Application Design for Recording Financial Statements

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Abstract. The development of information technology users requires applications to organize the recording and presentation of financial report data more easily and accurately. The current financial statements are not only by companies but also by Micro Small and Medium Enterprises (MSMEs). Besides, the public also uses them to manage their financial records. The purpose of this research is to develop accounting applications that have been circulating today to support financial statements to ensure data security. This research used a descriptive qualitative method to collect data in accordance with field facts. The population of this research is students of Universitas Komputer Indonesia who learn to use accurate applications because accurately studied by accounting students, the sample is students majoring in accounting. Sample techniques used purposive sampling, where respondents will be selected according to the criteria. Data collection through questionnaires were distributed online to obtain data in accordance with field facts. This study shows that the development of accounting applications supports the recording of financial statements in maintaining the security of existing data in financial statements. It impacts MSMEs who want to store their financial transaction data safely because there are security features similar to accuracy, except that before storing data, users must enter a special code as at the beginning when starting data recording. It can ensure security in recording financial statements and preventing data modification fraud.

1. Introduction

Facing the development of information technology, several companies create and develop systems that facilitate the management and recording of financial statements. Financial statements are records that accurately inform data to all parties who need to make an economic or financial decision [1]. Accounting Information System consists of data collection, classification, and analysis information that is useful for decision making for companies [2]. Accounting Information System that is developing at this time in the form of several applications supporting the writing is a recording of financial statements such as Zahir

Accounting, Mind Your Own Business (MYOB), and Accurate. There are several considerations in using the software to support the accounting work process for faster and easier use which are

a valid level of security for each user, the ability to explore all reports to the excel program without going through the export and import process, which will make it difficult to display the comparative financial statements [3]. A good Accounting Information System can integrate components both physical and nonphysical, that are interconnected and cooperate optimally to process transaction data related to financial problems. Nowadays, technology has been developed rapidly. Therefore, humans began to look for and create technologies that could help in many ways.

This study identified the previous research that operationally accounting information systems use processes to convert inputs into outputs to achieve the overall system objectives. Besides, the problem facing Indonesia is that people who are not qualified lead many areas. Therefore, the information generated from the information system can be used to measure organizations or companies' performance [4]. In another study, it is stated that information technology has brought positive changes in an organization [5]. The U.S. federal government is encouraging a range of information about computer security on protecting critical infrastructure assets that are largely owned by the private sector. Therefore, information security is essential for accurate financial reporting, timely and relevant reporting for decision making [6]. Several accounting applications help to make it easier to record and create financial statements such as Zahir Accounting, MYOB, and Accurate. Accurate provides audit and counseling services to a few small and medium-sized companies including high-tech companies [7]. Other research states that Accurate accounting software was developed in 1999 by PT. Cipta Piranti Sejahtera (CPSSoft Developer of Accurate software) and has been applied by more than 50,000 users and cooperates with more than 30 leading universities in Indonesia as accurate partners [8].

This research aims to develop one of the accounting applications to ensure the quality of data security for users in recording financial statements. At this time, everyone will prefer applications that have a good level of security. Moreover, it will reduce the level of fraud and data leakage. This research used a descriptive qualitative method to collect data in accordance with field facts. Techniques used through literature studies on accounting application security systems and supported by questionnaires are distributed online to obtain data from users regarding accurate accounting applications.
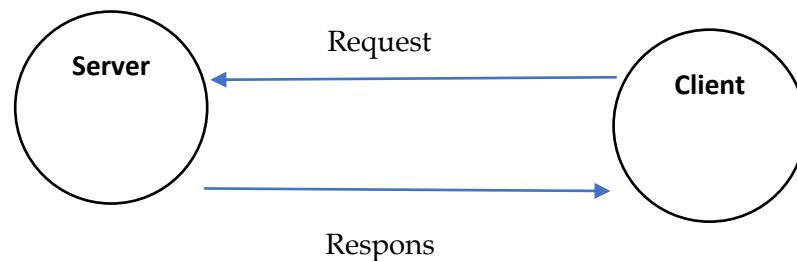
2. Method

This research used a descriptive qualitative method that can produce conclusions based on problems in research. This descriptive research method can determine free variables, whether only one or more variables [4]. This research population is students of Universitas Komputer Indonesia who learn to use Accurate applications because accounting students studied Accurate. The sample is students majoring in accounting. Sample techniques used purposive sampling, where respondents will be selected according to the criteria. Thus, a library study of

the security quality of accounting applications is required accurately in this study. In addition, we use questionnaires that are typically easy-to-assess responses and easy-to-analyze data [9]. The dissemination of questionnaires online using Google Drive and intended for accurate users who are accounting students. Flexible data retrieval time in January 2021 to 34 respondents.

3. Results and Discussion

3.1 Accurate Technology

Accurate uses SQL-based firebird server databases from client server classes to serve users without important performance. SQL stands for Structured Query Language, being the language for extracting information from data [10]. Client/Server Technology with rollback capability [11]. Client/Server Technology is built into a network that covers two connected computers such as the server and the client. Then, the client can send the request to the server to return a response to the client. The client can also send one or more to the server when processing data to perform certain things or tasks, and the client is provided with the service by the server part [12]. Here is an overview of how the client/server is connected, as shown in Figure 1.

Figure 1. Client/Server overview

Accurate has a reason in choosing Client / Server Technology. It is shown as follows:
  a. Flexibility
     Flexibility is intended when users can select a variety of existing tools as needed.
  b. Reduce Network Traffic
     It will reduce network load because the server PC only sends the necessary answers from client requests, not sending the entire database file.
  c. Capacity
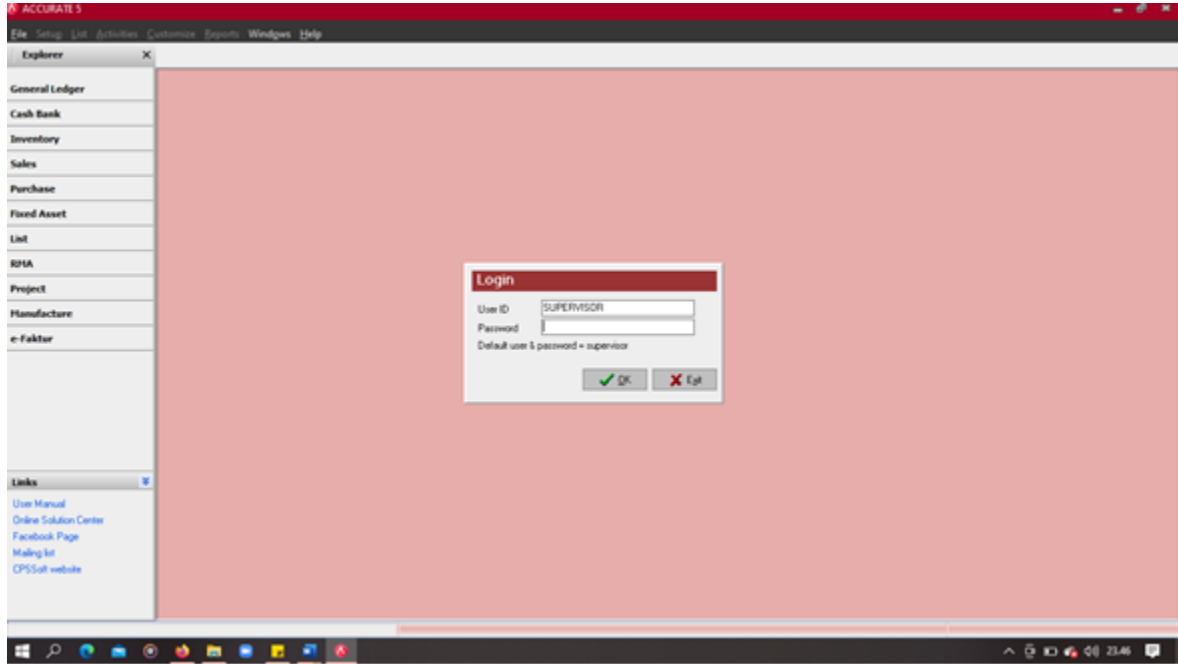   The size of the client/server owned in GB is no longer MB.

d. Speed
   If using client/server data, the search time can be faster than others.
e. Scalability
   More databases can run on multiple platforms such as Linux, Windows, and others. This will make it easier to add servers with increased needs in the future.
f. Integrity and Security
   Client/Server allows both parties to fulfill what they need. Like End-user can use the desired tools to read data while MIS can back up the entire data from one place and limit the parties who can read and change it.
g. Programmable
   Can write business rules and program in a database server that will make general nature rules do not need to be re-listed on each application created.
h. Transaction Control
   Database servers can update multiple tables at the same time and make sure they are successfully updated.

That way, the Accurate application can maintain its main properties, namely easy use (user friendly) and high accuracy, which will give satisfaction to the user [11].

Accurate's security method is layered and encrypted at the initial display when it starts entering data. Database encryption is more focused on using encryption to convert a text into a partially encrypted database. It is not readable by anyone except those who understand encryption keys [14].

The application form of accurate encrypted security system will appear as in Figure.2

Figure 2. Login view on Accurate

Figure 2 shows a display when the user opened the Accurate application. Then, choose the place or folder where the data storage is wanted, followed by selecting the Accurate Base Set-up to be used. After entering the company data, Accurate will ask the user to enter the User ID and Password once Accurate is ready to use if it has finished the stages. There are several sections related to the process of sales, as described in Table 1.

Table 1. Related sections

Sections	Task
Administration	Record and calculate the overall cost to be given to the customer.
	Write down all the transaction data that occurred.
Support Technical	Prepare items ordered by customers.
Owner	Receive and check reports on transactions made by customers.

In Table 1, it is explained about the tasks of each section [15]. Thus, minimizing the loss of a sense of responsibility for the task that must be done. Moreover, when an error occurs, it can be checked the error comes from which part, such as when an error occurs in the number of items

recorded with the goods coming out. Then, we can find out it happened due to an administrative error while recording the transaction.

A flowchart is a graph that becomes a means to document a sequence of operations, which functions as a means of communication in the form of images from one party to another [15]. Data processing in Accurate application is shown in the form of a flowchart that is shown in Figure 3 [16].
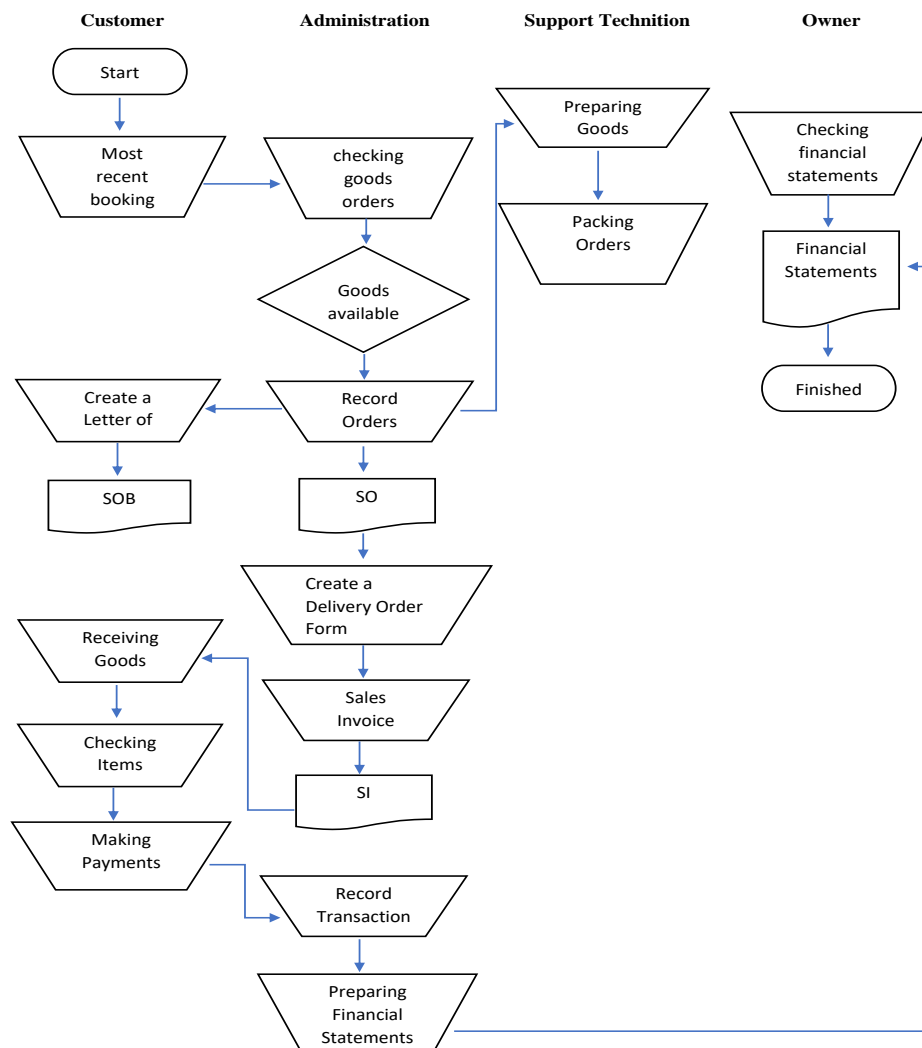

Figure 3. Flowchart Accurate

3.2 Development Modeling

The model suggested in this study is called Dynamic Data Encryption Strategy (D2ES). In other studies, it was mentioned that this model is designed to protect user data at the highest level when using applicable devices and networks. Figure 4 shows the high-level framework on the D2ES model, where the main procedures and techniques used in D2ES are, "the first to classify the data package according to the level of privacy. Then, the second determine whether the data package can be encrypted under the time limit" [17].
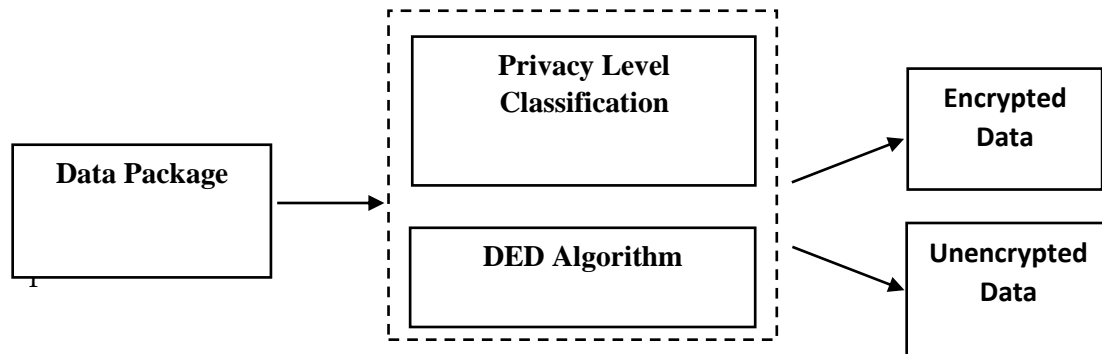

Figure 4. Structure D2ES

In another study, it is explained that D2ES results from consideration of big data privacy issues and practical implementation. The recommended models have been designed to maximize the efficiency of privacy protection. An algorithm that supports that model is DED that has been developed for dynamic alternative data packages for encryption under different time limits [15].

3.3 Questionnaire Results

The sample targets are 25 women (73.5%) and 9 men (26.6%). The data source results show that all the applications are already the most accurate and fairly difficult. In addition, the level of security and the difficulty in the financial statements are excellent. The target samples show that they strongly agree to repeat layered security features before files are saved (see Table 2).

Table 2. Response percentage

No	Questions	Value
1	Never used the Accurate app	100%
2	The use of the Accurate application helps record financial statements	100%
3	Security in accessing data in Accurate application is guaranteed	85,3%
4	The use of Accurate accounting application is quite difficult	58,9%
5	Addition of security features in Accurate application at the end (save file)	97%

From Table 2, it is explained that the Accurate accounting application is very helpful for the listing of financial statements. Although half of the responses mention that the application is quite difficult, the security in using the application is maintained.

4. Conclusion

From the results, the Accurate accounting application already has a sound security system. However, with the development of information technology nowadays, we decided to develop a security system in the application by adding A D2ES models with a high-security level. It will be inserted at the end when the user will save the file or data that has been created in the Accurate application. It is secured with a unique code that certain parties or users only use. That way, the information that has been created has a level of indiscriminate data conversion or cheating decreases.

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