	i
CERTIFICA	TION OF ORIGINALITY		•	ii
ABSTRACT			•	iii
ACKNOLEI	DGEMENT		•	iv
TABLE OF	CONTENT		•	v
TABLE OF	FIGURE	•	•	vii
TABLE OF	ГАВLЕ		•	viii
CHAPTER 1	INTRODUCTION		•	1
1.1	Background of Study	•	•	1
1.2	Problem Statement	•	•	1
	1.2.1 Data Storage	•	•	2
1.3	Objectives		•	2
1.4	Scope of Study	•	•	2
CHAPTER 2	ELITERATURE REVIEW	•	•	3
2.1	Introduction	•	•	3
2.2	Time and Attendance Management System .		•	4
2.3	Payroll Management System			5
2.4	Database Management System		•	6
2.5	Disadvantages and Advantages of the Systems.		•	6
CHAPTER 3	B: METHODOLOGY		•	8
3.1	Methodology		•	8
3.2	Requirement Definition	•	•	8
3.3	System Design	•	•	9
3.4	Implementation	•	•	9
3.5	Integration and Testing	•	•	9
3.6	Operation and Maintenance			10

CHAPTER 4	: RES	ULT AI	ND DIS	SCUSS	SION.	•		•		11
4.1	Introd	uction								11
4.2	Result	s and D	oiscussi	ons.			•			11
	4.2.1	Attend	lance P	rocess	and Pa	yroll P	rocess.			12
	4.2.2	Role I	Descrip	tion of	the Sy	stem w	ith Usec	ase Dig	gram	12
	4.2.3	Activi	ty Diag	gram						14
	4.2.4	Surve	y Resul	t.						15
	4.2.5	The S	ystem							18
CHAPTER 5	: CON	CLUSI	ON AN	ND RE	COM	MEND	ATION	S		25
5.1	Concl	usion								25
5.2	Recon	nmenda	tions							26
REFERENC	ES									27
APPENDIX										28

TABLE OF FIGURES

Figure 3.1 Sequence of Methodology.		•	•	•	•	•	8
Figure 4.1 User Usecase Diagram		•					13
Figure 4.2 Administrator Usecase Dia	gram	•					13
Figure 4.3 Activity Diagram .							14
Figure 4.4 Survey Results 1 .		•					15
Figure 4.5 Survey Results 2 .		•					15
Figure 4.6 Survey Results 3 .							16
Figure 4.7 Survey Results 4 .							16
Figure 4.8 Survey Results 5 .		•					16
Figure 4.9 Survey Results 6 .		•					17
Figure 4.10 Survey Results 7 .		•					17
Figure 4.11 Survey Results 8 .		•					17
Figure 4.12 Survey Results 9 .							18
Figure 4.13 Survey Results 10		•					18
Figure 4.14 Sketch of Interface Design	n	•					19
Figure 4.15 Attendance Start-up Intert	face	•					19
Figure 4.16 Registration Interface		•					20
Figure 4.17 Log In Interface		•					20
Figure 4.18 Forgot Password		•					21
Figure 4.19 Administrator Main Menu	1	•					21
Figure 4.20 Manage Employee		•					22
Figure 4.21 Profile Interface		•					23
Figure 4.22 Individual Payroll Report							24
Figure 4.23 Attendance Interface							24

TABLE OF TABLES

Table 4.1 Software Requirement	•	•	•	•	•	•	11
Table 4.2 Hardware Requirement	•	•		•		•	12
Table 4.3 User Usecase Description	•	•		•		•	13
Table 4.4 Administrator Usecase Des	scriptio	n.	•	•	•		14

CHAPTER 1 INTRODUCTION

1.1 Background of Study

Attendance and payroll information system is an essential part of a company where the company needs to record a data of its employee, especially the part time employee where it will lead to an efficient wage expenses for the company.

Most of the company nowadays is still using a manual system in the process of part time employee attendance and payroll. It may occur in the absence of fraud such as day care absences, slower data processing as the paper work is processing and possibly could lead into delays payment of salary. Thus, if something goes wrong, the calculation of salary payroll might lead to inaccurate information to the detriment of employees and the company itself. Therefore, the information system is needed to solve the problem. Therefore, to achieve a better record and data processing especially to process the data of part time employee, an "Automated Attendance Based Part-time Payroll" is needed.

The system should provide tools for payroll calculation based on employee's attendance. To avoid the fraud that occurred in the process of attendance, the system will generate some random questions about the employee's personal data during the process taken so that the process cannot be replaced by employees or other associates.

1.2 Problem Statement

The forms of part time employee's attendance nowadays mostly are still conventional and not efficient where a company cannot ensure the exact time and authenticity of an employee attendance. Employee attendance, payroll and all of reports regarding to attendance and payroll are mostly done manually which consume too much time in the paper works process yet it is vulnerable to errors.

1.2.1 Data Storage

Data about part time employee shall be stored in database with only authorized personnel can proceed to evaluate and to observe the pattern of the employee and thus to record their payroll based on attendance agreed, could be hourly, weekly or annually.

1.3 Objectives

The objective of the study is to create:

- An automated part time employee salary payroll based on their attendance, to automatically generate a report of part time employee payroll and attendance,
- To store part time employee data and to increase the company business expenses efficiency through part time employee payment.

1.4 Scope of Study

The scope of the study is limited to:

- Part time employee as the user to log in and log out in to the system,
- Selected staff from finance department as the authorized personnel to gain access of this system to generate payroll and reports,
- Selected staff from human resources department as the authorized personnel to gain access of this system to evaluate the attendance of the part time employee.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

A part-time job is a form of employment that carries fewer hours per week than a fulltime job. Workers are considered to be part time if they commonly work fewer than 30 or 35 hours per week (Wikipedia). There are no legal guidelines that determine whether or not an employee is a part time or full time employee. A determination of whether an employee is working part time depends on the company's policy and practice of defining employees and the hours required to be considered full time. There are many reasons for working part time, including the desire to do so, having one's hours cut back by an employer and being unable to find a full-time job.

Previously the work procedures in many organizations were done by paperwork, which may cause many faults and inaccuracy, and this made gap between the manager or administrator and employee and customer (Harold, 2000). Rotchford and Roberts (1982) refer part time workers as the "missing persons" in organizational research where they believed that reference in economic and popular literature to part time worker attitudes and behavior consist almost exclusively of unsupported, subjective, managerial report that address part time worker solely on the basis of hours of work.

There are two major issues regarding part time employee that are attendance and salary payment. Part time employee usually treated less than the permanent employee. No safe saved data record, manual attendance with attendance sheet and signature, no structured report on it and usually it cause delay on salary payment. This thing all happened because there was no automatic system that enables department in charge to properly manage this part time employee. Even though there are records on their attendance, things are done manually which cause un-efficient time management.

2.2 Time and Attendance Management System

Attendance Management System is a software developed to access the attendance information of a particular student or employee in a particular class or company for daily attendance in schools, colleges, institutes and companies. The information is sorted by the authorized operators, which will be provided by the teacher for a particular class. This system will also help in evaluating attendance eligibility criteria of a student. The purpose of developing attendance management system is to computerized the tradition way of taking attendance and to generate the report automatically at the end of the session or in the between of the session.

Time Attendance System is software that helps organization for registering and tracking employee attendance. This system software eliminates paperwork and saves employees time calculation, validation, and re-keying payroll information. It may be integrated with existing payroll and human resource systems. As a result, employee working hours can be accurately tracked, which can be important in organizations, exceptions such as lateness, absence, overtime and others can be accurately tracked and reported.

According to Grella and Lampron (2005) organizations always aim to enhance its performance at the practical and the management parts, and systems becomes more complex year after the other. This is because of the incremental development in the nature of businesses to harmonize with the strategic plans for these organizations and its ability and willingness to improve.

Developing this system will provide improved and accuracy in monitoring, and reducing the time and efforts, which in turn will increase the work activity in the company and bring harmony between the nature of business with the strategic plans. In a study done by Tafour (2008), the needs of using Time and Attendance System come after they found many problems and mistakes in manual system beside the waste of time to enter the data manually to the payroll system.

2.3 Payroll Management System

One of the most important systems needed in the organization is a payroll management system which this system will be integrated with finance department and human resources. Payroll Management System is a system that features payroll process. This payroll system starts off from formation of the company the filling up the entire employee related information and the department that employee is recruited, assigning the employee salary structure. The pay slip is generated after the attendance is marked for that particular month. Payroll Management System can generate all the reports related to company, employee, attendance/leave, and payroll. Management of the company will get a clear view about the payroll and attendance of the employees through the MIS (Management Information System) reports.

Tear and Olsen (1992) provide an analysis to the main systems of any organization based on a hotel as an example. They mentioned that, any organization have six main systems, which are they human resources, operations, marketing, research and development, finance and administration, and they believe in that these systems must be exist in any organization.

For giving restricted access to the front end user and full access to the main Finance and HR authorized person it is possible to configure the software by the user side.

Payroll Management System gives your Management the flexibility of creating Salary Heads, Salary Formulae, Professional Tax Slab, creating own salary structures and finally simple click pay slip generation. (Bulwark Systems).

In a study done by KRONOS Corporation (2007) about the healthcare at the cross southern hospitals in New Zealand's about the time planning, the southern cross hospitals

in New Zealand apply the Time Attendance System in a more flexible and serious way than other organization by linking the human resource system with the payroll system and time attendance system. The needs of using Time Attendance System come after they found many problems and mistakes in manual system beside the waste of time to enter the data manually to the payroll system.

2.4 Database Management Systems

Database is typically a collection of data, which typically describes the activities of one or more related organizations. Database is needed to store data of the part-time employee and also to store payroll reports based on the attendance stored in the database systems.

Haris (2003) stated that Database Management System (DBMS) is a software that is designed to help assist in the maintaining and utilizing large collections of data. The purpose of the DBMS is to provide an environment that is both convenient and efficient to use in the retrieving and storing of the database information. In addition, these systems must provide for the safety of the information stored, despite system crashes or attempts at unauthorized access. Therefore the demand for the use of such a system is growing rapidly.

2.5 Disadvantages and Advantages of the Systems

Based on Jain, S.K., *et al.* on Attendance Management System, there are several weaknesses on conventional attendance management system which are:

- 1. Not User Friendly, the existing system is not user friendly because of the retrieval of data is very slow and data is not maintained efficiently,
- 2. Difficulty in report generating, it require more calculations to generate the report so it is generated at the end of the session and the employee not get a single chance to improve their attendance,
- 3. Manual control, all calculations to generate a report is done manually so there is greater chance of errors,

- Lots of paperwork, existing system requires lot of paper work. Loss of even a single register/record led to difficult situation because all the papers are needed to generate the reports,
- 5. Time consuming, Every work is done manually so we cannot generate report in the middle of the session or as per the requirement because it is very time consuming

By two studies conducted by Jain, S.K., *et al.* and Tafour (2008), there are several advantages that we can obtain by implementing those system such as:

- User Friendly, the proposed system is user friendly because the retrieval and storing of data is fast and data is maintained efficiently. Moreover the graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.
- 2. Reports are easily generated, easily get daily or weekly or monthly accurate reports and to manage or monitor the time worked by employees for the purpose of efficiently processing payroll.
- 3. Very less paper work, the proposed system requires very less paper work. All the data is feted into the computer immediately and reports can be generated through computers. Moreover work become very easy because there is no need to keep data on papers
- Computer operator control which will give an automated system in generating reports, computer operator control will be there so no chance of errors. Moreover storing and retrieving of information is easy. So work can be done speedily and in time
- 5. Reduce the cost of overtime which will enhance the work planning, enhancing the level of service or product and reducing the waste in time.

CHAPTER 3 METHODOLOGY

3.1 Methodology

The method used to complete this final year project are: survey, requirement definition, system and software design, implementation and unit testing, integration and system testing and operation and maintenance.. The sequence of the methodology can be described as follows:



Figure 3.1 Sequence of Methodology

3.2 **Requirements Definition**

The entire software requirements must be obtained within this phase, including the expected utility software users and software limitations. This information can usually be obtained through surveys, interviews or discussions. The information is analyzed to obtain the documentation the user needs to use at a later stage. The system should be able to store and describe the entire employee related information such as : Full name, Address (both Present and Permanent), Date of Birth, Phone Number, Email, Emergency Contact Number, Marital Status, Blood Type, ID / Passport No., Nationality.

3.3 System Design

The design of this application program includes several things, among others, modeling with UML (Unified Modeling Language), database programming with MySQL and be done with the Java language or Visual Basic.

This stage is performed prior to coding. This stage aims to give you an idea of what should be done within the system and how it looks on the interface. This stage helps in specifying the hardware and system requirements as well as defining the overall system architecture.

The design model will further refine the analysis model in the light of the actual implementation environment. It will explicitly define the interfaces of the objects and also the semantics of the operations. Additionally, the developer will decide how different issues such as DBMSs, programming language features and distribution will be handled (Jacobson et al. 2004).

3.4 Implementation

Within this stage of programming, the creating of software is diverse into small modules that will be incorporated within the next stage. Within this stage spot checks on the module also performed, whether it meets the demanded function or not.

Implementation is the process of organizing the data stored and integrating it with the processing strategy for testing. This step is the one of the steps in developing this project. After the system is tested, verified, validated, and evaluated then the system ready to be implemented and used by the users.

3.5 Integration & System Testing

This is the stage where the merging of the modules is made and testing shall be conducted to determine whether the software has been made in accordance with its design and there determines where there are errors or not. In order to ensure correctness of the result, the project will do several testing, verification, validation and evaluation. In this stage, the project will be tested. The testing of this project consists of verifying and validating the system. All the inputted data is expected to be the same with the expected output. Furthermore, verification consists of putting the system through a procedure to ensure that the system is right that the programs do what they are design to do.

In this step, all the rules will be rechecked to make sure that the conditions is match with the conditions from information obtained. Otherwise, validation involves testing the system to ensure it is the right system that it meets the expectation. In this project, the activity involve is validating the accuracy of the log in procedure that will be given to the end user. This step will make sure that the log in procedure is exactly the same as the data obtained from users and thus generate random question based on data stored in the particular users database. After all those process, then the system will be evaluated. There will be some improvement taken if the system has not exactly match with the procedure on what the system are designed to do.

3.6 Operation & Maintenance

This is the last stage in the model waterfall. Software that had been executed will undergo system maintenance. Maintenance includes the repairing of the system errors that was not found in the previous step. The implementation of a new system as an improvement will be considered as a new needs.

CHAPTER 4 RESULTS AND DISCUSSIONS

4.1 Introduction

This chapter will present the result of the project. It includes result and discussion of system requirements, activity diagram and data gained from the survey conducted with several company executives, trainees and also part-time employees from different country and companies.

4.2 **Results and Discussions**

Based on existing issues, then the following things are needed by the company in developing automated part-time payroll system based on attendance:

- Computerization to the list of attendance, attendance by an application which is the part-time employee as the user records their attendance by log in to the system.
- Accurate calculation of salaries, so the details of the salary received by an employee can know clearly and easily generate a report on employee payment.

Thus, to create this system, there are also minimum requirements of the computer software and hardware needed such as:

No.	Type of Software	Software Used
1.	Operating System	Windows 7 Home Premium
2.	Application's Software	Visual Studio 2010
4.	Database	MYSQL
5.	Documentation	Microsoft Office 2010

Table 4.1 Software Requirement

No.	Type of Hardware	Minimun Requirement
1.	Processor	Intel [®] Core TM 2 Duo
2.	RAM	1 GB
3.	Hard Disk	160 GB

Table 4.2 Hardware Requirement

4.2.1 Attendance Process and Payroll Process

Attendance process will be done through the control of the part-time employee data in or out. Employee absenteeism is influenced by several factors as follows:

- Hours of work carried out from 09.00 am and ended at 5.00 pm. The first hour after the scheduled return has not been considered overtime. If it exceeds then it must be considered overtime as part-time employee payment mostly based on hour.
- Part-time employees who came exceeding 08.00 pm will still be able to log in to record their attendance but, his or her working hour and payment count will be started from the time that they logged in to the system.
- Employees who leave early and get permission from the manager can still make an attendance and had no salary deductions.

4.2.2 Role Description of the System with Usecase Diagram

The automated part-time payroll system based on attendance will require to component as actors, user and administrator. Each actor had its own role that explained below: 1. User



Figure 4.1 User Usecase Diagram

Description :

User Action	System Reaction
Log In/Atttendance	Validating username and password, recording attendance time
View Profile	Viewing in data
View Payment	Automated Calculation of part-time employee salary based on attendance

 Table 4.3 User Usecase Description

2. Administrator





Description:

User Action	System Reaction
	Supervising an automated calculation of
Managing Employee Salary	part-time employee salary based on
	attendance
Employee Administration	Managing and supervising part-time
	employee attendance system
	Managing the automated part-time
System Configuration	payroll system based on attendance
	system
	Viewing an automated Calculation of
View Employee Salary	part-time employee salary based on
	attendance

Table 4.4 Administrator Usecase Description

4.2.3 Activity Diagram



Figure 4.3 Activity Diagram

4.2.4 Survey Result

Survey was conducted to get more information. This survey was conducted towards 17 respondents within several from several company executives, trainees and also part-time employees from different country and companies. Within the data gained from the survey, feedbacks are also gained from small interaction within the process. The type of survey is online based supported by google survey and the result of the survey on each question can be seen as follows:

1. Is there any part-time employee hired in your company?



Figure 4.4 Survey Results 1

2. Do you think an attendance system within the company is important, especially for part-time employee?



Figure 4.5 Survey Results 2



3. Do you have any part-time attendance system within your company?

Figure 4.6 Survey Results 3

4. Do you think a part-time employee attendance system which could show them their current working hours and payment is good?



Figure 4.7 Survey Results 4

5. If there is a part-time attendance system that is integrated with payroll system will it be a good system to be utilize by your company?



Figure 4.8 Survey Results 5

6. If there is a system that will automatically generate attendance and payroll report for the part-time employee, will it be good?



Figure 4.9 Survey Results 6

7. Do you think that it will be better to integrate between part-time employee profile database with attendance and payroll system?



Figure 4.10 Survey Results 7

8. Do you think it is good to allow user (part-time employee) to be able to view and edit their personal profile within this system?



Figure 4.11 Survey Results 8

9. Will you agree that automated part-time payroll system based on attendance that is integrating part-time employee attendance, part-time employee profile database and payroll system will be very helpful?



10. If this automated part-time payroll system based on attendance is existed, do you think it is better to have at least one administrator to control and manage the data?



Figure 4.13 Survey Results 10

11. If you have any comment or suggestion regarding to this system, please state below!

Most of the comments generated from the survey are positive comments towards this project. Some said, "Great idea should be able to help part timers earn their rightful amount of wage", "Looking forward for this project to be realized!", "Nice idea", and "Great idea should be able to help part timers earn their rightful amount of wage".

4.2.5 The System

This study has created the system interface designs like below as the basic concept of the system is like:



Figure 4.14 Sketch of Interface Design

The sketch of the interface is the basic idea of how this system should be fully functional. It is the basic idea on how to link each interface in the system and what is the purpose and the function of each interface made. As it is drawn in the sketch, the base function of the system is only 3 functions which are register, administrator log in and employee log in. Thus, these sketch has already developed as a full system as below.



Figure 4.15 Attendance Start-Up Interface

As the employee/user starting up this system, the interface as shown above will be shown. There are two options within the start-up interface which are "Log In" and "Register". In the interface shown above, the picture and name of the company can be changed as requested by the user company. The "Register" button will lead the user to registration interface such as shown below.

🖳 Register	_ 0 <mark></mark>
Please enter your name and dat	te of birth!
Full Name	
Date of Birth	•
Sex	•
Create User Name and Passwo	
User Name	
Password	
Confirm Password	
Please enter your details!	
Address	
Contact Number	
E-mail	
Emergency Contact Number	
Marital Status	
Blood Type	
Nationality	
ID / Passport Number	
Upload Picture	
	Submit Cancel

Figure 4.16 Registration Interface

Log In button are specially designed for the registered employee/user which, it will called the database to synchronize the employee/user username as password. Before the system synchronized the employee/user username and password, it will jump to another interface such as below.



Figure 4.17 Log In Interface

Username and password of the employee/user that has been inserted will be automatically synchronized by the system which the system will decide the next interface that will appears. If the employee/user is registered as an admin, admin interface will be showing up (Figure 4.19) and if the employee/user is registered as an employee, the interface of profile (Figure 4.21) will be appeared. If the employee/user forgot his or her password, another interface will be appeared like below. If the user forgot his or her password, only email address is required and the system will email his or her password.



Figure 4.18 Forgot Password



Figure 4.19 Administrator Main Menu

In this interface the employee/user that is registered as an admin could choose 4 main management systems which are: Manage Employee, Edit My Profile, Change Password and Log Out.

		UserDoB	UserSex	UserAddress		UserContactNumbe	UserEmail	UserEmergecyCont	UserMarital Status	UserBloodType	UserNationality	UserIDNumber
0 R	lachman Wintarto	10 December 19	Male	Kuala Lumpur	Ð	01114602085 🔒	rachmanflame@g0	0114602085	Single	AB	Indonesia	A 1040807
e Vi	ivayana Purnomo	5 February 1990 🔒	Female								Indonesia	
e R	lofans Beleam HD		Male	Kuala Lumpur	0						Indonesia	
0 Ih	nam Handianto	15 February 1990		Bengkulu								

Figure 4.20 Manage Employee

The interface shown in Figure 4.20 shows the database of the employee including the administrator. By this feature, the admin can choose each of every employee to manage their attendance, profile, and also payroll. The admin also have the special privileges to change password as it is requested by the employee. Within this feature search button also will be included to make the searching of certain employee become easier. The administrator will have full responsibility on this database.

Profile		
	I Name te of Bith x	
Contact Number E-mail	_	
Emergency Contact Num Marital Status		
Bood Type		
Nationality ID / Passport Number		
		Change Paseword
Vew Attendance.	View Payroll	Log Out

Figure 4.21 Profile Interface

If the employee/user that is registered as an employee, he or she will be lead to the profile interface like above with 4 types of menu such as: Change Password, View Attendance, View Payroll and Log Out.

View Payroll interface design is designed as below where its interface is a form of a printable payroll which is also been verified by chosen bank that is worked together with the user company. In this interface, the system will call the employee name and his or her payment for a month. This kind of payroll is flexible. It can be printed anytime as it records your printing time and date and the payroll itself will be reset to 0 (zero) each time the user execute the print command. From this interface, the user can also check for his or her attendance and also back to the previous interface and log out.

Payroll	
Pay To The Order Of:	Date Date
Pay Exactly:	
Two Hundred Dollars	\$ 200.00
05482 55448 654478 74392	R.R.B
Notification : This Payroll can only be printed after 30 days of working days or t Back View Attendance	y request to the system administrator! Print Log Out

Figure 4.22 Individual Payroll Report

The employee/user can also see their attendance record for the very beginning he or she enters the company. This attendance record will be recorded automatically when the employee/user logged in into this system.

View Attendance	
Full Name Last Time Logged In	Back
Date <u>12/11/2012</u> Time 19:51:39	View Payroll
Total Working Hours 160 Hours	Log Out

Figure 4.23 Attendance Interface

CHAPTER 5 CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

Attendance and payroll are vital function that has become the primary responsibility of a company. Payroll main function is to provide compensation to employees in the form of salary in exchange for their attendance and contribution to the company. Most of companies have the data of its permanent employee or its full time employee thus, the part time employee usually stepped aside. Therefore, it would be nice if there is an application that can cover it all, complete with calculations and database, especially for a part time employee that works in the company.

This study had proven that this kind of automated part-time payroll system based on attendance is good project to work on which solved 2 of the objectives assigned by the beginning of this project which is:

- An automated part time employee salary payroll based on their attendance has shifted everything from manual t automatic which this system automatically generate a report of part time employee payroll and attendance. Less paper works, and more secure data saving. Objective one complete.
- To store part time employee data and to increase the company business expenses efficiency through part time employee payment. The part time employee payment will not miss any single penny throughout the payment since it is calculated by a system. Each time after 30 days working hours, the part time employee could print their payroll and proceed to their payment to the designated bank.

This project also offers a differentiation among the other attendance system which this system allows the user to see his or her working time, their current status of payment.

Thus, the users are also given the privileges to edit or update their personal profile within the system. A lot of positive feedback was also gained during the study. As this project completed its 2 objectives, this project also gave some benefits directly and indirectly such as :

- 1. Display information in more interactive way
- 2. Removing paper works
- 3. Safer data storing
- 4. Automated attendance recording
- 5. Automated payroll generating
- 6. User Friendly
- 7. Indirectly increases the efficiency of company business expenses

5.2 Recommendation

There are several recommendations and suggestions that can be done in the future works. Interview shall be conducted with more company executives to seek the highest accuracy of the demands. A part of that, in the future the scope of research project can be expanded to a broader range, perhaps to permanent employee attendance system.

REFERENCES

Bulmark Systems

- Grella, B., & Lampron, F. (2005). Implementing an automated incentive plan. Retrieved 1511 12008, from http://www.platea~~.comlpdf/Workspa2n0 051 1. pdf
- Jacobson, I., & Ng , P.-W. (2004). Aspect-Oriented Software Development with Use Cases: Addison Wesley Professional.
- Jain, S. K., Joshi, U., Sharma, B. K. Attendance Management System. International School of Informatics and Management.
- Haris, M. H. B. (2003). Automated Payroll System. Mechatronics Industrial Electronics Kuittho.
- Harold C. Relyea. (2000). Papetwork Reduction Act Reauthorization and Government Information Management Issues [Electronic Version] from http://www.fas.org/sgp/crs/secrecy/RL30590.pdf
- Kronos. (2007). Kronos for Healthcare gives Southern Cross Hospitals the time to plan ahead. Retrieved 1911 12008, from http://www. . kronos.com/Aus/About/SouthernCross CS.PDF
- Rotchford, N. L. & Roberts, K.H. Part-time Workers as Missing Persons in Organizational Research. Academy of management Review.
- Tayfour, M. H. (2008). Developing Time and Attendance System. Universiti Utara Malaysia.
- Tear, R., & Olsen, M. (1992). International Hospitality Management: Corporate Strategy in Practice (Second Edition ed.): Longman Inc.

Wikipedia.com

www.rfidjournal.com/article/print/8573

APPENDIX

Final Year Project 1 Survey

This is a survey about automated part-time payroll system based on attendance. This survey was conducted to fill one of Final Year Project Proposal requirements in Universiti Teknologi PETRONAS, Malaysia. The objective of this survey is to understand the needs of attendance system within a company that is specified to their part-time employee.

Is there any part-time employee hired in your company?

0	Yes
0	No
0	Maybe

Do you think an attendance system within the company is important, especially for part-time employee?



Do you have any part-time attendance system within your company?

0	Yes
0	No
0	Maybe

Do you think a part-time employee attendance system which could show them their current working hours and payment is good?

C _{Yes} C _{No} Maybe

If there is a part-time attendance system that is integrated with payroll system will it be a good system to be utilize by your company?

0	Yes
0	No
0	Maybe

If there is a system that will automatically generate attendance and payroll report for the part-time employee, will it be good?

0	Yes
0	No
0	Maybe

Do you think that it will be better to integrate between part-time employee profile database with attendance and payroll system?

0	Yes
0	No
0	Maybe

Do you think it is good to allow user (part-time employee) to be able to view and edit their personal profile within this system?



Will you agree that automated part-time payroll system based on attendance that is integrating part-time employee attendance, part-time employee profile database and payroll system will be very helpful?



If this automated part-time payroll system based on attendance is existed, do you think it is better to have at least one administrator to control and manage the data?



If you have any comment or suggestion regarding to this system, please state below

