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Development of Web Based Quotation Price Information System at PT Toyota Boshoku Indonesia

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***Abstract* - PT Totoya Boshoku is a company engaged in manufacturing that produces Interiors and Seats, etc. PT Toyota Boshoku acts as a supplier that sells the products it makes to several regular customers. In making an offer from the seller to the buyer there is a quotation document still using a simple information system or manual calculation with a method that will certainly take a lot of time. Errors in inputting also often occur because many files must be opened to enter the results of process calculations into it.**
This study aims to try the implementation of a new quotation system, which is a website-based system designed with a neat and easy-to-understand user interface so that it will be much more efficient in its use. This system is open source using the PHP framework called Laravel for easier and faster results

Keywords- Development Web-base, Quatation Price information System, PHP

I. INTRODUCTION

Information systems are methods of processing work information that employ systems based on defined management principles. The presence of an information system can make it easier for someone to get the information they need. The advantages of information system technology which are currently growing rapidly include speed in obtaining information, ease of transactions, and flexibility in obtaining information.

PT Toyota Boshoku Indonesia is a company that produces car interiors such as car seats, door trim, carpets, car chassis and engines. PT Toyota Boshoku functions as a supplier, selling the products it manufactures to various customers. When a vendor makes an offer to a buyer, PT Toyota Boshoku includes certain information about the product and selling price provided to the buyer.

Customer quotations are finalized quarterly. PT Toyota Boshoku Indonesia receives a price list from the marketing party, and the time required for the formation of a product. Report results are often provided late, and calculating results are sometimes wrong and imprecise. The development of a quotation system via the internet is a new approach

II. LITERATURE STUDY

A. Information System

An information system is any organized combination of people, hardware, software, communications networks, and resources that collects, transforms, and generates information in an organization [3]. Information system is a human and computer resource framework that is coordinated to transform inputs into outputs in order to achieve certain goals [4].

B. Web-Based Software

As technology develops, the options for developing software are increasingly varied, one of which is developing web-based software, or what we call web applications. A web application is an application that uses browser technology to run applications and is accessed via a computer network[4]. This web-based software generally provides various information needed without exception, websites are often used as platforms for buying and selling facilities, etc. and this website can be used without having to install.

C. Quotation in PT Toyota Boshoku Indonesia

Quotation is a business offer made by sellers for buyers who are interested in buying goods at specific prices according to certain terms and conditions. Quotation is a reply from the seller to the prospective buyer which contains detailed information about the buyer's request detailed in the form of a document. In a business, prospective buyers and sellers will negotiate an item after both parties agree, then there will be an agreement.

III. SYSTEM ANALYSIS

A. System Overview

The process of making offer documents (quotation) organized by the company is still confusing, and the company still uses manual calculations such as calculations made in the Microsoft Office Excel application. The problem is that employees have to open quotation documents from each customer to calculate the price every month period, and sometimes input the price result from the amount of the nominal can be wrong. Employees should be careful when entering a price value in each Excel chart for which they want to record the amount, and thoroughness in filling in the numbers entered in the calculations is required. This problem must be addressed by breaking new ground in overcoming it.

B. Method

In this study, the use of the Rapid application development (RAD) method is to facilitate the creation and planning of new systems[1]. System development method is an automated activity, method, best practice and tools that stakeholders use to develop and continually improve the system information and software. Information system development is the preparation of a system to replace the old system as a whole or improve the system that already exists[2]. The following in Figure 1.5.1 below will illustrate the 4 stages of RAD, along with an explanation for each stage.

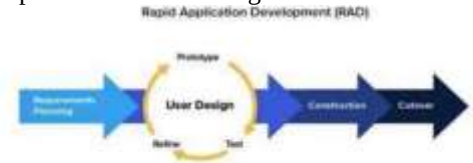


Figure 1.1Rapid Application Development

C. Use Case Diagram

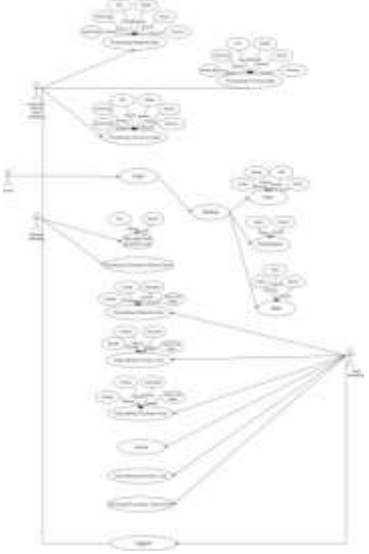
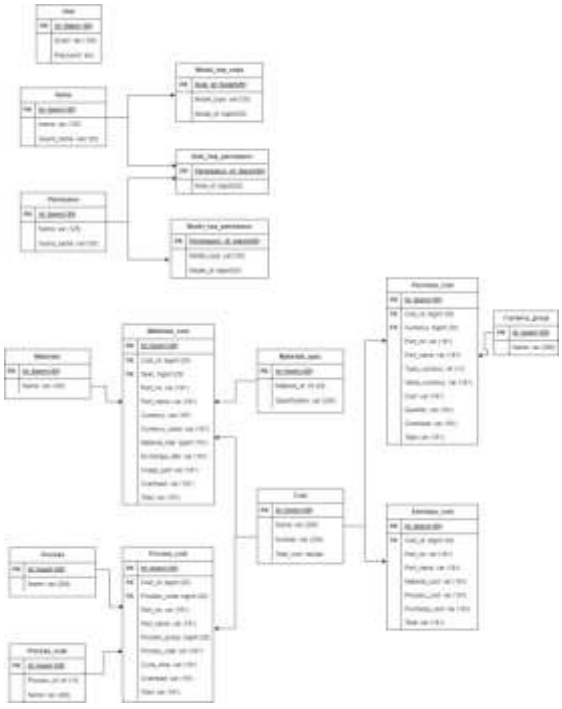


Figure 3.1 Use Case Diagram

IV. SYSTEM DESIGN

A. Entity Database Diagram

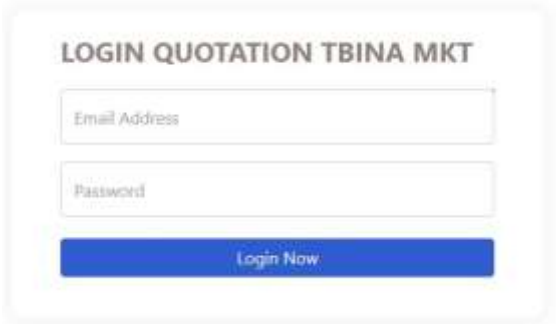


Gambar 4.1 Entity relationship diagram

V. SYSTEM IMPLEMENTATION

A. User Interface

1.Login Page



To display features on the website. The user must first log in by entering the email and password provided

2. Create New User

To add a new user the Admin will create a user, password and role.

3. Create permission

To add permissions, the Admin must fill in a new permission name which later the permission name will be the name for each user's access rights

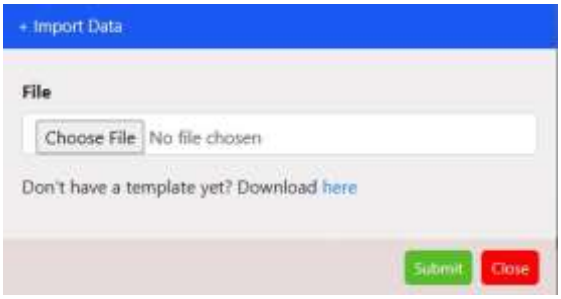
4. Create Role

To add a role, the Admin must fill in the name of the role. After role name is entered, the name will automatically appear on the role page.

5. Detail Role

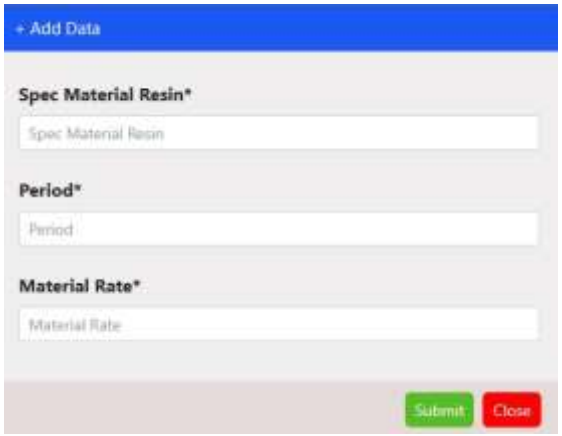
To view as well as grant access rights (permission list) that was created to the selected role name

6. Import Data



Before the data can be seen in the material, process and currency data tables, the user will first enter data through the "import data" feature, then the data will be downloaded and then entered into the "choose data" submit feature then the data will be visible.

7. Insert Data



This feature is provided if there is data that cannot be entered into the table or wants to add data, the user must fill in the "insert data" form.

8. Create Cost TMMIN

Fill in the “part name” and “part no” in the insert feature, used for calculating.

9. Material Cost Calculation

Fill in each stage of the process in "material cost" to bring up the total of each stage carried out, the "add to list table" feature is also provided to bring up the "material cost" calculation data into the "material cost list".

10. Process Cost Calculation

Fill in each stage of the process in "process cost" to bring up the total of each stage carried out, an "add to list table" feature is also provided to bring up "process cost" calculation data into the "process cost list".

11. Purchase Cost Calculation

Fill in each stage of the process in "purchase cost" to bring up the total of each stage carried out, the "add to list table" feature is also provided to bring up "purchase cost" calculation data into the "list purchase cost".

12. Summary Cost

At this stage all the totals for each process carried out starting from the material, process and purchase stages will appear and enter the "summary cost" stage which will display the final results of each process carried out after which the results can be downloaded in excel form.

VI. SYSTEM TESTING

System testing is an essential component of software development that ensures a software product's quality and dependability. It entails testing the overall system rather than individual components to ensure that it meets the requirements and works as

intended. System testing is the final stage in checking the system is working properly and making sure that the system meets predetermined requirements, which means the system can be used by the user.

VII. CONCLUSION AND FUTURE WORK

A. Conclusion

This web-based bidding tool is intended to help PT Toyota Boshoku, particularly in the field of marketing, in calculating quotations quickly and easily. This website provides access rights that will be given by the administrator to each user so that they can use the website. This website provides data import and calculation

features, as well as other supporting features, to help users avoid mistakes when inputting the prices of goods sold and shorten the time needed to download the final results of this website in excel file form.

B. Future Work

Several changes must be made in the future to improve the development of this website:

- Adding a feature that can see who last visited the website.
- Add data feature so customer can also see the process.
- Add access so that it can be used in other branches of the company.

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