Designing a Food Menu Catalog at a Web-Based Tonga Coffee Shop

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ARTICLE INFO

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ABSTRACT

The development of science and technology, especially computer technology, has grown rapidly and has had a significant impact in various fields such as offices, education, and others. Computers as a data processing tool have become an important element in supporting operations in various sectors. An organization or company needs competent human resources to realize its goals, including in achieving business profits. These human resources play a role in executing the main tasks of the organization or company. However, the processing of food menu sales catalogs that are still carried out manually by employees often causes errors in the delivery of menu details, leading to errors in processing consumer orders. In addition, the control of available food and beverage stocks is also not optimal, and there are difficulties in making food and beverage order transaction reports, resulting in unclear details of consumer visits. To overcome this problem, a web-based food menu catalog system was designed at the Tonga Coffee Shop. This system aims to facilitate the explanation of the Tonga Coffee menu to consumers, improve work efficiency in the Tonga Coffee Shop environment, and introduce food menus to the community, especially in the city of Medan. It is hoped that with this application system, the work process will become easier, the performance of employees in serving customers will increase, and the introduction of food menus at Tonga Coffee Shop will be more effective.

INTRODUCTION

The development of science and technology is currently taking place very rapidly, especially in the field of computer technology, including in the food and beverage industry. The use of technology in this field not only helps to improve operational efficiency, but also improves the quality of service to customers. One of the technology implementations that is increasingly in demand is the web-based menu catalog system, which allows customers to access information about food menus easily and interactively. Computers have become a very important data processing tool and are widely used in various fields such as offices, education, and other sectors. In an organization or company, the existence of competent human resources is indispensable to support the achievement of organizational goals, including in achieving business profits. These human resources play a role in executing the main tasks in the organization or company.

Kedai Kopi Tonga, as one of the businesses engaged in the culinary sector in the city of Medan, currently still relies on manual methods in managing food menu catalogs. The process of delivering menu information that is still carried out directly by employees often causes errors in the delivery of menu details, which can have an impact on customer dissatisfaction. In addition, the management of food and beverage stocks in this shop is also not well integrated, making it difficult to control inventory and compile transaction reports accurately.

Seeing these problems, there is a need for innovation in the menu catalog management system at the Tonga Coffee Shop. Designing a web-based food menu catalog is a solution that is expected to overcome existing obstacles. With this system, consumers can easily access information related to the food menu offered, stock can be managed more effectively, and transaction reports can be compiled more accurately. In addition, this system is also expected to improve employee performance in serving customers and introducing available menus to the wider community.

This research aims to design and implement a web-based food menu catalog system in Tonga Coffee Shop. This system is expected to facilitate the operational process in the store, increase customer satisfaction,

and support better business management. With this system, Tonga Coffee Shop can adapt to the demands of the times and compete more competitively in the culinary industry.

METHOD

To obtain accurate and clear data in this study, it is necessary to collect data both basic data and additional data. There are several methods used by researchers in collecting data:

a. Observation
    The researcher made direct observations at the tonga coffee shop to find out the existing obstacles and tried to find solutions to overcome these obstacles.
b. Interview
    In this method, the researcher conducts interviews or questions and answers to the owner or those who have authority in managing the tonga coffee shop.
c. Study Literature
    To support researchers in developing systems from the data that has been obtained, researchers also look for reference materials either from books, journals or other literature sources that researchers can use to develop this research.

RESULTS AND DISCUSSION

Proposed System Design

By analyzing and monitoring the ongoing system, the design of the food menu catalog information system at the Tonga Coffee Shop in Medan City was made. With this information system, it can help consumers in finding food menus in tonga coffee shops and help companies to market their products widely through the web site. This system is designed using PHP programming language and MySQL database, it is hoped that the system that will be designed can help companies in marketing their products and make it easier for customers to search for products at Tonga Coffee Shop.

Context Diagram

Context Diagram is the highest level in data flow diagrams (DFDs), used to describe globally about systems designed from information systems. The system that will be designed comprehensively is a clear description of the scope of discussion where the medium is in the form of a diagram context. The context diagram process at the Tonga Coffee Shop, where the food menu catalog information system has three entities that have links in the catalog information system.
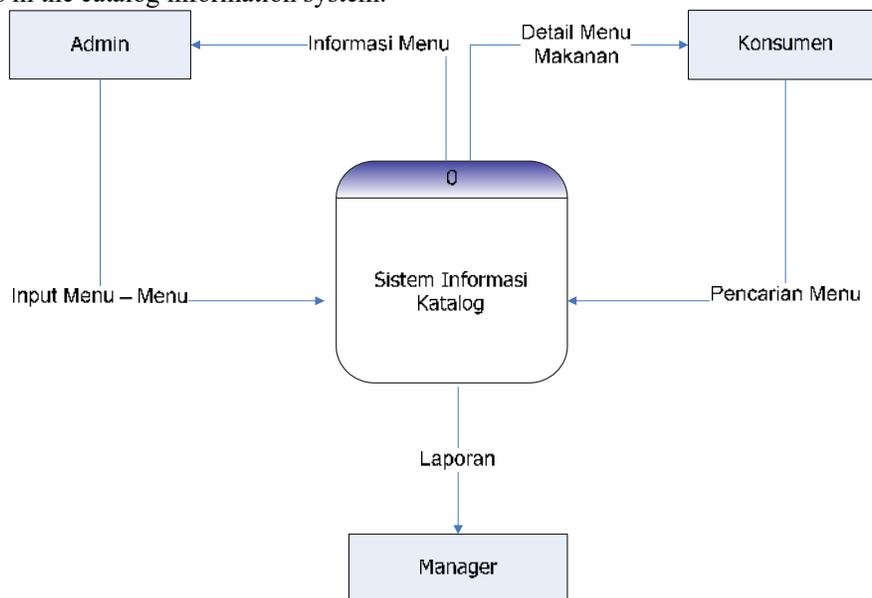
Figure 1. Context Diagram

Figure 1 is a representation of the Catalog Information System which functions as a central system to manage food menu information at Tonga Coffee Shop. This diagram illustrates the interaction between the system and the external entities that relate to it. Here's an explanation of each element in the context diagram:

a. Admin

The admin is responsible for entering and managing food menu data into the system. The admin inputs information related to the food menu such as menu name, description, price, and availability. This menu information is then stored in the Catalog Information System.

b. Consumer

Consumers interact with the system to search and view details of the food menu available at Tonga Coffee Shop. Consumers can access the menu-related information they want through the interface provided by the system.

c. Manager

Managers have access to view reports generated by the system. These reports can include information on food stock, sales, and consumer visits. This information assists managers in making operational and strategic decisions.

Data Flow Diagram (DFD) Level 1

The representation of DFD Level 1 is as follows:
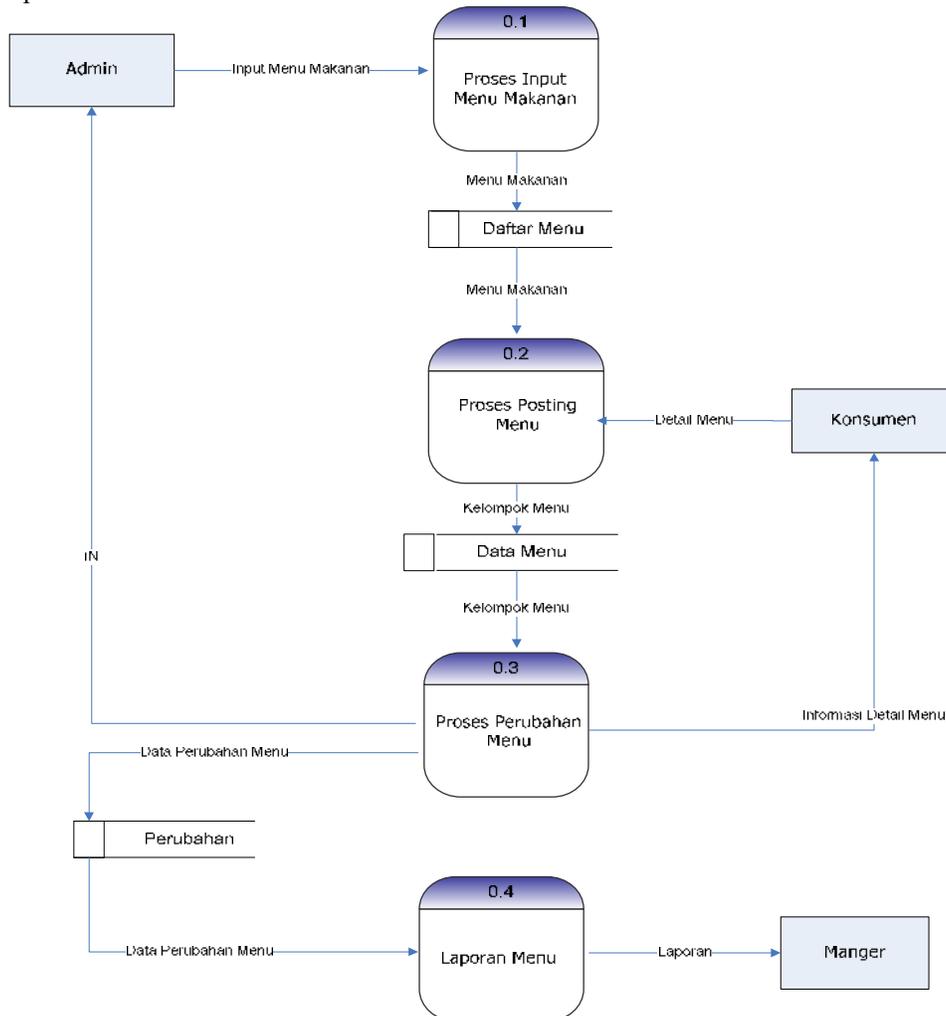
Figure 2. DFD Level 1

Figure 2 is the Data Flow Diagram (DFD) Level 1, which is a detail of the main processes in the web-based food catalog information system at Kedai Kopi Tonga. This diagram provides more detailed information about the flow of data between external entities and internal processes in the system.

a. Process 0.1: Food Menu Input
    Input: Admin enters food menu data into the system.
    Output: The data input by the Admin will be saved as a Menu List containing complete information about the food menu. After the process is complete, the food menu data will be generated and saved as a Menu List.

b. Process 0.2: Post Menu
    Input: Menu data that has been input in the previous process.
    Output: The system processes food menu data and groups it into Menu Groups, and generates Menu Details to display to consumers. Once processed, the data is presented to consumers as a Menu Detail that they can view.

c. Process 0.3: Menu Changes
    Input: Admin makes changes to menu data that has been posted.
    Output: The system updates existing menu data based on changes made. After processing, the updated menu detail information will be presented back to consumers.

d. Process 0.4: Menu Report
    Input: Data on menu changes that have been made and other transaction data.
    Output: The system generates a menu report that will be provided to the manager. After processing, the system generates a report that is submitted to the manager.

Designing Proposed Inter-Table Relationships

The display of the relationships between the tables of the proposed system can be seen in the following figure 3:
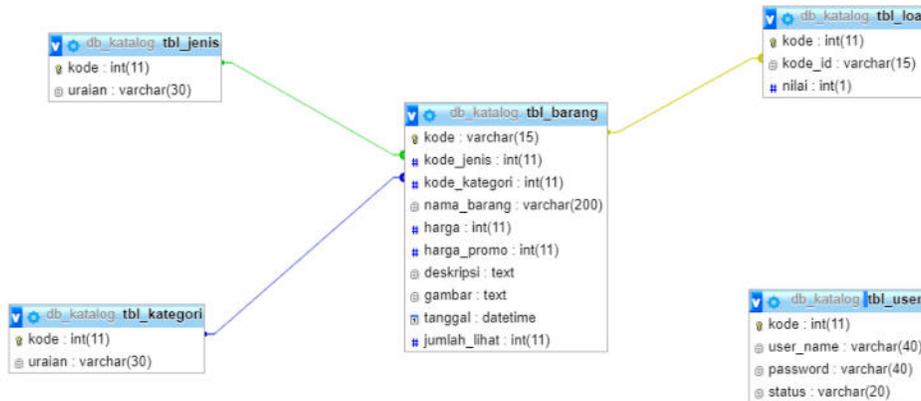
Figure 3. Database relationships

Figure 3 explains that tbl_jenis table has a relationship with the tbl_barang table through a code column. The relationship shows that each item in tbl_barang has a type determined by the kode_jenis, which refers to the code in the tbl_jenis. tbl_kategori table is related to tbl_barang table through code columns. A relationship shows that each item in tbl_barang has a category defined by the kode_kategori, which refers to the code in the tbl_kategori. Table tbl_barang is the main table that stores information about items (food menus). This table has a kode_jenis and kode_kategori that functions as a foreign key that refers to the tbl_jenis and tbl_kategori tables. This table is also correlated with tbl_load by code, which indicates that each item can have a related value in the tbl_load table. tbl_load table has a relationship with tbl_barang through kode_id columns that refer to the code in tbl_barang. This table stores additional information related to the item, such as the appraisal amount or purchase amount. While the user table does not have a direct relationship with the other tables in the relationship. Where this table stores the data of users who access the system.

Progran Display Results

1. Login page display

   This form serves as the admin login display in the catalog.
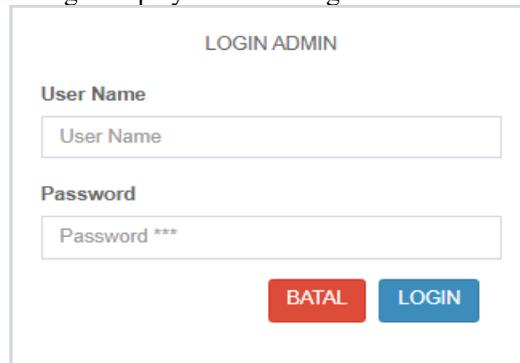
Figure 4. Login page view

    In figure 4, it can be seen that the appearance of the form is the display of the admin login form which functions to access the catalog page, where in the form there are two inputs, namely username which functions to enter the username and password input which functions to enter the password then there are two buttons, namely the cancel button to cancel the login process and the login button which functions to forward to the admin page.

2. Admin Main Menu Display

    After an admin successfully enters the username and password correctly, the admin will be directed to the main page. Where on this main page it is fun to add, change and delete food menus. The main page display can be seen in the following figure 5.
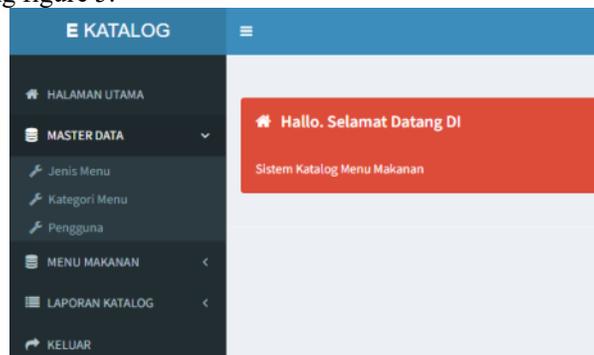
Figure 5. Admin main menu page view

3. Page Display Menu Type

    This page serves to manage menu types within the catalog system. In the form, there are two other buttons, namely the delete button to delete the list of menu types and the edit button which functions to change the menu name in case of an error during input. The page type display can be seen in the following figure 6.
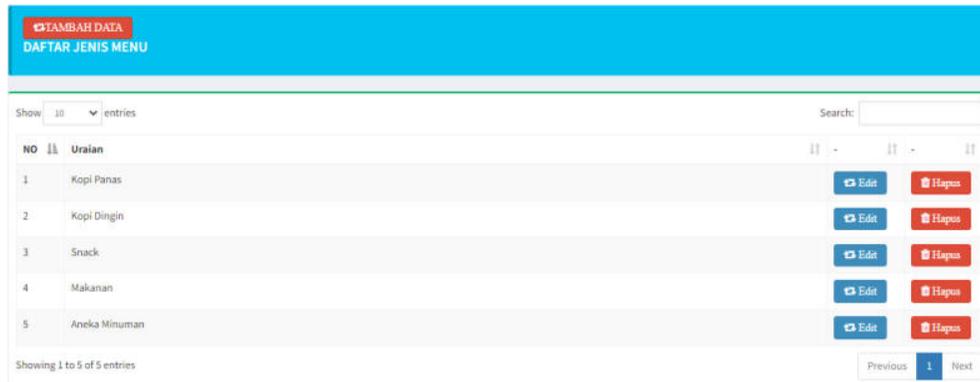
Figure 6. Menu type page view

4. Menu Category Page Display

This page serves to manage menu categories in the catalog system. In the form, there are two other buttons, namely the delete button to delete the list of menu types and the edit button which functions to change the menu name in case of an error during input. The display of the type page can be seen in the following figure 7.

Figure 7.: Menu category page view

5. User   Input Page Display

On this page an admin can add other users who have access to the catalog. It can be seen that on this page there are three buttons, namely the add button to add new users, the update button to change user data, and the delete button to remove user access from the catalog system. The user input page display can be seen in the following figure 8.
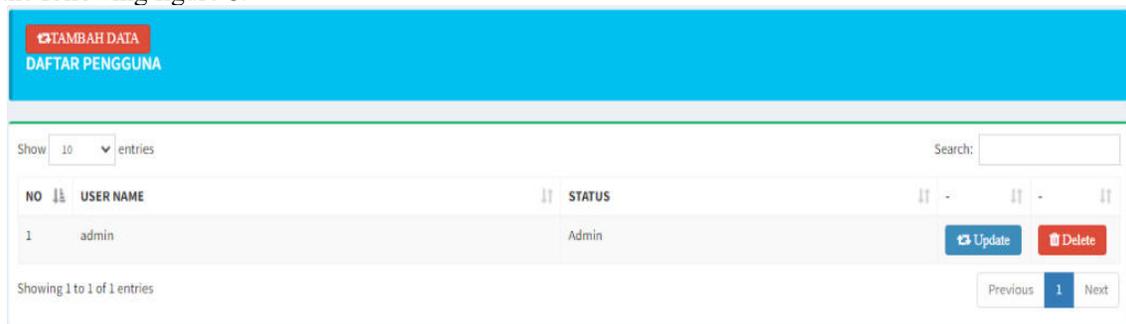
Figure 8. User input page view

6.   Food Menu Page Display

This page serves to manage all the menus available in the catalog system. On the page, a list of menus and prices and prices will be displayed if there are any promos available. On the page, there are two buttons, namely edit, which functions to edit or make changes to the menu list, and the delete button functions to

Figure 9. Menu list page view

7. Page View Add Menu

This page serves to add menus that will be available on the menu list page. On this menu add page, there are several things that must be completed by the admin, namely the menu name, a brief description of the menu, choosing the type of menu, choosing a menu category, entering the price, and the promo price if available. Then there are two buttons, namely the cancel button to cancel the process and the save button to save the menu which will then be displayed on the menu display page. The appearance of the add menu page can be seen in the following figure 10.

Figure 10. Page view add menu

8. Sales Report Page Display

This page serves as the system output to the manager as a menu report available in the catalog. In the report, it will be displayed how much total sales and stock are still available, so it will be easier for a manager to manage income and expenses from the business. In the report form, you can also filter by menu type, category and date. The report page can be seen in the following figure 11.

16/7/2019   KATALOG - ADMIN

LAPORAN MENU

NO	KODE MENU	NAMA MENU	HARGA	HARGA PROMO	STOK	KATEGORI	JENIS
1	MN201907011	Leng Hong Kien	Rp. 20,000	Rp. 15,000	5	Jus Kueni	Snack
2	MN201907010	Kopi Hitam Dingin	Rp. 15,000	Rp. 12,000	4	Nasi Goren	Minuman
3	MN201907009	Cappucino	Rp. 12,000	Rp. 10,000	5	Nasi Padang	Minuman
4	MN201907008	Kopi Hitam	Rp. 15,000	Rp. 12,000	16	Nasi Padang	Minuman
5	MN201907007	Dimsum Ayam	Rp. 50,000	Rp. 40,000	11	Jus Kueni	Makanan
6	MN201907006	Jus Jeruk	Rp. 50,000	Rp. 70,000	8	Jus Kueni	Minuman
7	MN201907005	Risol	Rp. 20,000	Rp. 15,000	7	Jus Kueni	Makanan
8	MN201907004	snacks	Rp. 30,000	Rp. 40,000	6	Jus Kueni	Minuman
9	MN201907003	Nasi Goreng Telur	Rp. 20,000	Rp. 30,000	6	Jus Kueni	Minuman
10	MN201907002	MAKANAN NASI GORENG	Rp. 70,000	Rp. 90,000	3	Nasi Padang	Makanan
11	MN201907001	KUE LAPIS	Rp. 9,000,000	Rp. 9,000,000	11	Jus Kueni	Minuman

Figure 11. Sales report page

9. Catalog Visitor Display Page

This page serves to display a list of available menus to catalog visitors. On this page, visitors can also see the prices of each available menu and can make menu requests directly from the catalog system. So that it will make it easier for visitors to place orders. The display of catalog visitors can be seen in the following figure 12.
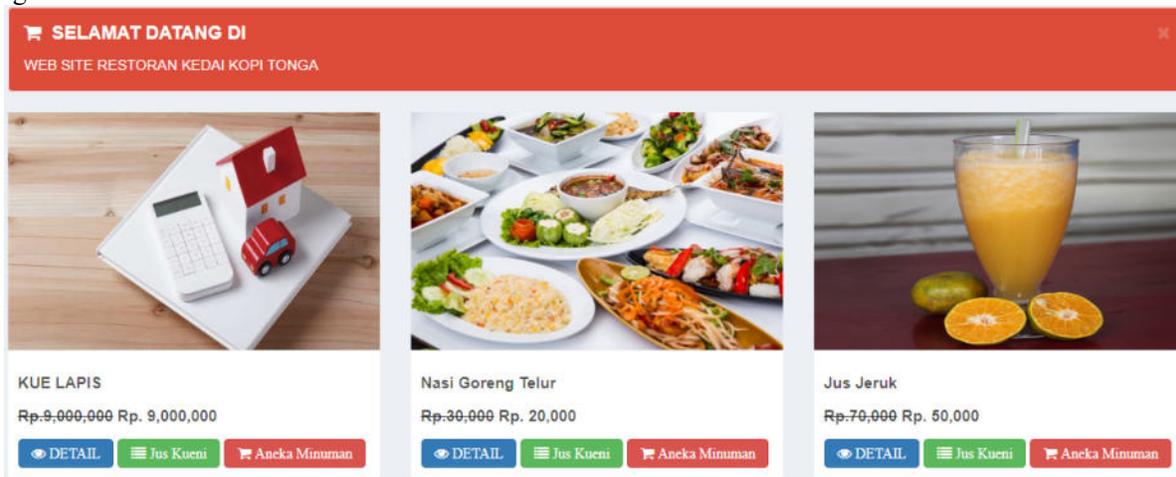
Figure 12. Catalog visitor view page

The advantages of the proposed system include: Can help companies in marketing their products widely to the community, It can make it easier for customers to find food menus quickly, Providing detailed information to customers so that all product descriptions / food menus can be accessed through the web site and Make it easier for customers to find food menus. Meanwhile, the weaknesses of the proposed system include: This catalog system is only a web site, There is no feedbeek about the product/food menu between the admin and the customer and Automatic database backups cannot be done through the catalog system.

CONCLUSION

With the application of the web-based food catalog design system at the tonga coffee shop can be processed quickly and well in terms of customer service and can be quickly known the food menus at the

tongah coffee shop by customers. With the development of the application using the Web programming language, by using the food menu catalog design system at this web-based Tonga coffee shop, the public can easily find out the types of food menus available at the Tonga coffee shop quickly and accurately and can help the company, namely the employee part in serving customers.

REFERENCES

Pratama A, Rusliyawati R. Analisis Dan Perancangan Sistem Informasi Persediaan Barang Berbasis Web. J Teknol Dan Sist Inf. 2023;4(2):114-120.

Yanto H. Sistem Informasi Administrasi Café & Resto Berbasis Web. J Teknol Dan Sist Inf Bisnis. 2022;4(1):116-121.

Bu'ulolo, K., & Rajagukguk, D. M. (2023). Value Information System Design Web Based Academic At Triseta Education. JITA (Journal of Information Technology and Accounting), 6(02), 33-38.

Sitorus, E. S., Rajagukguk, D. M., & Lumbanbatu, M. J. (2022). Web-Based Information System Of Sales And Purchase Of Msme Products In The Sidorejo Hilir Village Office. Jurnal Komputer Indonesia (Ju-Komi), 1(01), 1-6.

Adawiyah R, Supriatna AD, Setiawan R. Pengembangan Aplikasi Katalog Elektronik Barbershop Berbasis Web. J Algoritm. 2020;17(1):52-59.

Daeli CS, Setiawan Panjaitan E, Yunis R. Hospital Enterprise Architecture Design Using EA3 Cube Framework. J Infokum. 2022;10(5):440-446. http://infor.seaninstitute.org/index.php/infokum/index

Atqiya FF. Perancangan Sistem Informarsi Penerimaan Kas Pada Madrasah Tsanawiyah Persis 60 Katapang Menggunakan PHP dan MySQL. Published online 2019.

Ramadan D. Implementasi Crm Operasional Pada Sistem Informasi Lebmaga Pendidikan Dan Pelatihan Sea Darma Kecamatan Darma Kabupaten Kuningan. NUANSA Inform. 2016;10(2).

Jogiyanto HM. Analisis Dan Desain (Sistem Informasi Pendekatan Terstruktur Teori Dan Praktek Aplikasi Bisnis). Penerbit Andi; 2017.

Tanjung, R. Y., & Rajagukguk, D. M. (2023). Online Registration Information System at Imelda Medan Kindergarten/PAUD. Pascal: Journal of Computer Science and Informatics, 1(01), 23-28.

Awalia S& dkk. Sistem Informasi Manajemen: Tujuan Sistem Informasi Manajemen.; 2022.