VILLAGE LIBRARY SYSTEM

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BORANG PENGESAHAN STATUS TESIS

JUDUL: VILLAGE LIBRARY SYSTEM (VLS)

SESI PENGAJIAN: 2014/2015

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VILLAGE LIBRARY SYSTEM (VLS)

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This report is submitted in partial fulfillment of the requirements for the Bachelor of Computer Science (Database Management)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY
UNIVERSITI TEKNIKAL MALAYSIA MELAKA 2016

DECLARATION

I hereby declare that this project report entitled

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SUPERVISOR : _____ Date:

(PROF. MADYA NORHAZIAH BINTI MD. SALLEH)

DEDICATION

To my beloved parents,

my supervisor and lectures

and also to all my friends.

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ABSTRACT

Village Library System (VLS) are developing to replace the current system that is used manually by human resource in National Library of Malaysia (PNM). In other words, it is aim to be computerized the manual system of the current system which is now using the Microsoft excel. This system is built for village library (PD) staff and will be monitored by administrator in PNM. For PD staff, it helps them to store contract record systematically. While for administrator, it makes it easier for them to check the contract information for each PD employee and monitor employees who are out of contract. VLS are develop using system development life cycle (SDLC). The waterfall model is choosing as the project methodology. The overall system is using the Hypertext Processor (PHP), Wamp Server and Oracle 11g Express Edition. Entity relational diagram (ERD) and data flow diagram (DFD) are the design that is designed to make the flow of the system more understandable. The purpose of the system is to reduce the response time for searching record, easier for employee to check their contract record, keep record more secure and decrease the use of papers (paperless). These systems are developing to solve the encountered problem. While completing the system, some strength and weaknesses are identified and the suggestions on how to enhance this system in future are given at the end of the project report.

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ABSTRAK

Sistem Perpustakaan Desa (VLS) ini dibangunkan bagi menggantikan sistem sedia ada yang digunakan secara manual oleh sumber manusia di Perpustakaan Negara Malaysia (PNM). Dalam erti kata lain, ia adalah bertujuan untuk mengkomputerkan sistem manual iaitu sistem semasa yang kini menggunakan Microsoft excel. Sistem ini dibina untuk kakitangan Perpustakaan Desa (PD) dan dipantau oleh administrator di PNM. Untuk kakitangan PD, ia membantu mereka untuk menyimpan rekod kontrak secara tersusun. Manakala bagi administrator, ia memudahkan mereka untuk memeriksa maklumat kontrak bagi setiap pekerja PD dan memantau pekerja yang sudah tamat kontrak. VLS dibina dengan menggunakan kitaran hayat pembangunan sistem (SDLC). Model air terjun dipilih sebagai metodologi projek. Sistem keseluruhan adalah menggunakan Pemproses Hiperteks (PHP), Wamp Server dan Oracle 11g Express Edition. Entiti hubungan rajah (ERD) dan rajah aliran data (DFD) adalah reka bentuk yang direka agar aliran sistem lebih mudah difahami. Tujuan sistem ini adalah untuk mengurangkan tindak balas masa untuk mencari rekod, memudahkan pekerja menyemak rekod kontrak mereka, menyimpan rekod lebih selamat dan mengurangkan penggunaan kertas (paperless). Sistem ini juga bertujuan untuk menyelesaikan masalah yang dihadapi. Semasa menyiapkan sistem ini, beberapa kekuatan dan kelemahan dikenal pasti dan beberapa cadangan untuk menambahbaik sistem ini pada masa akan datang diberi pada akhir laporan projek.

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LIST OF ABBREVIATIONS

VLS	-	Village Library System
PNM	-	Perpustakaan Negara Malaysia
PD	-	Perpustakaan Desa
ERD	-	Entity Relationship Diagram
DFD	-	Data Flow Diagram
DBMS	-	Database Management System
SDLC	-	System Development Life Cycle
DLC	-	Data Control Language
DDL	-	Data Definition Language
DML	-	Data Manipulation Language
GUI	-	Graphical User Interface
PHP	-	Hypertext Pre-processor
RAM	-	Random Access Memory
CPU	-	Control Processor Unit
UTP	-	Unshielded Twisted Pair
BPA	-	Bahagian Pengurusan Akademik
UTeM	-	Universiti Teknikal Malaysia Melaka

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CHAPTER I

INTRODUCTION

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1.1 PROJECT BACKGROUND

National Library of Malaysia (PNM) is the largest library in the country. Under the National Library there are many small libraries such as state public libraries, village library and knowledge centre. All three types of libraries is monitored by the national library. One of national library's objectives is preparing the action plan for short term and long term to offer a network of library and information services in the country.

Village library are small libraries which are located in areas of the countryside in the states of Malaysia. PNM will monitor the overall operations of village libraries, including payment of wages because the national library is responsible to pay salaries to staff at the village libraries.

All employees working in village libraries in the states are contract workers. Therefore, the national library should make preliminary calculations regarding their salaries. Data about the contract period of workers is stored in Microsoft Excel. And it makes it difficult for HR

department to find the old data. This resulted in a situation where a contract worker may still be paid a salary even though he is still not a worker anymore. This misunderstanding is because the profile recording contract workers is part of the HR and payroll is the financial unit. So, it's difficult to financial to trace whose contract will expire

1.2 PROBLEM STATEMENT

Hard to find which Village Library Salary System is developed based on some problem arising. First problem is because the data about the contract period of workers is stored in Microsoft Excel. And it makes it difficult for HR department to find the old data. In addition, there are many data that want to store to their references in the future.

Second problem is once there was a mistake where the PNM had paid salaries to employees in village libraries that have been out of contract. This misunderstanding is because the profile recording contract workers is part of the HR and payroll is the financial unit. So, it's difficult to financial to trace whose contract will expire.

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Furthermore, National library is unable to identify workers who have worked for a long time for promotion. HR should look at the record and calculate the time of contract workers have in the library.

Lastly, Worker's wages calculation is done by Microsoft excel. Admin needs to manually calculate salary of each employee who works in village libraries in the state.

1.3 OBJECTIVE

i. **To store the copies of contracts in a database for easy viewing by workers and HR.**

With database system, the copies of contract can be stored in database to allow the worker or HR to access.

ii. **To develop a systematic process in terms of preparing the data to facilitate the management of the national library to identify the employees who are still on contract and whose contract has expired at village libraries in the states.**

HR department can identify those who are still continuing the contract or who have already terminated the contract.

iii. **To produce a report that can identify workers who have worked the longest time in village libraries to help the HR to conduct promotions.**

System will calculate the total months of contract for each workers to know who has worked a long time to give the rewards.

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iv. **To calculate direct wages according to the contract workers.**

System will calculate the wages for every month if the contract is still active.

1.4 PROJECT SCOPE

There are two major scopes involved in the development of the Village Library Salary System which are the user and module scope. User scope focuses on the system's user and their roles while module scope determines the details of function that is categorized by each module.

1.4.1 User Scope

There are two users in Village Library Salary System which are the system HR department and contract worker. The HR department is in charge of managing the worker contract including the salary, leave and details of worker. On the other hand, the contract worker can view their personal details, contract and salary.

1.4.2 Modules Scope

i. Staff Module

The staff module will keep a record of all contract workers currently working or workers who worked before in the Village Library Salary System. The staff in HR Department also included in this module. These modules can be edit, update and store all details of staff in the Village Library.

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ii. Branch Module

The branch module will keep a record of all branches that have in Malaysia. Village Library is available in 14 states and one state may have four to five libraries.

iii. Leave Application Module

The leave application module will keep a record of all the leave form that applied from a staff. One contract worker will have a few days to give them holiday with the salary.

iv. Salary Module

The salary module will keep a record of all salaries for each contract worker. This salary will calculate for every month during the contract is continuing.

1.5 PROJECT SIGNIFICANCE

i. Improves Productivity, Reduces Manual Processes

In previous system operation, the staff often had to manually registration. The system will makes user easy for the worker and HR to check the amount of the salary, view the details and apply the leave.

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ii. Improve Data Storage Techniques

This system improves data storage techniques by using systematic and efficient system.

iii. Save Time

This system also will uses less of time for the accessing data or information about staff and their salary at the same time makes the process become faster.

iv. Reduce Use of Paper

By developing this system, the operation cost can be reduced for a long time period.

1.6 EXPECTED OUTPUT

i. HR can trace the worker whose contract will expire

Staff in HR department can trace the contract worker whose contract will expire to stop for giving the salary.

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ii. HR can trace the worker whose work for a long time

HR department can know how long a contract worker already worked for easily them give the promotion.

iii. HR and worker can know the total salary for every month

Each contract worker and admin (HR) can know the total salary of worker for every month that be calculated by system.

iv. HR can know which workers work in branch

HR can know which contract worker have work in branches.

v. Worker can apply the leave application by online

Staff in village library can apply leave by online through system and admin can give approval also through system.

1.7 CONCLUSION

Village Library Salary System is an efficient system to manage the salary and contract worker from all branches. This system will help HR department to calculate the salary for every months.

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CHAPTER II

PROJECT METHODOLOGY

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2.1 INTRODUCTION

A project methodology is a systematic way of performing research and system development work. Methodology can properly refer to the theoretical analysis of the methods appropriate to a field of study which helps developer to structure, plan, and control the process for developing a database project systematically.

2.2 PROJECT METHODOLOGY

To develop system efficiently, it is decided to use Agile model as methodology for this project. Agile methodology is an alternative to traditional project management, typically used in software development. It helps teams respond to unpredictability through incremental, iterative work cadences, known as sprints. Agile methodologies are an alternative to