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Web-Based Auction Information System at PT. Pegadaian Medan

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A B S T R A C T

The development of the world of technology today is very fast. Technology has been used in various aspects of people's lives, especially the internet. The application of this internet technology makes it easier for people to access information because there are no limitations in terms of access to information. On this occasion, the researcher tried to develop a WEB-Based Pawn Auction System. The online auction service provider is the committee auctioning off customer auction items that are due and the buyer makes a price offer. This Pawn Auction Service Provider Service that is due is made using the PHP programming language, MySQL database, and XAMPP 1.6 webserver. This application will be made web-based so that it is easy to access by various parties and uses a user-friendly interface so that it is comfortable to use. This application can be run on various existing internet web browsers. In creating this application, the researcher concluded that the existence of the Pawnshop Auction Service Provider will increasingly open up opportunities for the wider community to get the chance to auction and obtain auctioned goods in the form of auctioned goods that have matured at a price that is cheaper than the market price

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INTRODUCTION

The development of the world today demands to know more about technology, especially internet technology. The internet provides many application services related to data communication, including email which is used for correspondence using the internet, FTP (File Transfer Protocol) which is used to send and retrieve data in the form of files from the internet, World Wide Web (WWW), which allows to create Web-based applications or Website Applications. Along the way, internet application services continue to develop and grow until now.

Likewise with the business world today, the internet is very useful in facilitating sales and auction transactions that are more practical, cost-effective and time efficient. In the past, people bought and sold goods, or auctioned goods had to meet or meet face to face, with the advancement of technology today, it is easier to transact without having to meet face to face with the seller or auctioneer. E-auction is one step to auction goods (buy and sell goods) online where the highest price from the buyer or buyer is the winner. PT. Pegadaian is a State-Owned Enterprise (BUMN) which has the motto Solving Problems Without Problems.

The General Pawn Company accepts various kinds of goods pawned by customers. From the pawned goods, various kinds start from cheap goods to expensive goods. The pawned goods will be exchanged for money, the money is as a loan from the Pawnshop and the goods they use as collateral. If the pawned goods have not been redeemed at the end of the withdrawal period, then the goods become the property of the Company PT. Pegadaian.

PT. Pegadaian holds an auction bazaar which is held twice a month. Where customers can directly follow the auction bazaar, which is held by PT. Pegadaian. Based on the background above, it is necessary to design a Web-Based Auction Information System for Goods at PT. Pegadaian Medan.

LITERATURE REVIEW

Information System

A system is a series of two or more interrelated components that interact to achieve a goal (Bunafit Nugroho, 2007). Another definition of a system according to Jogiyanto in his book Design Analysis explains that "a system is a network of interrelated procedures, gathered together to carry out an activity or to complete a certain target. (Jogiyanto, 2005).

Information is data that is processed into a form that is more useful and meaningful for those who receive it" (Jogiyanto, 2005). Based on the definition above, researchers can conclude that information is a collection of data that is processed and processed so that it has value and benefits.

An Information System is a special type of work system that uses information technology to obtain, store, retrieve, manipulate, and display information (Bunafit Nugroho, 2007). An information system is a system within an organization that meets the needs of daily transaction processing, supports operations, is managerial and strategic activities of an organization and provides certain external parties with the necessary reports". (Jogiyanto, 2005). Based on

the definition above, researchers can conclude that an information system is a collection of interconnected system components to achieve a goal to support managerial operations and strategic activities of an organization.

Auction

According to Ervianto (2005:49) auction is a series of activities to provide goods/services by creating healthy competition among providers of goods/services that are equal and meet the requirements, based on certain methods and procedures that have been determined and followed by the related parties in a principled manner so that the best provider is selected.

Internet

Internet or International Networking is two or more computers that are connected to each other to form a network that includes millions of computers in the world, which interact with each other and exchange information. While in terms of science, the Internet is a large library that can be accessed anytime and anywhere, and in it there are millions of information or data that can be in the form of text, graphics, sound or animation, and others in the form of electronic media. In terms of communication, the Internet is a very efficient and effective means of exchanging information over long distances, or within the internal environment of an organization. Initially, the Internet was a computer network formed by the American Department of Defense in the 60s, through the DARPA (Defense Advanced Research Project Agency) project called ARPANET, which demonstrated how UNIX-based computer hardware and software could communicate over long distances via telephone lines. The ARPANET project designed the form of the network, reliability, how much information could be transferred, and finally all the standards determined became the forerunner for the development of a new protocol now known as TCP/IP (Transmission Control Protocol/Internet Protocol). (Abdul Kadir, 2009).

Hypertext Markup Language (HTML)

Hypertext Markup Language (HTML) was created to publish information on the web, because of its simplicity and ease of use. HTML commands are placed in files with the extension *.html and are marked using tags (signs) in the form of the characters "<" and ">". HTML codes are read by the browser from top to bottom without any jumps. The structure of an HTML document is basically divided into two large parts, namely the head and body. Each is marked by a pair of container tags <head> and <body>. The head section contains the document title and other basic information, while the body section is the document data. Text formatting and link formation are done directly to the object by being marked by HTML tags. The latest standard now is the HTML 4.0 standard, which supports, among others, CSS (Cascading Style Sheet), Dynamic Content Positioning, Downloadable Font and so on. (Abdul Kadir, 2009).

Browsers and Web Servers

A web browser has the task of translating information received from a web server and displaying it on the user's computer screen. Because HTTP allows a web server to send a variety of data, such as text or images, the browser must be able to recognize the various types of data it will receive, and then must know how to display it correctly. Generally, web browsers receive data in HTML format. The browser has full power to translate HTML commands. Although a

consensus has been made to standardize the format and elements of HTML, each type of browser can translate the same HTML file differently. The most famous web browser programs today are Netscape Navigator and Microsoft Internet Explorer. (Abdul Kadir, 2009).

Database

A database is a collection of connected data stored together on a medium, without any duplicate data, so that it is easy to reuse, can be used by one or more application programs optimally, data is stored without depending on the program that will use it, data is stored in such a way that if there is an addition, retrieval and modification of data can be done easily and controlled.

The database itself has various arrangements of complete operational data records from an organization or company, which are organized and stored in an integrated manner using certain methods in a computer so that they are able to meet the optimal information needed by users. (Harlinda. 2005).

Context Diagram

According to Krismiaji in his book entitled Accounting Information Systems, it explains that "the highest level is called a context diagram which describes the most concise overview of a system" (Krismiaji, 2010). Based on the definition above, it can be concluded that what is meant by a context diagram is the highest level of DFD which describes all input to the system, it will provide an overview of the entire system.

METHODOLOGY

- **System Analysis and Design**

Analysis of the running system

PT. Pegadaian Medan is currently still holding a Bazaar to auction goods held twice a month, customers must come directly to the Pegadaian office to participate in the Bazaar auction of goods held. The auction process is supervised by the Regional Office and related parties from Pegadaian. Customers can make price offers for the auctioned goods. If one of the customers bids the highest price, the goods belong to the customer.

Proposed System Analysis

Several considerations used in designing an online auction information system at PT. Pegadaian are related to the implementation of the auction process at Pegadaian. Among others:

1. The auction process at PT. Pegadaian is currently still using the Bazaar system.
2. There are still many obstacles to the auction process because many customers come from outside the region.

Based on the considerations above, an application was designed that can make it easier for the public to search for goods with the desired category. Facilitate meetings between sellers and buyers anytime, anywhere without having to be present at the auction venue at PT. Pegadaian. Through the system interface trial stage, the results obtained can be seen that this system is feasible to be implemented in real terms.

This system also provides reports on auction winners, goods offers. The bidding process also uses an automatic bidding system, making it easier for customers to bid on goods. The process of determining the auction winner is determined by the highest price offer.

System Requirements

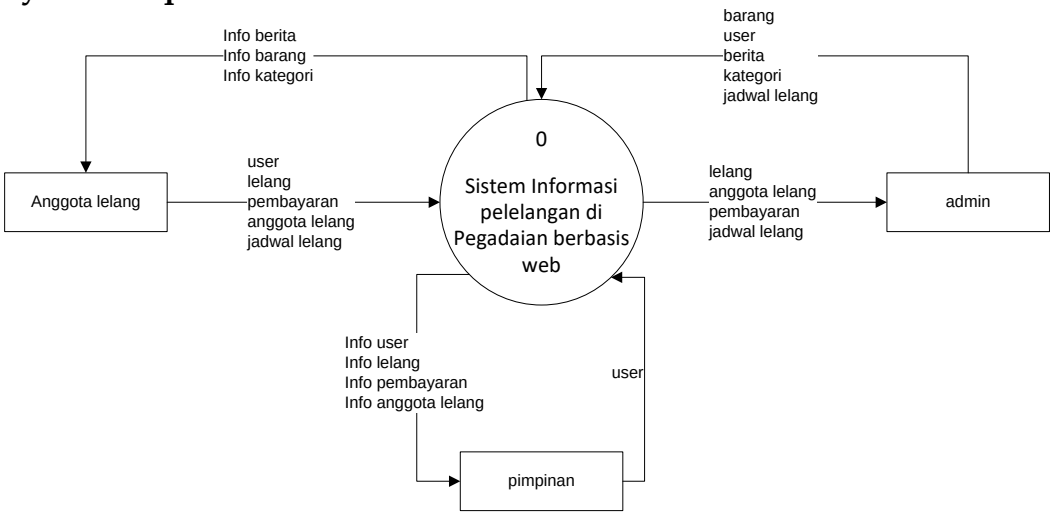

Figure 1. Context Diagram

- **System Implementation and Testing**

System implementation is the steps or procedures taken in completing the approved system design, testing, and starting a new system that has been refined. In order for the design system that has been worked on to run well or not, it is necessary to test the system that has been worked on. Therefore, several components are needed to cover Hardware, Software and Brainware.

Hardware is a physically visible component that works together in data processing. The hardware used includes:

a. Monitor
b. Central Processing Unit
c. Hard disk as a place for the system to operate in storage media
d. Minimum memory 1GB
e. Keyboard and Mouse.

Software is an instruction or computer program that can be used by a computer by providing the desired function and appearance. In this case, the software used is:

a. Windows 7 Operating System
b. Adobe Dreamwever CS5 as an editor tool for designing websites
c. XAMPP 1.7.1 where there is Apache as a web server, PHP as the programming language used, and MySQL as software for the database server.
d. Mozilla Firefox 3.5+ to run the designed program.

Brainware is a human factor that handles existing computer facilities. The human factor in question is people who have a part to handle the system and are human elements that include:

a. System Analysis, namely people who form and build system or program design facilities.
b. Programmer, namely people who are used in building a program.
c. Administrator, namely people who operate the system such as entering data to be operated by the computer in producing information and so on.
d. Public, namely people who use the system that has been designed for the information needed

RESULT AND DISCUSSION

Admin Login View

The form below is a form that functions as an admin and leader who wants to enter the admin or leader page. An admin and leader who wants to enter must be required to provide the correct username and password. If the admin and leader do not provide valid username and password data, then the admin and leader cannot enter the main menu and there will be a notification that the username and password provided are invalid. The login image can be seen in Figure 2

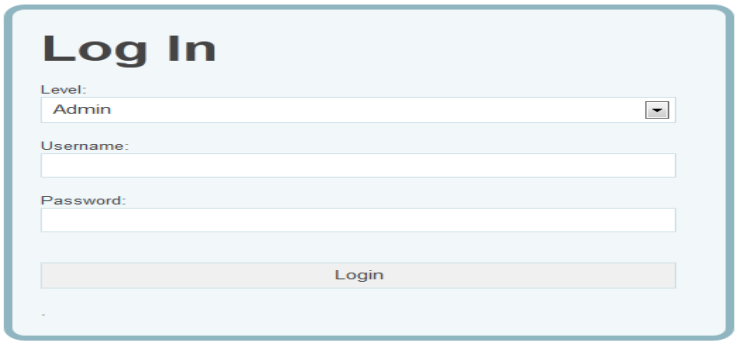

Figure 2. Admin and Leader Login Page

Item Data Input Page

The image below is a display of the image for Inputting item data. For the schedule data input form, there is data that must be filled in by an administrator, namely item name, item category, initial price, and item description. The item data input image can be seen in Figure 3

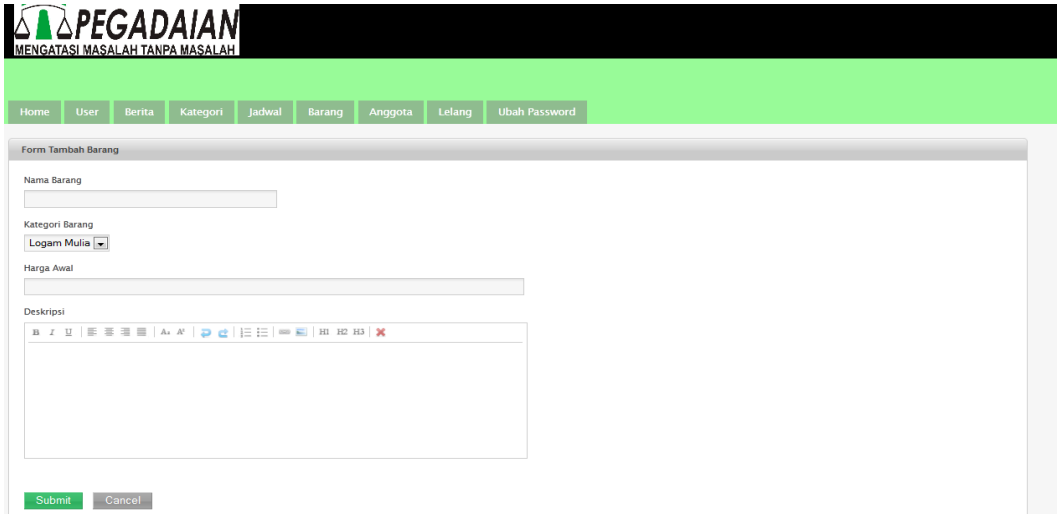

Figure 3. Inputting Goods Data

Item Image Data Input Page

The image below is a display of the image for Inputting item image data. For the image data input form, there is data that must be filled in by an administrator, namely the item image itself. The image of the item image data input can be seen in Figure 4

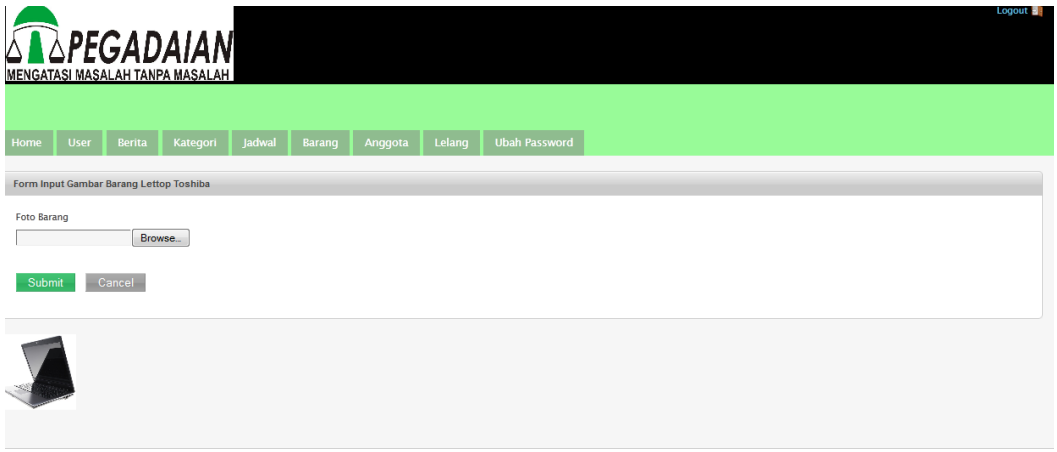

Figure 4. Inputting Item Description Data

Member Registration Page

The image below is a display of the image for registering person data. For the person registration data input form, there is data that must be filled in by a prospective customer, namely username, password, password confirmation, full name, address, email, occupation, and telephone number. The member data input image can be seen in Figure 5

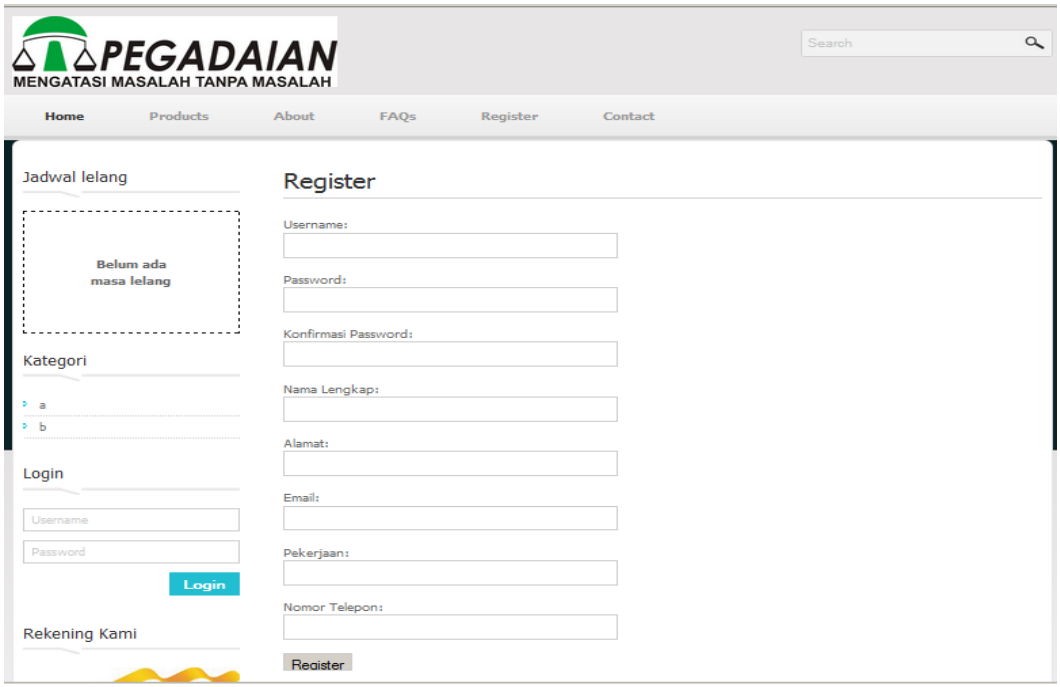

Figure 5. Member Registration

Payment Form Input Page

The image below is a display of the payment form for auction winners to pay their auction results. For the payment data input form, there is data that must be filled in by an auction winner, including which bank the auctioneer transferred the money from, account number, in whose name, the amount transferred, and notes. The payment form input image can be seen in Figure 6

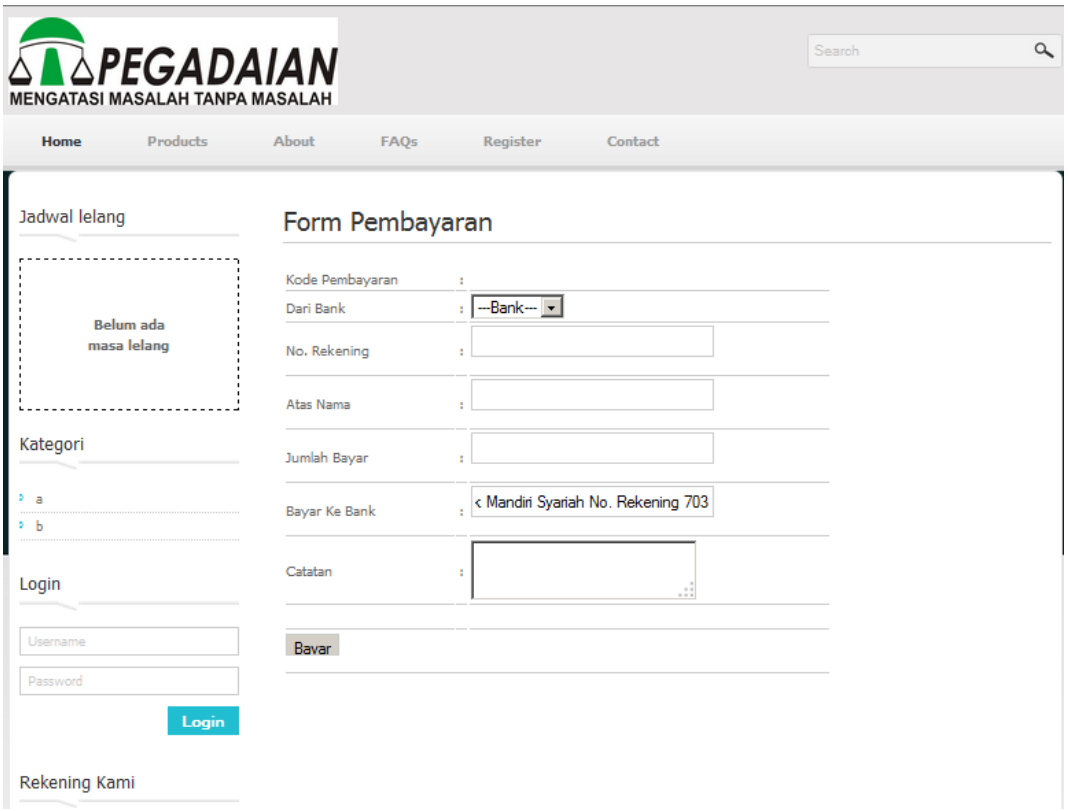

Figure 6. Payment Form

Item Table Page

The image below shows the item table. In the schedule table there are table columns that display the sequence number, item name, item category, item price, and options for the administrator whether to edit data or delete data from the item data. The item table image can be seen in Figure 7

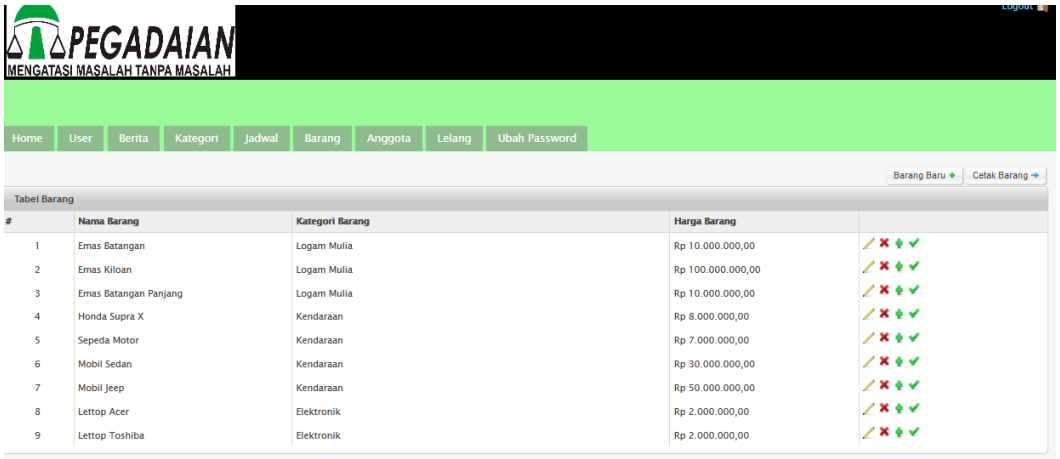

Figure 7. Item Table

Auction Product Page

The image below displays the auction product on the main page, there is a display of several items to be auctioned such as the auction product image, auction product name, and the status of the item. The auction product input image can be seen in Figure 8

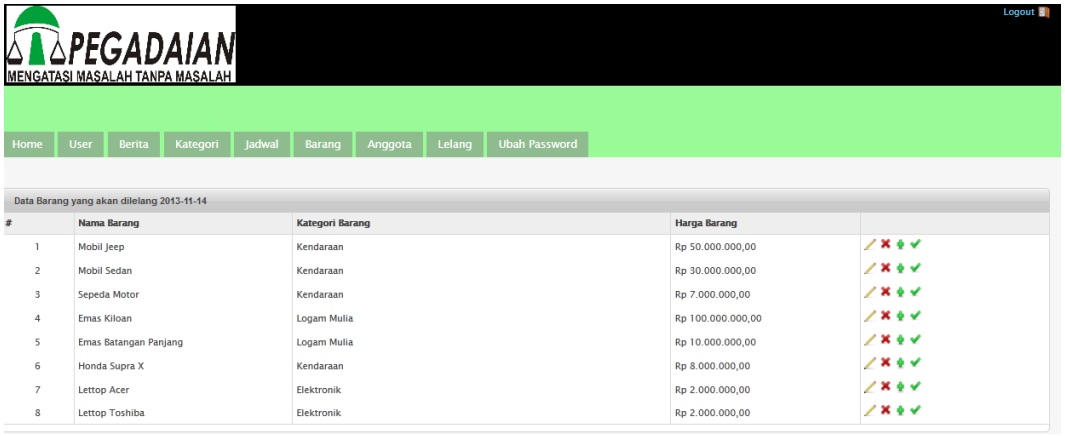

Figure 8. Auction Products

Auction Table Page

The figure below shows the auction table. In the auction table there are table columns that display the sequence number, auction code, member, member name, item name, auction date, auction price, and payment status. The auction table image can be seen in Figure 9

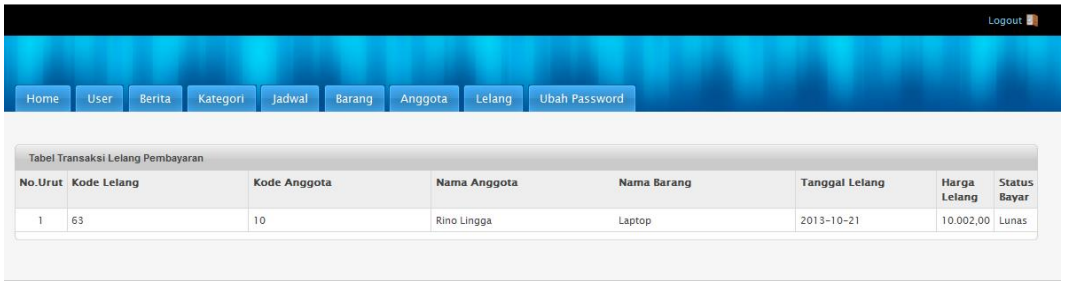

Figure 9. Auction Table

CONCLUSIONS AND RECOMMENDATIONS

With the online auction system at PT. Pegadaian, the auction system that still uses the Bazaar at PT. Pegadaian currently can search for goods and bid on pawnshop auction goods online. The online auction information system at PT. Pegadaian makes it easier for customers and the general public to find out the development of auction information at PT. Pegadaian with the integration of the online auction system.

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