

UTILIZATION OF WEB INFORMATION SYSTEMS IN RECORDING FINANCIAL CASH FLOWS (Case Study: Eno Foto Copy)

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Abstract:

Cash flow management is the activity of recording the inflow and outflow of cash. Good financial records can support the business path taken. Fierce market competition and increasingly sophisticated technological developments have made a number of business actors make their best efforts to fix their businesses. Eno photo copy is one of the UMKM which is engaged in printing. However, the system used still uses a manual system, especially in managing cash inflows and outflows. The purpose of this research is to design a cash flow management information system at Eno Foto copy. The writing of this final project uses a qualitative approach, an approach that tries to understand phenomena in their natural setting and context in which the researcher does not attempt to manipulate the observed phenomena using a case study approach, namely research on data that has been collected through literature studies, observations, and documented by the author, then further analyzed and processed based on the theory that has been studied. The results of this study are that the system created makes the management of cash inflows and outflows more efficient, effective, organized and safer because they are in the application database and become a reference for decision making in terms of cash disbursements for Eno Foto Copy. This can be seen from the existence of elements of an adequate and needed cash flow management system so that the objectives of the cash flow management system in Eno Foto Copy can be achieved.

Keywords — **cash flow, eno foto copy, management, systems information**

I. INTRODUCTION

The rapid advancement in technology presents various types of systems that can be easily used by the public. Sophisticated systems can trigger a shift for some manual work that must be switched to computerized. By changing the manualization

system to a computerized system, the information obtained will be easier so that the work becomes faster, on time and accurate [1].

The intense market competition has made a number of business actors do their best to fix their businesses so that they can continue to survive and develop, as well as the management of company

finances that must be controlled properly and accurately so that it requires companies to use accounting information systems for every type of business.

Good financial records can support businesses in determining the business path taken in various conditions, through a computerized process it is hoped that the processed data will make information more useful for its users and ensure its validity so that financial reports are created as the form of output expected by business actors[2].

The basic requirement that makes it necessary to have a system is for convenience In delivering information, data availability and decision making, because the development of a business, it will face more complex problems [3].

Management of cash is important because, Management of Cash Flows is the core of an effort to sustain life, both in the short and long term, and will continue to be a challenge for MSMEs. [4].

Eno Photo Copy is one of the SME businesses in the photocopy printing industry that handles photocopying, printing, binding services to banner printing. In their business activities, they rely on regular customers such as governments, offices and educational institutions in printing books or work reports.

II. RESEARCH METHOD

A. Data Collection Method

1. Literature Study

Literature study is carried out by reading and studying reference books related to the problem under study to obtain the information needed, used as a theoretical basis in carrying out research and writing reports.

2. Documentation

Documentation is used for data collection which will be needed in the research process.

3. Observation

Observations are made by observing how the current business processes are running at Eno Foto Copy from the purchase of raw materials and supplies of stationery to sales and payments by customers.

B. Research Method

The research method used is qualitative research. Qualitative research is a method that focuses on in-depth research, This method is used to examine the conditions of natural objects. Therefore, the use of qualitative methods in research can result in a more comprehensive study of a phenomenon.

III. DESIGN ANALYSIS

A. Analysis of Current Process

Proses The business process that runs on Eno Foto Copy starts from the process of selling transactions for services or goods until money saving procedure.

1. Workers are ready to serve customers.
2. Customers come directly to the store to order services and goods or for regular customers

place orders for services and goods by telephone.

3. Workers serve services or prepare goods ordered.
4. After the service process is complete, the worker creates a payment receipt for the transaction manually, which contains details of the ordered goods and the total price to be paid.
5. Customers can directly pay for orders to workers and take orders or for regular customers there are two choices, namely goods taken at the store or goods delivered to the customer's place.
6. If the customer still asks for the order to be delivered, the worker will deliver the ordered goods and pay the customer at the place of the customer.
7. After payment is received, the worker provides a receipt for payment.
8. Paying money for ordering services or goods received from customers is put into a storage drawer.

B. Problem Analysis

Alternative development strategies are obtained through the SWOT Matrix by formulating strategies based on a combination of internal and external factors. The SWOT matrix aims to provide alternative main strategies including S-O (Strength-Opportunity), W-O (Weakness-Opportunity), S-T (Strength-Threat), W-T (Weakness Threat) strategies.

Table I
Matriks S.W.O.T

	STRENGTH (S)	WEAKNESS (W)
	<ol style="list-style-type: none"> 1. Self-made information system 2. Has several cash management features 3. Have multiple user permissions 4. Have detailed information related to cash flow 	<ol style="list-style-type: none"> 1. Lack of experienced human resources in managing information systems 2. Information systems are still new in this business 3. Need adjustment from manual to computerized 4. Still a few features
OPPORTUNITY (O)	STRATEGI S – O	STRATEGI W – O
<ol style="list-style-type: none"> 1. Increase ease of decision making 2. Predict customer needs according to transaction history 3. The need for printing is still big 	<ol style="list-style-type: none"> a. Maximizing the information system that is owned in terms of security and comfort b. Make predictions of requirements from transaction details c. Make plans for business expenditure priorities. 	<ol style="list-style-type: none"> a. Training for human resources to be more skilled b. Maximizing existing features c. Perform system work evaluations
THREAT (T)	STRATEGI S – T	STRATEGI W – T
<ol style="list-style-type: none"> 1. More and more similar information systems 2. There is internet network disruption 3. Competitors who undertake 	<ol style="list-style-type: none"> a. Increasing cooperation with several suppliers of goods b. Added profit / loss feature c. Improve system performance 	<ol style="list-style-type: none"> a. Making innovations in better logging features b. Provide interactive application usage material c. Maintain good relations between

<p>new marketing strategies</p> <p>4. Competition in terms of features provided</p> <p>5. Security system breaches in information systems</p>	<p>d. Perform system security updates</p>	<p>partners and users of information systems</p>
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In designing the system, the author uses the Unified Modeling Language (UML). The diagrams that will be designed for example, are Use Case Diagrams in figure 1, Activity Diagram in figure 2, Sequence Diagram figure 3, and Class Diagram in figure 4.

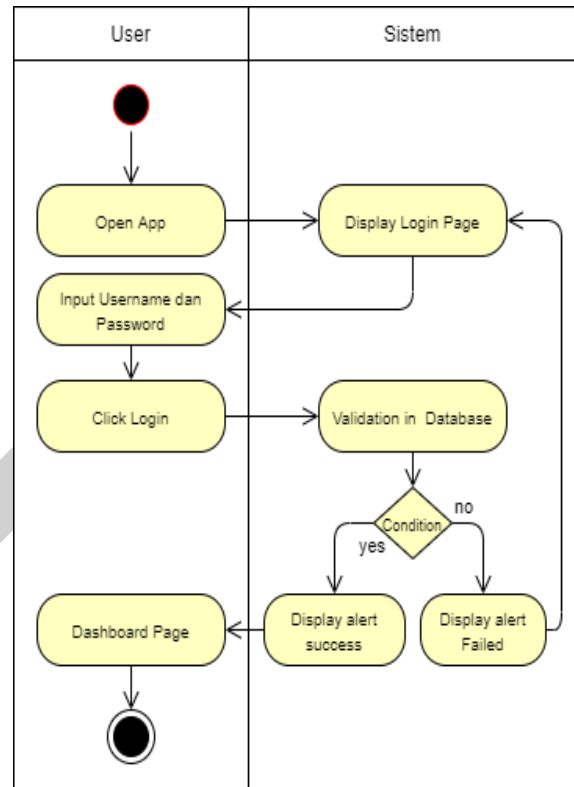


Figure 2. Activity Diagram Login

The Activity Diagram above describes user activity in logging in to the system

- The user enters email and password
- The system checks the suitability of email and password in the database
- If appropriate, the user will be redirected to the dashboard page
- If it doesn't match, the system will give a wrong password alert on the login page



Figure 1. Use Case Diagram

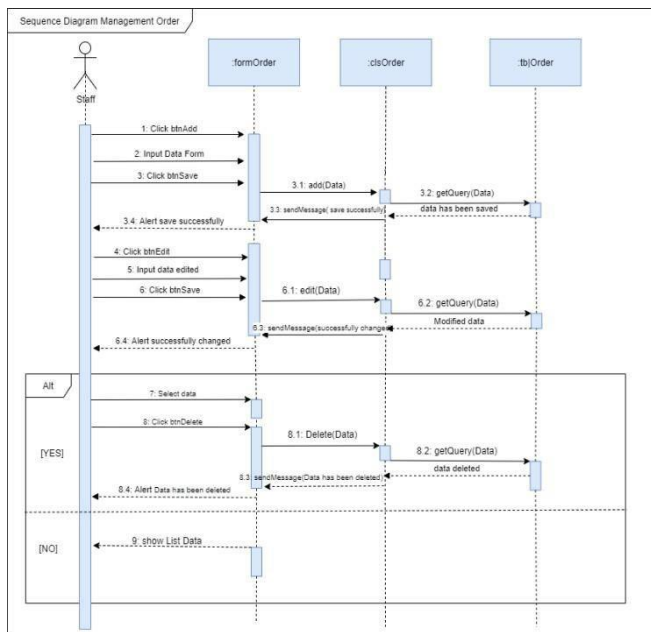


Figure 3. Sequence Diagram Order

The figure 3 shows the activities of staff managing order data, namely adding, editing and deleting order data in the system. The staff enters the order page, then the staff enters the order data on the add order form. If successful, the system will send a message the data was successfully stored. When the staff edits the data on the order data edit form, if successful the system will send a message data changed successfully. When the staff selects delete, the system deletes the selected order data and displays a message that the data was successfully deleted.

The class diagram is a diagram that describes or visualizes the system structure of classes and their relationships. The following is the proposed Class Diagram that will be used in this application.

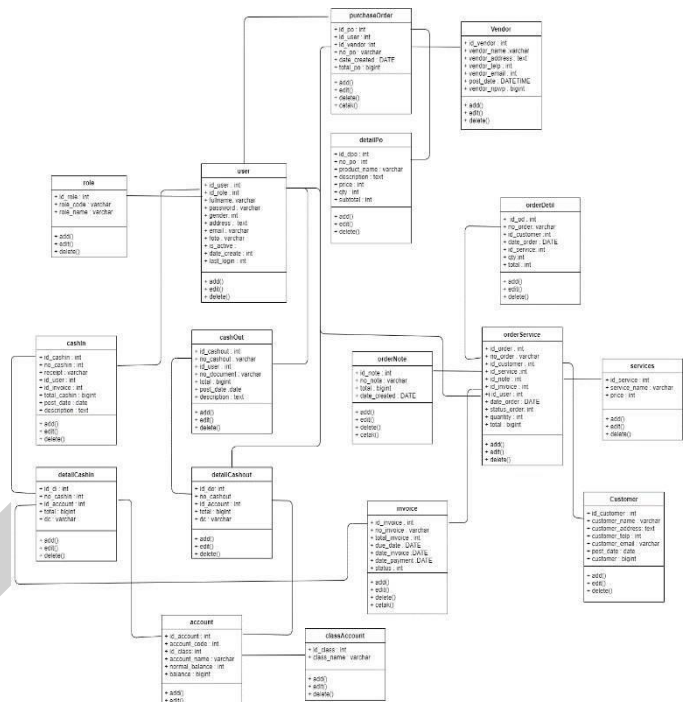


Figure 4. Class Diagram

The some of database specification will be shown in below table:

The user table is used to store personal data about system users in this application. The explanation can be seen in the following table:

Table II

Table user

No	Name Field	Data Type	Length Data	Remarks
1	id_user	int	11	Primary Key, autoincrement
2	id_role	int	3	Role id user, Foreign Key
3	fullname	varchar	50	Fullname user
4	password	varchar	50	Password user
5	gender	int	1	Gender user
6	address	text	100	Address user
7	email	varchar	30	Email user
8	foto	varchar	128	Photo User
9	Is_active	int	1	Status account
10	date_created	int	11	Date created account
11	last_login	int	11	Date last login
TOTAL			396	

The role table is used to store user role type data in this application. The explanation can be seen in the following table:

Table III
Table role

No	Name Field	Data Type	Length	Remarks
1	id_role	int	11	Primary Key, autoincrement
2	role_code	varchar	6	Role code, format {Autonumber}
3	role_name	varchar	15	Role name
TOTAL			29	

The Cashin table is used to store cash incoming transaction data on the system in this application. The explanation can be seen in the following table:

Table IV
Table cash in

No	Name Field	Data Type	Length	Remarks
1	id_cashin	int	3	Primary Key, autoincrement
2	no_cashin	int	3	Node cash in, format {Autonumber}
3	receipt	varchar	50	Type of funds
4	id_user	int	11	Id user, foreign key
5	id_invoice	int	11	Id invoice, foreign key
6	total_cashin	bigint	13	Amount cash in
7	post_date	date		Date transaction
8	description	text	100	Description cash in
TOTAL			191	

The service order table is used to store data about order transactions on the system in this application. The explanation can be seen in the following table:

Table V
Table order_service

No	Name Field	Data Type	Length	Remarks
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1	id_order	int	11	Primary Key, autoincrement
2	no_order	varchar	11	Number order
3	id_customer	int	11	Id customer, foreign key
4	id_service	int	11	Id menu service, foreign key
5	id_note	int	11	Id order note, foreign key
6	id_invoice	int	11	Id invoice, foreign key
7	id_user	int	11	Id user, foreign key
8	date_order	datetime		Date order
9	status_order	int	1	Status order
10	quantity	int	11	Total order
11	total	bigint	13	Amount price
TOTAL			102	

The invoice table is used to store data about invoices in the system in this application. The explanation can be seen in the following table:

Table VI
Table invoice

No	Name Field	Data Type	Length	Keterangan
1	id_invoice	int	11	Primary Key, autoincrement
2	no_invoice	varchar	18	Invoice number, format {Autonumber}
3	total_invoice	bigint	13	Amount invoice
4	due_date	date		Due date invoice
5	date_invoice	date		Date invoice
6	date_payment	date		Date payment
7	status	int	1	Status invoice
TOTAL			43	

And there are some example prototype of user interface in the figure 5 – 8.


ID PAGE: 01	PAGE NAME : LOG IN
DATE : 29 AUGUST 2020	VERSION : ALPHA
DESIGN PAGE	DETAIL PAGE
	<p>Form Log In : Form input Email dan Password for Log in</p> <p>Forgot Paswoord : link for reset password</p> <p>Log in : Link for enter to the app</p> <p>Sign Up : Link for register new account</p>

Figure 5 User Interface Log In

Figure 5 is the design user interface for the user login form by entering an email and password

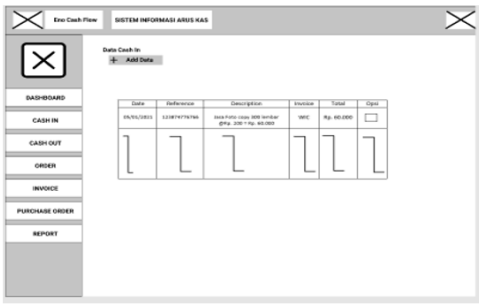
ID PAGE: 02	PAGE NAME : CASH IN
DATE : 29 AUGUST 2020	VERSION : ALPHA
DESIGN PAGE	DETIL PAGE
	<p>Button Left Navigation : Link to go to each module</p> <p>Add Data : Button for add new data cash in</p> <p>Opsi : Link for edit or delete data</p> <p>Log out : button log out in the top right corner for exit from app</p>

Figure 7 User Interface Cash In

Figure 7 is the design user interface for the cash entry page on the role of staff


ID PAGE: 02	PAGE NAME : DASHBOARD
DATE : 29 AUGUST 2020	VERSION : ALPHA
DESIGN PAGE	DETAIL PAGE
	<p>Button Left Navigation : Link to go to each module</p> <p>Button Detail : shortcut link for each module</p> <p>Log out : button log out in the top right corner for exit from app</p>

Figure 6 User Interface Dashboard

Figure 6 is the design user interface for the dashboard display of the admin role when successfully entering the application

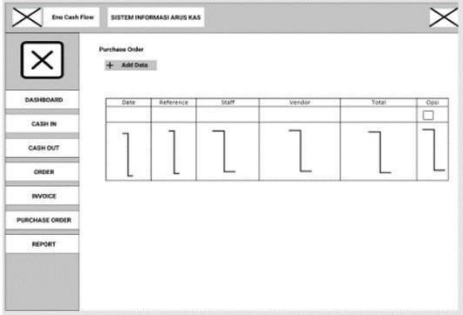
ID PAGE: 06	PAGE NAME : PURCHASE ORDER
DATE : 29 AUGUST 2020	VERSION : ALPHA
DESIGN PAGE	DETAIL PAGE
	<p>Button Left Navigation : Link to go to each module</p> <p>Add Data : Button For input new data purchase order</p> <p>Opsi : Link for edit and delete purchase order</p> <p>Log out : button log out in the top right corner for exit from app</p>

Figure 8 User Interface Purcahse Order

Figure 8 is the design user interface purchase order design for staff roles

IV. RESULTS

The interface of implemented application is based on the user interface design

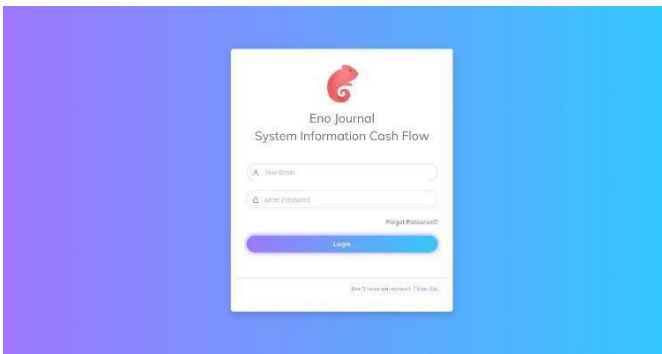


Figure 9 Login Page

Login page contains user login using email and password

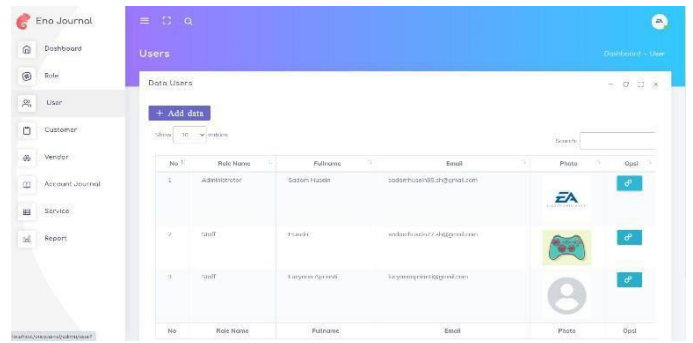


Figure 12 User Page

The admin user page page is used to manage existing user data

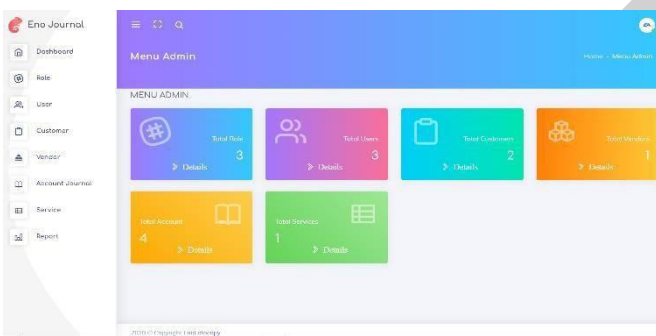


Figure 10 Admin Dashboard Page

The admin dashboard page contains information on the number of inputs for each module

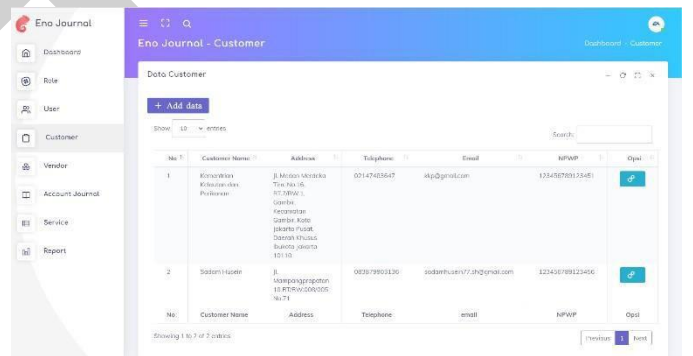


Figure 13 Customer Page

Customer page is used by admin to manage customer data

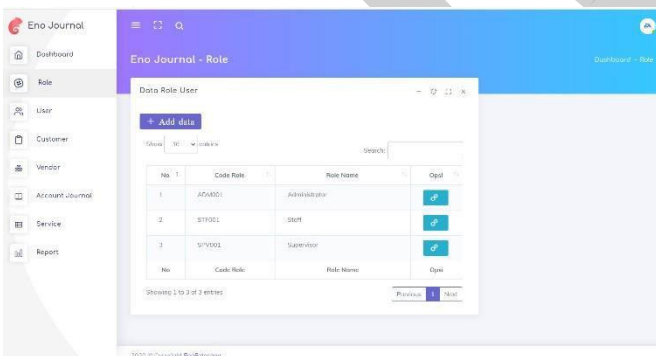


Figure 11 Role Page

The admin role page is used for role data management

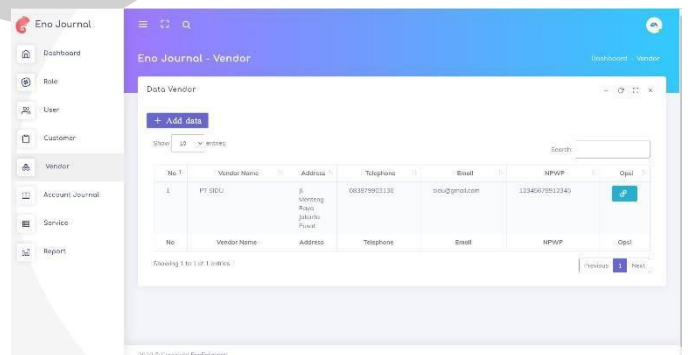


Figure 14 Vendor Page

The vendor page is used by admins to manage vendor data

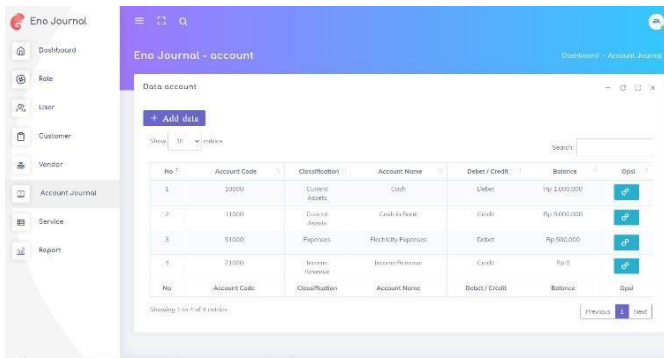


Figure 15 Account Journal Page

The journal account page is used by the admin to manage account data

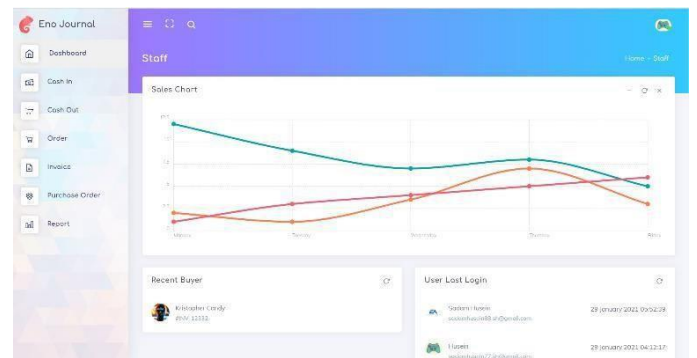


Figure 18 Dashboard Staff

The staff dashboard is used by the staff role when you first enter the application after logging in

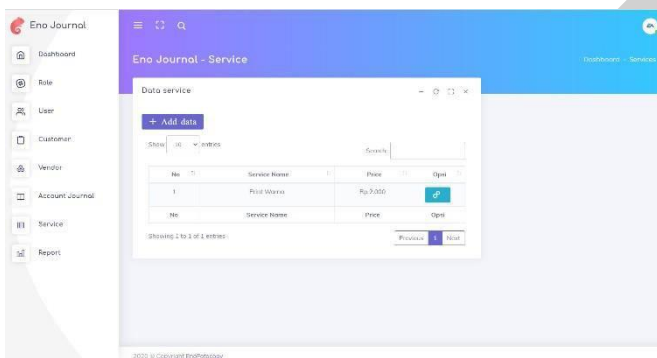


Figure 16 Service Page

The service page is used for admins to manage what services are offered

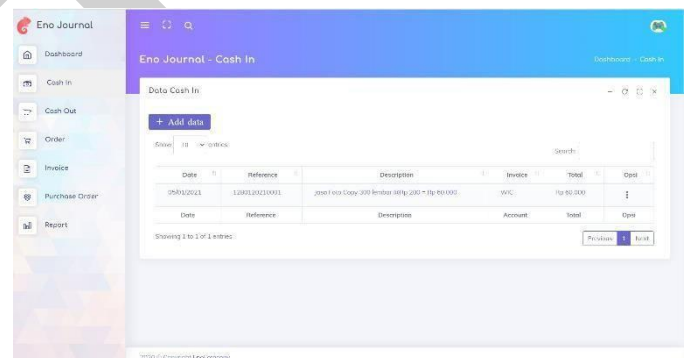


Figure 19 Cash In Page

Cash in page is used by staff to manage incoming cash from sales

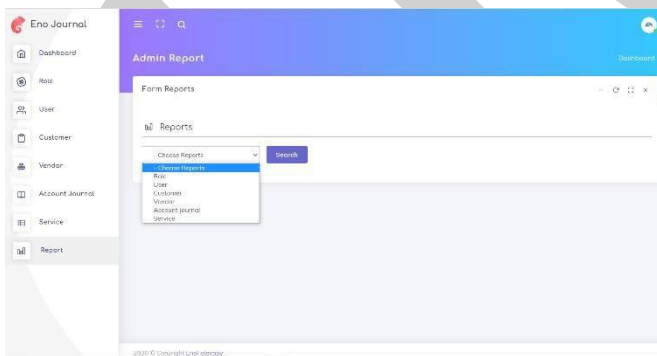


Figure 17 Report Page

Report page is used to inquire, report data from each module as needed

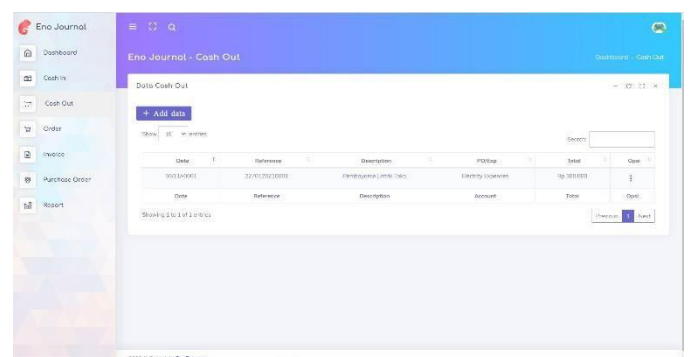


Figure 20 Cash Out Page

cash out page is used by staff in managing cash disbursements

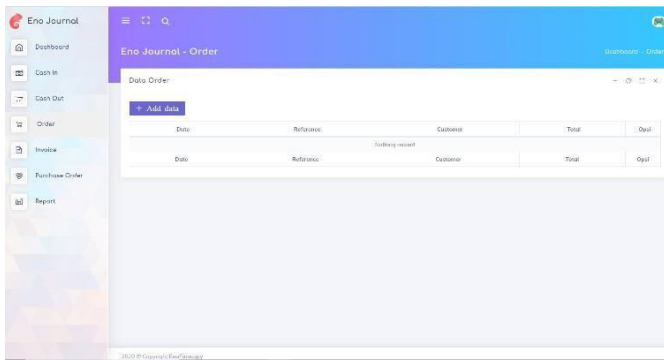


Figure 21 Order Page

The order page is used by staff to input customer orders

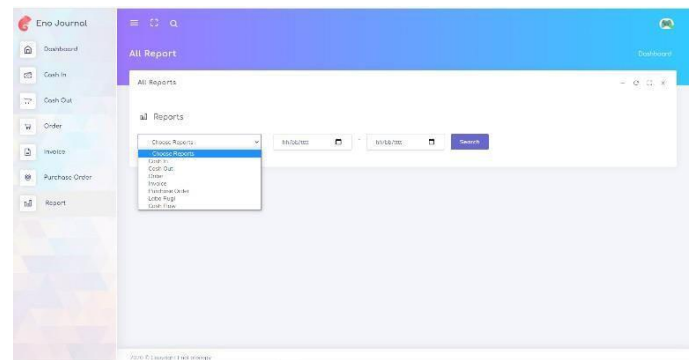


Figure 24 Reports Page

The reports page is used by staff for printing reports based on modules and requirements

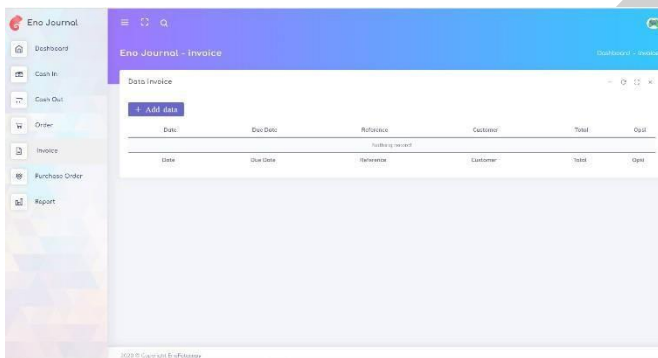


Figure 22 Invoice Page

The invoice page is used by staff in managing and issuing payment invoices

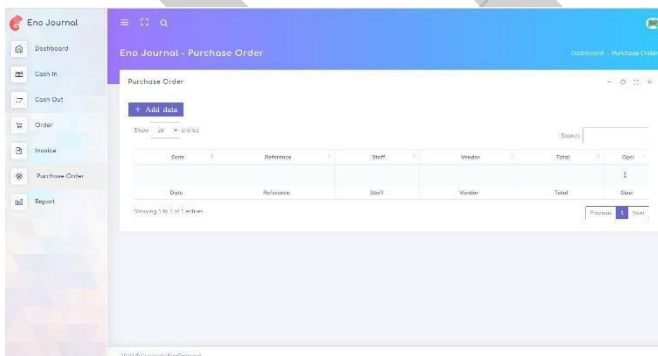


Figure 23 Purchase Order Page

The purchase order page is used to make orders for goods to vendors by staff

V. CONCLUSIONS

The conclusions obtained in this study are:

1. Based on the incoming and outgoing cash data in eno foto copy with a sufficient amount of data, a financial cash flow information system can be created using web technology so that later it can be used anywhere and anytime as long as it is connected by an internet connection through a design method using UML (Unified Modeling Language).) By adjusting the existing proposed system and SWOT analysis in planning in determining the best scenario.
2. In its application, it will change the existing running business processes to be more organized by storing transaction data in the database.
3. Expenditures and entries within a certain period can be clearly seen on the recording of transactions entered into the system.
4. The incoming and outgoing cash data will be recorded into the system which will later

become an expected report such as a cash disbursement report, a cash income report and an income statement.

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