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JUDUL: JATISYSCRM

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CATATAN: * Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM).

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JATISYSCRUM

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

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2008

DECLARATION

I hereby declare that this project report entitled
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is written by me and is my own effort and that no part has been plagiarizes without
citations.

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DEDICATION

To my beloved parents who always gave their courage and support. Also to all my siblings who always give stimulus and motivation, and all my colleagues. Thanks for all support.

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ABSTRACT

JatisysCRM is a web-based system that will be developed for the Jaticom staff use. The functions provided by this system are fully customized based on this organization's current flow of certain business activity and problem faced by the staff when using the manual process flow. The requirements of the system are fully collected from the staff of Jaticom who will be the user for this system. The development of this system will use the open source application as the customer needs. The business activity will be the main functionality of this system. There are several problems that become the factor to build the system such as miscommunication among staffs, unable to make back-up or recovery process, and unauthorized user or person can access the system. The system will be used Rational Unified Process (RUP) in order to help in gathering the requirement more easily. The phase of methodology are described in details in the chapter two. There are many advantages or benefits from the JatisysCRM which are the the system will increase the performance of the staffs greatly. Beside that, the system will overcome the problems that had been encountered by the traditional system. The system also can make the back-up or recovery process easily. The JatisysCRM is a system that will make the company especially Jaticom Sdn Bhd a base to expand their business to a higher stage of business and become huge in future. The system will reduce the service time for customer satisfaction. The system will increase the performance of the staffs indirectly ,and can increase the company's profit and reduce company's cost.

ABSTRAK

JatisysCRM adalah sebuah sistem berasaskan web yang akan dibangunkan untuk kegunaan pekerja syarikat Jaticom Sdn. Bhd. Semua modul yang akan dibangunkan adalah berdasarkan kepada aliran semasa proses yang melibatkan aktiviti perniagaan dan juga masalah yang dihadapi oleh pekerja ketika melakukan pelbagai tugas harian yang masih dilakukan secara manual. Semua keperluan bagi membangunkan sistem ini adalah diperoleh daripada pekerja-pekerja Jaticom Sdn. Bhd. yang juga akan menjadi pengguna sistem ini. Pembangunan sistem ini menggunakan aplikasi terbuka berdasarkan kepada permintaan pelanggan. Aktiviti-aktiviti perniagaan akan menjadi fungsi utama sistem ini. Terdapat pelbagai masalah yang dihadapi yang menjadi faktor kepada pembinaan sistem ini seperti masalah komunikasi di kalangan pekerja, ketidakbolehan membuat sistem sokongan dan proses pemulihan, dan pengguna yang tidak diiktiraf atau berkaitan boleh menggunakan sistem ini. Sistem ini akan menggunakan pendekatan metodologi rational Unified Process (RUP) di mana kaedah ini akan membuatkan proses mengambil informasi menjadi lebih mudah dan tersusun. Fasa metodologi ini akan diterangkan dengan lebih lanjut di dalam chapter dua. Terdapat banyak kelebihan daripada sistem ini seperti sistem ini akan meningkatkan potensi para pekerja. Selain itu, sistem ini juga akan mengatasi semua masalah yang di hadapi oleh sistem tradisional. Sistem ini juga boleh membuat proses sokongan dan pemulihan dengan mudah dan cepat. JatisysCRM ini adalah sistem di mana akan membuatkan syarikat khususnya Jaticom Sdn Bhd satu tapak supaya dapat mengembangkan perniagaan ke tahap yang lebih tinggi dan menjadi besar pada masa hadapan. Sistem ini juga akan mengurangkan masa perkhidmatan supaya dapat memuaskan hati pelanggan. Sistem ini juga dapat meningkatkan potensi para pekerja secara tidak langsung dan akan meningkatkan keuntungan syarikat dan mengurangkan kos syarikat.

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LIST OF ABBREVIATIONS

CRM	Customer Relationship Management
DO	Delivery Order
JATISYSCRM	Jaticom System Customer Relationship Management
MSPROJECT	Microsoft Project
MSWORD	Microsoft Word
OOAD	Object-Oriented Analysis and Design
PC	Personal Computer
PHP 5	Personal Home Page 5
PO	Purchase Order
RUP	Rational Unified Process
SDLC	System Development Life Cycle
SRS	Software Requirement Specification
SSADM	Structured Systems Analysis and Design Method
UML	Unified Modeling Language

CHAPTER I

INTRODUCTION

1.1 Project Background

JatisysCRM is a project that will be developed by the high market needs which provide many useful functions for Jaticom staff to do their own daily tasks or works. Jaticom has come up with very brilliant idea to overcome the problems that happen in that company. One of the problems is miscommunication among staffs. When a technical Administrator wants to monitor their technician's job or task, they usually have to ask them personally about their technician's task whether complete or under progress. It is quite possible for miscommunication occurred during monitoring process. In order to overcome this problem, JatisysCRM will be developed that contains technical reporting management which technical Administrator and technician can communicate about their task easily and quickly. If the technician encountered some problems, they can put a note about the problem for their technical Administrator.

This system will provide their user with certain functions according to their access level. The level of users is differentiating based on their position on the company. General Manager has been granted to be system Administrator and can fully access to the entire system. The system will communicate between customer and staff as shown as Figure 1.1.

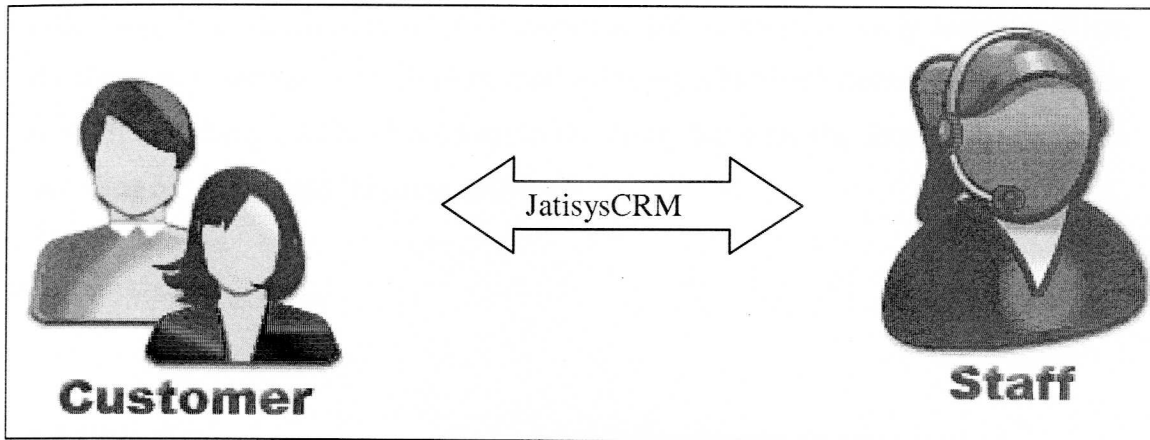


Figure1.1: JatisysCRM overview

1.2 Problem Statement

Miscommunication among staffs frequently occurred in the company. For example, when sales person requests purchase order from store keeper via telephone, the store keeper will ask about few details such as quotation number, customer name, and delivery date for the product. These details will be used to create purchase order. Sometimes, the store keeper forgets about the request of the purchase order. So the purchase order cannot be generated in request time.

It is one of the business strategies to generate report for monitoring process. The report that will be generated contains the important data such as delivery date, person in charge, and product list. From the report whether daily report, monthly report or annually report, these report are important in order to make business analysis for creating next strategy. Business analysis can be made based on the product, the fast moving product or slow moving product. If that product is fast moving product, the company must provide adequate amount of the product for their customer and it is vice-versa for the slow moving product.

Business is something that unpredictable. A business can be down today but it also can be bigger for the next day. Business can be exposed to threat such as robbery, misuse of power and also disaster. There are many transactions occurred in

a day and these transaction must be recorded and saved in a safety location. When the threat has come such as disaster, most of the data has been destroyed or cannot be used. If a back-up data has been kept in the safety location, the data can be retrieved and used for continuing business activity.

1.3 Objective

➤ **To provide management level and staff a platform to communicate.**

In a company, there are many departments that interact with each other in order to do some business activity. The interaction can be made by using some ways such as via telephone or via internet. The easiest way to interact between departments is using telephone or telecommunication media. But there is a new technology that can be implemented in order to interact between departments quickly and less cost instead of using telephone. By using the system, this new technology can be implemented can give benefit to company in order to cut off or reduce the cost and service time.

➤ **To generate report or to make business analysis easily.**

There are many transactions or business activity occurred in a day and involved many customers. By recording the customer pattern of product purchase, company can develop a move or strategy to capture the customer needs in future. The pattern is based on the duration from one period to another period that the customers come for purchasing the product. Beside that, company can identify the product which is fast moving or slow moving. Based on that information, company can manage their business wisely by ensure that the fast moving products are available in the store in most amount of quantity and the slow moving quantity are available in the least amount of quantity.

➤ **To make daily business transaction back-up easily and quickly.**

There are unpredictable situation such as fire, flood or theft incident that might be occurred during doing some business activity. These incidents will effect performance of the business and make some problems in future because all the business data has completely destroyed. By using the system, a back-up data can be created and store in the safe location or place. The back-up data can be retrieved back when it is needed and can be used to continue business activity as nothing happen before.

➤ **To reduce miscommunication problem among staffs and management.**

Miscommunication is a common problems that encountered by many company every way in a world. Several way of solution has been made in order to overcome the problem. Jaticom has come up with its solution to overcome the problem by using online system that provided a medium to communicate between management level and other staff or between departments. The system will reduce the communication time and less cost than the other communication method such as telephone. More over with the system, the productivity and quality of staffs will increase without their notice.

➤ **To make the system that will be used or accessed by an authorized user.**

The system has been provided some security elements that will secure the content of the system from outsider or the user that not has the right to access it. The users such as staff will access the system via authentication process by entering username and password. If the authentication is valid, then the user are available to access the system to do particular job based on the access level of the user. If not, the system will not give permission to the user to access the system in order to protect the content of the system because it is private and confidential.

1.4 Scope

Target user:

- a) System Administrator.
- b) Account Administrator.
- c) Sales Person.
- d) Technical Administrator.
- e) Store keeper.

There are several modules that are to be developed:

a) Administrator

There are three types of users which are staffs, customers, and suppliers. Each of these users plays their own role. Administrator is responsible for controlling and monitoring the activity of each user. Administrator can add new person whether staffs, customers or suppliers. For the staffs, Administrator can set their access level based on their position such as sales person only can access the function that can be used for completing their job and not granted to access the function that not related to their job. Administrator also can delete the existing person such as staffs, customers, and suppliers. So this person must be prevented from access the system. Administrator also can view the user details such as telephone number, address and full name.

b) Account

There are some types of account which are invoice and cash bill. In the new invoice form, Account Administrator can view the customer name, the product that has been delivered, and the grand total for the product. From the cash bill function, the Account Administrator can monitor all the daily sales that occurred in a day. From the daily sales, Account Administrator will make some analysis about the pattern of the customer and the market need. With this analysis result, the company can construct new strategy to conquer the market. Account Administrator also can monitor the stock balance of the product after daily sales.

c) Store

There are some types of functions that occurred in the store which are product info, purchase order, product received, and delivery order. In the product info, store keeper can manage the product that available in the store such as view the image of the product, full product name, its specification, its quantity, and also its price. The price can be divided into three types which are dealer price, cash price and term price. For creating purchase order, store keeper must select all the products that wanted by the sales person. Then, store keeper must select the supplier's name and also supplier's officer. When receiving the products, store keeper will enter the received products in the product received form. After that, store keeper will enter the quantity of the received products in the function. Store keeper can make the delivery order form by choosing the delivery order function. In the new delivery order, store keeper can enter the quantity amount that has been ordered by customer.

d) Sales.

There are some types of functions such as quotation, and sales order. In the quotation form, sales person must create new quotation then select the customer name. In the sales order form, sales person can view the sales order information.

e) Technical.

There are some types of functions in the technical module which are equipments, and warranty DO. In the equipments functions, there can divided into two parts which are incomplete and complete reports. When the equipment is delivering to supplier for repairing, a delivery order will be created. Then, the delivery information will display in the warranty DO list. All the details about the equipments such equipment name, quantity, problems description, delivery date and supplier name are recorded in the warranty DO list. After the delivery, the equipment's status is repairing. When the equipment has returns back from supplier and conforms it is in good condition, the status will change into complete. The receiving date will recorded for reverence.

f) Task.

In the task module, user can view the task information such as task name, task date, priority, and status that has been assigned to them or task that has been assigned to other staff. User can create new task by fill in the task registration form such as task name, assigned staff and priority level for the task. There are four types of priority level such as info, normal, urgent, and very urgent. Staff can make the daily back-up of the data storage by using daily back-up function. Once the user has clicked the daily back-up function, the data storage is ready to save in certain location or safe location.

1.5 Project Significance

The system will give a good impact to the users especially the staffs because it will increase the productivity and the quality of themselves. The system will reduce the communication time among staffs and management level or service time among customer and management level. The system also more efficient, reliable and faster than other communication method especially telephone and can become asset for company in order to increase the profit and reduce the cost.

Many companies have their own ways such as report management or business analysis process to conquer the market needs. The analysis will be developed based on the pattern of the customer that comes to buy or purchase some products or the product that be the bestseller in the market lately. The company can come up with the brilliant strategy to increase their sales in order to increase the company profit at all.

The unpredictable situation such as fire incidents that will occur during doing the business activity can be solved or overcame by using the support function. The back-up data that has been provided in the system will restore the data that useful for doing the business activity. The function has reduced the cost of maintenance that

will spend much funds and effect in order to restore or retrieve the data that destroyed during the unpredictable incident.

The system has provided the adequate security elements in order to protect the content of the system that which is private and confidential properties. So, only authorized user can access the system through the authentication process. The user will use their username and password before accessing the system. If the system validates the authentication process, the user will be given the permission to access the system. If not, the system will not give the permission to access it. The system will protect the customer information instead of the company information and it will increase the customer's reliability to the company. The company will get benefit by obtain more regular customer that will increase the profit of the company.

1.6 Expected Output

JatisysCRM will be a platform between staff and company, and among the staff and the management. This system will be a pioneer or base project before expanding it into bigger project, more functions and large scope.

1.7 Conclusion

The system that will be developed will give a major effect to the company and also to their customer which is provided some functionality that allow customer to contact with the company's management indirectly.

The traditional system encounters many problems including miscommunication, inefficiency, ineffective, and did not have back-up. Miscommunication occurred among staffs and it will cause ineffective and inefficiency environment. So the production will be decreased. Back-up data is

needed because many transactions occurred in a day and this transaction important for company and also for getting customer trust.

The system that will be developed consists of some functions that will overcome the problem that traditional system has been encountered. The new system will provide new platform for the staffs to overcome the miscommunication problem. The back-up function has been created in order to make daily back-up for the company during emergency period.

The new system will increase the productivity of each staffs in order to increase the quality of service that will be offered. The new platform will reduce the miscommunication problem among staffs. The effectiveness and the efficiency of staffs also will be increased without their concern and it will indirectly increase the profit of the company.

In the next chapter, the details description about literature review and project methodology will be explained. There is some comparison between traditional manual method and the to-be developed method that will be briefly described in the next chapter.

CHAPTER II

LITERATURE REVIEW AND METHODOLOGY

2.1 Introduction

In this chapter, a literature review and project methodology will be explained. Literature review will act as a summary and evaluation of previous research or work on the system that will be developed, while the project methodology will give an explanation about selected methodology or approach used in the project.

A literature review will give the researcher an understanding about other project on same topic that has been developed by other people. By doing the research, it will also help the researcher to see the result of other related studies. There are three basic types of source that are general references, primary source and secondary source. While a project methodology is a way to identify on how to complete the project. There are some methods that can be used, such as quantitative method as forecasting modeling, qualitative method as analysis of interview, or combine both of this method. In software perspective, there are some methodology that can be used that includes the Object Oriented Method (OOAD), System Development Life Cycle (SDLC), and Data Flow Diagram (SSADM).

JatisysCRM will use the Rational Unified Process (RUP) as system methodology because the system is real-time system and the RUP is the most