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Information Systems

Implementation of The Sales and Purchase Program Application Using the Rapid Application Development Model Web Based

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A B S T R A C T

The development of information technology is currently developing rapidly and rapidly, which is supported by one of the means, namely computers. Of course, computers that are equipped with certain applications are used to help make human work easier in managing data for an organization or company so that they get accurate results that meet their needs. The results of observations that have been made show that sales and purchasing activities still use manual systems, one of which is in clothing stores. Starting from processing goods data, difficulties checking stock, purchasing transactions, sales transactions, as well as storing other data related to all types of activities, which can cause losses for shop owners, errors in recording and inaccurate reports being made. Judging from the large number of transactions carried out at clothing stores, a faster and more accurate information system is needed. Therefore, the author created a computerized program design using the Microsoft Visual Basic.net programming language and MySQL database, so that information and activities that occur can be carried out quickly and accurately. The method used in designing this program uses the Rapid Application Development (RAD) model. This RAD model is an adaptation of the high-speed version of the waterfall model for the development of each software component. The results achieved from discussing this theme are in the form of ready-to-use sales and purchasing program applications. In this case, the use of program applications is the best solution to solve existing problems, and by using program applications an effective and efficient activity can be achieved in supporting activities, especially for handling sales and purchasing problems.

INTRODUCTION

Information and communication technology is currently developing increasingly rapidly so that we are required to have certain skills to be able to adapt to existing technological advances. This technological development covers all aspects, especially in the purchasing and sales business sector. One of the supporting equipment used is a computer, which is equipped with a certain application program. Computers are also the most sophisticated and efficient tools, very helpful in summarizing the process of activities in a field and aim to make all existing work easier [1,2,3,4,5]

Based on the observations that the author has made, the author still finds that there are business activities where data management is carried out manually. Purchasing and selling activities at clothing stores is one of the business activities. With data processing still manual, this causes the process of buying and selling clothes to be less effective and efficient. There are difficulties in checking the stock of clothes available in shops, there are errors in transactions that can cause

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losses. Likewise, making purchase and sales reports are still in the form of excel files, and the process of making reports still takes a long time and is less accurate [6,7,8,9,10].

To overcome problems in the clothing buying and selling system, it is necessary to develop and design an integrated program. This aims to improve performance and make transactions easier for the company. To produce a system that is equipped with software program applications so that it has good performance, it cannot be separated from the choice of analysis and design method or model. The implementation of a system does not only depend on the model and features of the software and programming language used, but must pay attention to the appropriate model for its implementation so that the main goal can be [11,12,13,14,15,16].

A system that has a high level of dynamism, time availability and a limited development budget, to meet the latest information needs quickly and accurately, and requires close interaction between personal and user characteristics, it is more appropriate to implement the Rapid Application Development (RAD) model, This was conveyed by Pandey, et al, 2013. Applying this RAD model, one must consider time and cost aspects in a balanced manner and is more suitable for developing information systems that are superior in terms of speed, accuracy and low cost. This also needs to involve interaction with users, so that they will achieve satisfaction in implementing the new system [17,18,19,20,21,22,23,24,25].

The design of the sales and purchasing program application for this clothing store uses the Visual basic.net programming language and is supported by the use of MySQL as the database. With the implementation of this program application, it is hoped that data processing starting from processing company operational data to making reports can be well integrated, so that customers will feel satisfied with the services provided and management can carry out periodic evaluations of the performance of the new system so that can help in decision making [26,27,28,29,30].

METHOD

The type of research that the author conducted was in the form of a case study using the research & development (R&D) research method and the analysis and application design method using the RAD (Rapid Application Development) model, presented by [31,32,33,34,35]. The RAD model is an alternative to the System Development model Life Cycle (SDLC), which currently many people use to overcome delays and problems that occur when using conventional models. This RAD model is suitable for producing software systems with urgent needs and a short time to complete. If the software requirements are well understood and the software scope is well defined then the team can complete the software creation in a short time. The RAD model divides the development team into several teams to work on several components. Each team's work can be done in parallel. Below is a picture of the RAD model [36,37,38,39,40].

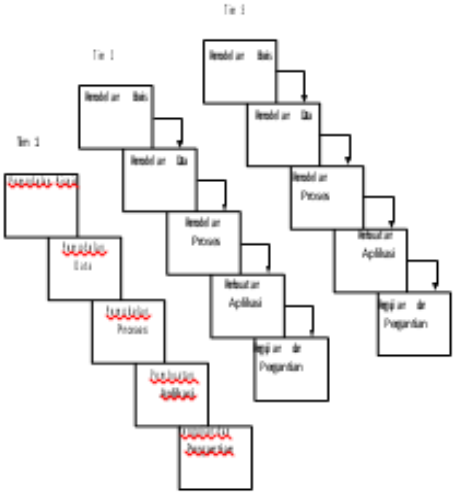

Figure 1. RAD Model

For normal system design, if it takes 180 days, then with the RAD model it only takes 30-90 days to complete the software system. This RAD model places great importance on user involvement in the analysis and design process, and thus can meet user needs well and will significantly increase the level of user satisfaction. system, this was conveyed by [41,42,43,44,45,46,47,48,49].

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RESULTS AND DISCUSSION

Business Modeling

In this case review the author discusses the buying and selling program at a clothing store. In several clothing stores, it was found that data processing did not use computer programs (manually) in carrying out transactions, such as: sales transactions, purchase transactions, purchase returns and sales returns, as well as making reports to the shop owner. From this basis, the author in this final project creates a clothing buying and selling program which can later be used and implemented in clothing stores.

Modeling Data

In this second stage, the author will elaborate a number of design Which needed in making program sales and purchases in clothing stores.

Design Databases

In design databases This, writer make something chart that is Normalization. This normalization contains tables or files needed in making program sale And purchase. This normalization contains tables or files needed in making program sale And purchase. As for For normalization, writer direct show in the form of third.

Process Modeling and Application Creation

Input/output design, the author designed it in such a way as to what is needed in processing sales and purchase data at clothing stores. The input/output design is as follows:

Figure 2. Main Menu Display

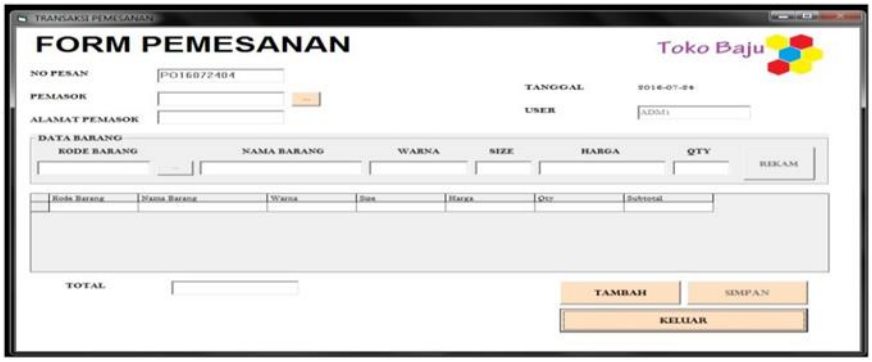

Figure 3. Order Transaction

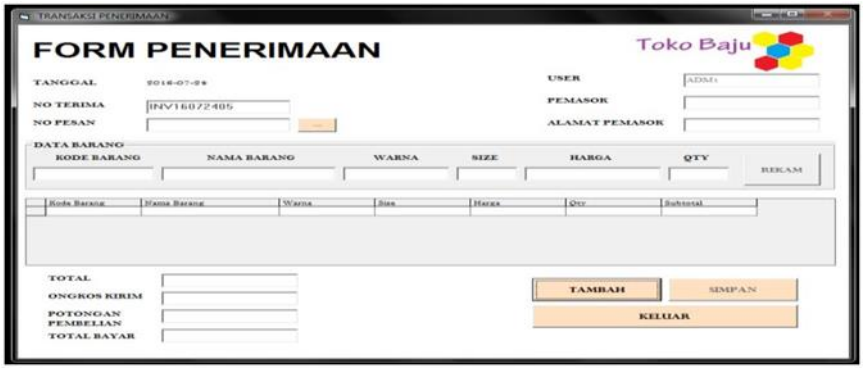

Figure 4. Receipt Transaction

Figure 5. Purchase Return Transaction

Figure 6. Sales Transactions

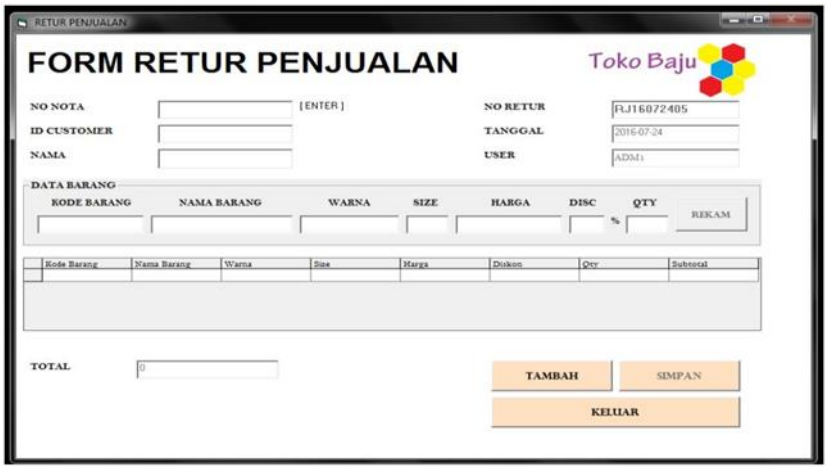

Figure 7. Sales Returns Transaction

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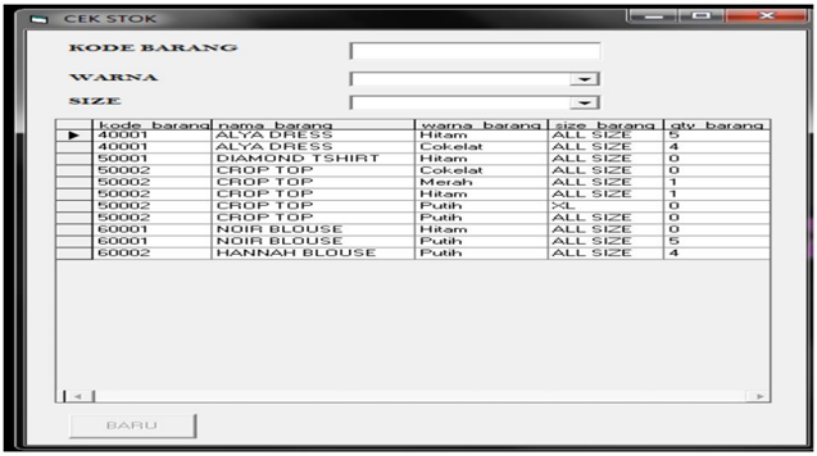

Figure 8. Check Stock of Goods

Testing

After stages design And coding has finished, so will done testing or testing program to see if it is appropriate Which needed Good about input or output Which produced, is Still There is a mistake in the program, so that later application sale And This purchase can be implemented on Clothing store. For more details in This test uses the black method box . Method Black Box It means test device softfrom facet specification functional without testing design and code program. Testing intended For know functions, input And output from device soft in accordance with required specifications.

CONCLUSION

Based on study Which has the author did regarding the sales system And purchase on shop clothes, so it can be concluded that the role computer Which Already be equipped with application program certain very important in processing data start from input data, storage data, data changes, data deletion up to with search data. With exists use application program purchase And sale the so all activity can done with fast, precise and accurate.

By Because That need exists something application application program For finish problem the. Planning program This intended to simplify the workings of the system previously as well as For do efficiency time so that can optimizing performance source Power man (HR) And Also guard so that data is not easily lost. With implementation program This later, so required exists training for every user (user) of this application, so that the application has made can Work with maximum according to the purpose for which it was created And anticipate exists error on during the program executed.

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