Point of Sales at *Akar Cafe* Surabaya

[1]Fendy Yusuf, [2]Much. Adam, [3]Wahyu Novita Anggraini, [4]Rudianto

Computer Engineering, NSC Polytechnic Surabaya
[1]juonecuk008@gmail.com, [2] muchadam22@gmail.com, [3]wnovitaanggraini@yahoo.com

Abstract

The Point of Sales for *Akar Cafe* information system is a web-based information system that makes it easy for *Akar Cafe* owners and workers to run sales transactions and data reports. This system is made with PHP programming language and MySQL database for data storage.
The system can check log in, display orders, manage users, send and print orders that are ready stock in the kitchen, print a purchase note, and display sales reports. This application facilitates customer service and can shorten the sales transaction process compared to manual systems

Keywords : *Cafe*, Information Systems, PHP, *MySQL*

I. INTRODUCTION

The development of technology nowadays creates such a sophisticated and easy situation. *Akar Cafe* is one of the cafes in Surabaya with a comfortable and pleasant style for the youth who need to spend the time.

Unfortunately, *Akar Cafe* still does manual sales routines, and at last the workers need more time in doing their works. In addition, inaccuracies in the recorded data often happen then makes work becomes more difficult and not optimal. By the existance of Point of Sales System, it is expected to simplify the work at *Akar Cafe* and shorten the transaction process.

II. DISCUSSION

A. Design

This design provides a general description and at the same time becomes the first step in making a Point of Sales information system for *Akar Cafe*.

1. Manual System

In designing this Point of Sales information system for *Akar Cafe*, a manual description of the system (flowchart) is needed as a graphical representation of business processes so that it is easier to understand.
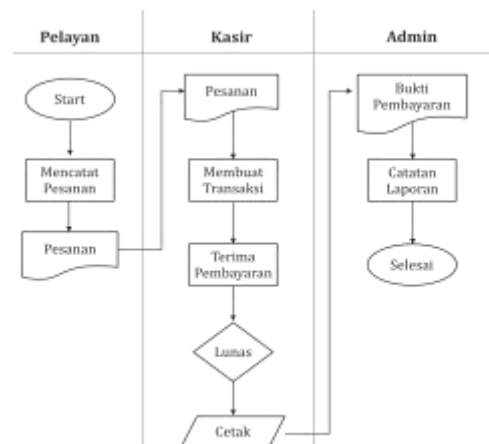
Picture 1. *Manual* System
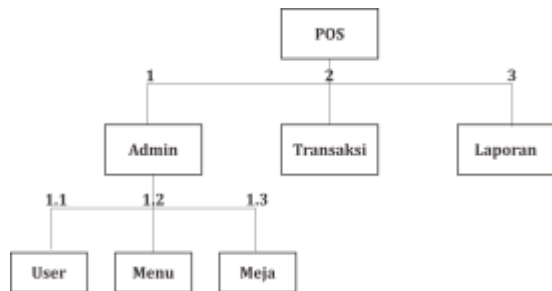
2. Context Diagram

Context diagram is the highest level of DFD (Data Flow Diagram) which describes all inputs to a system or output from the system.


Picture 2. Context Diagram

3. Level Diagram

Level diagrams can also be called tiered diagrams, because this diagram illustrates the flow of the program based on its level of function.
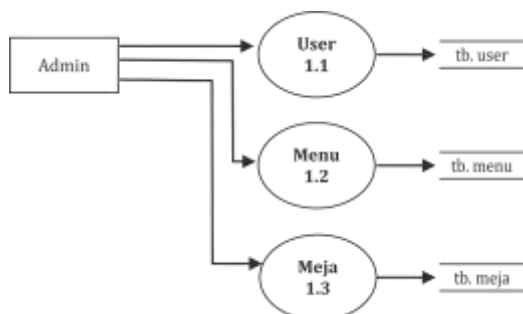
Picture 3. Level Diagram Data Flow Diagram (DFD)

From Data Flow Diagrams (DFD) we can find out the flow of data in a structured system. Data flow diagrams are divided into 2 levels; level 1 and level 2.
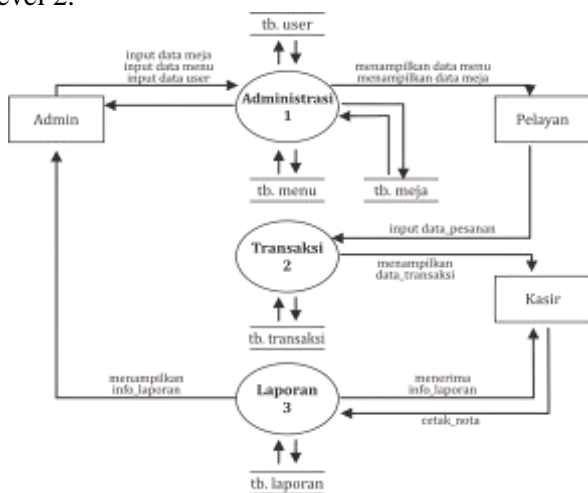
Picture 4. DFD Level 1

Picture 5. DFD Level 2

4. *Entity Relation Diagram* (ERD)

ERD is a model to explain the relationship between data in a database based on object databases that are related to each other.

Picture 6. ERD

5. Table Data Design

The concept of this information system involves all the functions of each *Akar Cafe* worker, including ordering functions, payment transactions, and financial statements. By this concept, the author makes a database as a data storage medium, and there are 4 tables, they are:

a. Report Table

Store sales transaction data that displays sales recap information.

Table 1. Report

No	Field	Data Type	Size	Note
1	*Id*_meja	*Int*	8	FK
2	*Id_user*	*Int*	8	FK
3	*Id*_transaksi	*Text*	8	FK
4	*Id*_laporan	*Text*	8	PK (*auto inc*)

b. User Table

User table Stores sales transaction data that displays sales recap information.

Table 2.*User*

No	Field	Data Type	Size	Note
1	*Id_user*	*Int*	8	PK (*auto inc*)
2	Nama	*Text*		
3	*Level*	*Text*		
4	*Username*	*Text*		
5	*Password*	*Text*		

c. Transaction Table

Table transaction is used to store purchase transaction data listed on the purchase receipt.

Table 3. Transaction

No	Field	Data Type	Size	Note
1	*Id*_transaksi	*Text*		PK (*auto inc*)
2	Tgl transaksi	*Text*		
3	*Id*_user	*Int*	8	FK
4	*Id*_meja	*Int*	8	FK

d. *Meja* Table (desk table)

Meja table stores customer table data, contains table code and number.

Table 4. *Meja*

No	Field	Data Type	Size	Note
1	*Id*_meja	*Int*	8	PK (*auto inc*)
2	Nama_meja	*Text*		

e. Food Menu Table

Food Menu Table stores food menu data.

Table 5. Food Menu

No	Field	Data Type	Size	Note
1	*Id*_makanan	*Int*	8	PK (*auto inc*)
2	Gambar	*Text*		
3	Nama item	*Text*		
4	Harga	*Text*		
5	Keterangan	*Text*		

III. IMPLEMENTATION

Based on the system design, a user interface finally created. The results of the implementation of the system design above are as follows:

A. *Login*

Login Contains *Username, Password, and Select User Level* fields that must be filled in to enter the system.

Picture 7. *Log In* Page Display

B. *User*

User is divided into three levels that match the function of each worker, including the level of *Administrator, Cashier,* and *Waiter.*

1. Administrator

Administrator page contains the functions of admin, consisting of a dashboard menu, financial reports, add user, add food, and add a table.

a. Dashboard Menu

Dashboard is the menu that first appears when entering the Administrator user page.
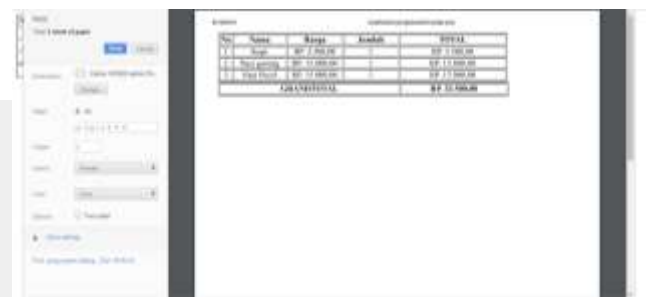

Picture 8. Dashboard Display on Administrator user

(1) *Laporan Keuangan* (Financial Report Menu)

Laporan Keuangan menu is used to display and print financial report based on a certain period. The following is an example of a financial report display in a period of 1 transaction in 1 day.

Picture 9. Display of *Laporan Keuangan* Menu

Picture 10. *Print Laporan Keuangan* Page Display

(2) *Tambah Menu (*Add Menu)

Tambah Menu is used to add new items to the system, consisting of *Tambah User* (add users), *Tambah Makanan* (add Food), and *Tambah Meja* (add Tables).

(a)   *Tambah User (*Add User)

Picture 11. *Tambah User* Menu Display on Admin
Page

Picture 12. *Tambah User* dialog box display *Tambah Makanan* (Add Food)

Picture 13. *Tambah Makanan* Menu display on
Admin Page

Picture 14. *Tambah Makanan* Dialog Box Display

(b)   *Tambah Meja* (Add Table)

Picture 15. *Tambah Meja* menu display on *Admin
Page*

Picture 16. *Tambah Meja* dialog box display

2.   *Kasir* (Cashier)
      Kasir user page has cashier functions, consist of *Transaksi* (transaction menu) dan *Keuangan.*(financial menu).

(1)   *Transaksi* Menu (transaction menu)
      On *Transaksi* (Transaction menu) there is a list of tables that contain transactions on each table. The transaction is then printed for making a purchase note.
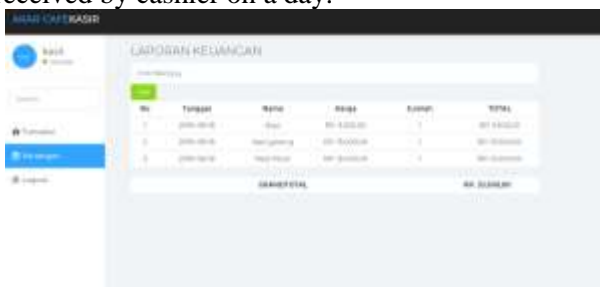

Picture 17. *Transaksi* menu display

Picture 18. *Transaksi Meja 1* Menu Display

Picture 19. C*etak Nota Pembelian Page Display*
(Print Purchase Note)

(2) Keuangan Menu (Financial Menu)

Keuangan contains financial report for sales received by cashier on a day.

Picture 20. Display of *Laporan Keuangan* page
(financial report page)

3. *Pelayan user* (Waiter user)

At this user, the waiter uses android media so that he can work to serve customers from table to table quickly. In the *Pelayan* user page, there is a Home menu that lists order tables. At one of the selected tables, a ready stock food menu will appear which the waiter uses to make a list of orders. *Menu makanan* (food menu) that is input will come out in *Keranjang* (the Basket column) as a list of orders. Then the waiter makes a print order list and will be received by the kitchen, so that the list of orders is used as a reference for the chef to prepare the requested order.

Picture 21. Home Page Menu

Picture 22. Food Menu list

Display *and* order list Display

Picture 23. Display of *Cetak Daftar Pesanan* page
(Print order list page)

IV.   **CONCLUSION AND SUGGESTIONS**

A.   Conclusion

Based on the discussion conducted by the author at *Akar Café* regarding web-based Point of Sales, it can be concluded that:

1. The web-based Point of Sales system facilitates sales transactions and makes it easier for buyers to choose food and beverage menus at *Akar Cafe*.
2. Point of Sales system at *Akar Cafe* can shorten the work process of sales transactions with more accurate data accuracy, compared to the previous ones that still use manual systems.
3. The creation of the *Akar Cafe* Point of Sales information system has been successfully tested.

B.   Suggestions

This system is certainly not perfect, to develop the Point of Sales system, the author has several ways, as follows:

1. Provide critics and suggestions for users of Point of Sales users on the website.
2. Update the web display so that users can feel more comfortable and at last keep using it.
3. 3. Add variations in ordering food and beverage menus as attractive as possible.
4. Improving application features according to Cafe's needs in the future, such as adding customer desk features and being able to add orders without having to reprint the proof of payment.

V. REFERENCES

Andri, K. 2008. *Perancangan Sistem Informasi. Gava Media*. Yogyakarta.

Arief, R. 2005. *Pengantar Ilmu Perhotelan & Restoran. Graha Ilmu*. Yogyakarta.

Bunafit, N. 2008. *Aplikasi Pemrograman Web Dinamis Dengan PHP dan MySQL*. Gava Media, Yogyakarta.

Henry. 2010. *Membangun Aplikasi Point of Sale dengan VB 6.0, MySQL dan PHP*. Jakarta: PT Elex Mediakomputindo.

Jogiyanto, H. 1990. *Analisis dan Disain Sistem Informasi*. Penerbit Andi Offset. Yogyakarta.

Kadir, A. 2008. *Tuntunan Praktis Belajar Database Menggunakan MySQL*. CV Andi Offset. Yogyakarta.

MADCOMS. 2011. *Aplikasi web database dengan dreamweaver dan PHP – MySQL*. Yogyakarta penerbit Andi.

O'Brien & Marakas. 2009. *Management Information Systems*. Ninth Edition. New York: McGraw-Hill/Irwin.

Rahman, H. 2013. *Mengenal Program Point Of Sales (POS)*. http://www.blognyapuye.blogspot.com/2013/02/mengenal-program-pointof-sales-pos.html, diakses 17 Juli 2013.

Rainer and Cegielski. 2011. *Introduction to Information Systems*. 3rd Edition. USA: Wiley.

Rokhman, A. 2012. *Pengaruh Keputusan Investasi, Keputusan Pendanaan, dan Kebijakan Dividen Terhadap Nilai Perusahaan*. Diponegoro Journal of Accounting. Vol. (1) No. (2) 2012.

Sugiarto. 1996. *Pengantar Industri Akomodasi dan Restoran*. Jakarta : Gramedia Pustaka Utama.

Supriyanto, A. 2009. *Potret Pemenuhan Hak atas Pendidikan dan perumahan di era Otonomi Daerah*. Yogyakarta: PUSHAM UII.