

USE OF WEB SERVICE WITH SOAP PROTOCOL FOR A DATA COMMUNICATION SYSTEM FOR E- MENU AND POS SYSTEM ON RESTAURANT

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Abstract— Given the development of advanced technology, the system used on the majority of restaurants, especially those using conventional systems and menus that are used by the media felt the paper was no longer effective for use in the restaurant business. Therefore, we are interested to make the E-menu that integrates with POS systems which SOAP protocol implemented as data carrier for device to device, server to device and vice versa communication that are expected to complement or replace the system used by the restaurant.

Keywords— E-Menu , Menu, Point of Sales, Restaurant, SOAP

I. INTRODUCTION

RESTAURANT is a place that provides food and drinks for its customers to get the money - not including catering business type or catering. Restaurant (Marsum, 1994) is a place or building which is commercially organized to hold good service to all customers, whether by food or beverages (1). Food and beverages are generally provided on-site, but is now evolving towards service delivery order.

Generally, the restaurant uses a menu that aims to facilitate the customers to decide what to order. The menu is a list of foods that are written in a card, paper, or other media which can be selected and ordered by the customer. But along with the technology, the use of the menu has been deemed no longer effective. To improve the performance of the menu, so we try to make the E-Menu is implemented on a tablet pc.formats for your particular conference..

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II. PROCEDURE FOR PAPER SUBMISSION

System that we make an e-menus and POS system that will handle food ordering systems, delivery orders, and payment by the customer. This system will be used by the working order:

1. Waiter gives ArchTab on customers who come and give tutorials for first-time customers using ArchTab.
2. Thereafter the customer can immediately begin ordering the desired menu directly from their table.
3. The menu is ordered by customers from ArchTab will soon be submitted to the server in charge of receiving data wirelessly from ArchTab, which will continue to miss out on the kitchen in order to be cooked and the order data will also be noted on the POS system in order to do the recording material foods that are unused, the recording of sales made and the process of counting bills / bill.
4. When the moment a customer needs something, without looking waiter, a customer can call the waiter from the tablet.
5. After the dishes are cooked and delivered, the customer can request a bill direct from his table without the need to find a waiter took the bill.

Once payment is made and confirmed the data from the sales will soon be updated and restaurant owners can directly access the reports in real-time.

The methodology used in this study the E-menu system and POS are:

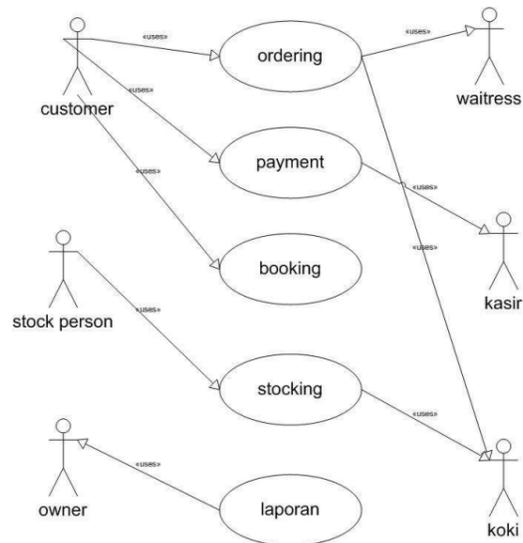
- Design Standard, using Roger S. Pressman Style (2)
- Notation Design using UML 2.0

And our research done with the steps - the steps work as follows:

- Perform data collection by conducting research in the form of interviews
- Perform data analysis (software requirement analysis)
- Create screen design and the design of the system according to the results of the analysis
- Applying the screen design into the device
- Development
- Evaluation System
- Implementation System

And for system development, we use Java programming language that uses the Android API (Application Programming Interface), MySQL for databases, and SOAP (Simple Object Access Protocol) as a carrier of data from server to device and vice versa

Here are the main design of the system that we've made:



Use case E-Menu

III. SUMMARY

Making E-Menu application is intended to address the problems that exist in a variety of restaurants and cafes, as efficiency is needed at every restaurant on the process of ordering food, recording orders, payments process and others. E-Menu is made based on Android should be effective and efficient at the existing restaurant system, such as decreasing levels of human error which may occur during food recording can be minimized with the use of our E-Menu, the level of service will increase the speed and can make the customer satisfied in the event of service restaurants. Given the technological developments that have been growing rapidly, many restaurants that use smart devices as part of their restaurant. But from our survey results directly to the restaurant, smart devices are used only limited to the ordering process and the recording of the order menu. And with the use of existing systems, there are still inefficient process on the restaurant's system, such as queues inputting orders on PoS terminals, the level of services remains low speed and error rates are still high. Given that there are restaurants and cafes are still few who use the tablet as a restaurant menu system and POS system, which developed the E-Menu can cover the deficiencies that exist in systems that have been implemented now, because the E-Menu and our POS was SOAP implemented (Simple Object Access Protocol) to transfer data from the server into tablets, or vice versa. Thus, the speed and effectiveness E-Menu will be able to replace the existing system in the future.

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