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Desain And Implementation Framework CI (CODE IGNITER) On Sales Information System CV. Kurnia Mebel

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Abstract
CV Kurnia MebeI Indah is a furniture industry engaged in the production and sale of household furniture. The existing sales system is still conventional, namely consumers must come directly to the showroom. This can hinder sales for potential customers who are out of town. In addition, the input of customer data, product data, and transaction data is still not stored properly and neatly because it still uses manual paper records. In this study, the authors built a web-based sales application (e-commerce) using the codeigniter framework. The method used in software development is the waterfall method, which in this method, starts from analyzing needs, system and software design, coding, testing, and program implementation. The result of this research is the implementation of a web-based sales system (e-commerce) at CV. Kurnia Mebel, can be used as a means of sales that can be accessed online anywhere and anytime, the purchase process can be done directly without having to come to the showroom, and can facilitate the storage of customer data, products, and company transactions.

Keywords:
Furniture
CodeIgniter
Online Sales Application

Abstrak
CV Kurnia MebeI Indah merupakan industri furniture yang bergerak di bidang produksi dan penjualan furniture rumah tangga. Sistem penjualan yang ada masih konvensional yaitu konsumen harus datang langsung ke showroom. Hal ini dapat menghambat penjualan calon pelanggan yang berada di luar kota. Selain itu input data pelanggan, data produk, dan data transaksi masih belum tersimpan dengan baik dan rapi karena masih menggunakan pencatatan kertas manual. Pada penelitian ini penulis membangun sebuah aplikasi penjualan berbasis web (e-commerce) dengan menggunakan framework codeigniter. Metode yang digunakan dalam pengembangan perangkat lunak adalah metode air terjun, yang mana dalam metode ini dimulai dari analisis kebutuhan, perancangan sistem dan perangkat lunak, pengkodean, pengujian, dan implementasi program. Hasil dari penelitian ini adalah penerapan sistem penjualan berbasis web (e-commerce) pada CV. Kurnia Mebel, dapat digunakan sebagai sarana penjualan yang dapat diakses secara online dimana saja dan kapan saja, proses pembelian dapat dilakukan langsung tanpa harus datang ke showroom, serta dapat memudahkan penyimpanan data pelanggan, produk, dan transaksi perusahaan.

Kata Kunci : Aplikasi Penjualan Furniture CodeIgniter Online

INTRODUCTION

Technology development and developments in the field of software are progressing very rapidly(Raharja, Setiyono, et al., 2024). In this digital era, the use of technology(Raharja, Pramudianto, et al., 2024) is a field that studies and develops engineering skills with certain steps and techniques (Ramalinda et al., 2024). The value of export growth since the last three years has decreased. BPS said: the value of Indonesian furniture exports in 2016 fell to US$ 1.6 billion from the previous year's US$ 1.9 billion. Meanwhile, 2015 was the beginning of the Asean Economic Community (AEC) or commonly referred to as the free market or AEC. So as to create an easier export-import flow of products. One of the six reasons put forward by (Congge, 2015: 101) Indonesia's obstacles in facing the AEC is Indonesia's weakness in facing the invasion of imports, especially from China.

During this time, CV Kurnia Mebel still uses a simple marketing system, namely the conventional door to door marketing system. The company's biggest source of income is from its loyal customers. So that when the customer switches to another company, the source of income is also reduced. Based on these problems, it is necessary to align the marketing system by applying online marketing techniques in order to survive in following the competition in the furniture industry both in the local and international markets along with technological developments and the times.

In this case study, the author provides a solution to the existing problems by building an online store with the title "Application of Code Igniter Framework on Sales Information System CV. Kurnia Mebel". Where in the design the author uses the codeigniter framework. The advantages of this framework include that in addition to producing a very neat programming structure, it can also speed up and simplify the manufacturing process. In addition, to provide coding standards to make it easier for developers if at any time improvements are needed. By exploring this relationship, this research is expected to provide significant contribution(Hariyanti et al., 2024). For this reason, a web-based information system is needed that can help parties who need the latest reports from each activity.(Febrianto, 2024)

METHOD

A research methodology is a systematic framework or approach used researchers use to plan, conduct, and analyze research. The purpose of research methodology is to ensure the systematic, reliable and competent conduct of research.(Sutisna et al., 2024)

The method used by the author is a qualitative method, a writing method that seeks to present and develop the actual state of the company's activities by collecting data and looking at existing documents at the company.

A. Data Collection Techniques

1) Observation Method

Basically, observation aims to describe activities, individuals, and the meaning of events based on individual perspectives.(Maulinnisaa Tiur R.N, 2024)

The method of collecting data by going directly to the Kurnia Mebel industry, then observing from the initial design stage to the production and finishing process until distribution to consumers.

2) Interview Method

The author obtained the data needed to compile the report by asking questions directly to the owner and several employees of Kurnia Furniture industry.

3) Literature Review

Data collection with literature techniques, namely where the author looks for references and relevant theories to serve as a basis for criteria in discussing a problem found in the research.

B. System Development Model

The research method that the author applies is adjusted based on the needs that exist at the research site, namely CV. Kurnia. The information system is built using the concept of Software Development Life Cycle (SDLC). SDLC has 5 basic stage concepts, namely need analysis, design, program code generation, testing, and support or maintenance. The research stages can be seen in Figure 1.

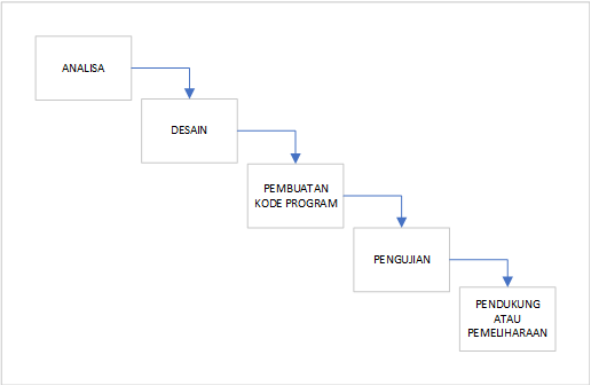


Figure 1
Research Stages

Analysis stage the process of collecting needs is carried out intensively to specify software requirements so that it can be understood what kind of software is needed by the user. The software

design stage starts from the data structure, software architecture, interface representation, and coding procedures. This stage is a representation of the needs analysis stage.

After the design stage is carried out, the next stage is the creation of program code. Where the design must be translated into a software program. The result of this stage is a computer program in accordance with the design that was made at the design stage.

The testing stage focuses on testing the software in terms of logical and functional and ensuring that all parts have been tested. This is done to minimize errors and ensure that the output produced is as desired. The support or maintenance stage is carried out as a software program maintenance process. It is possible for a software program to experience changes when it has been sent to the user. This can happen because of errors that appear and are not detected during testing.

In general, the stages in the waterfall method consist of analyzing needs, system design, implementation & unit testing, system testing and maintenance(Raharja, Agung Rachmat, 2024)

RESULTS AND DISCUSSION

Customer Use Case Diagram

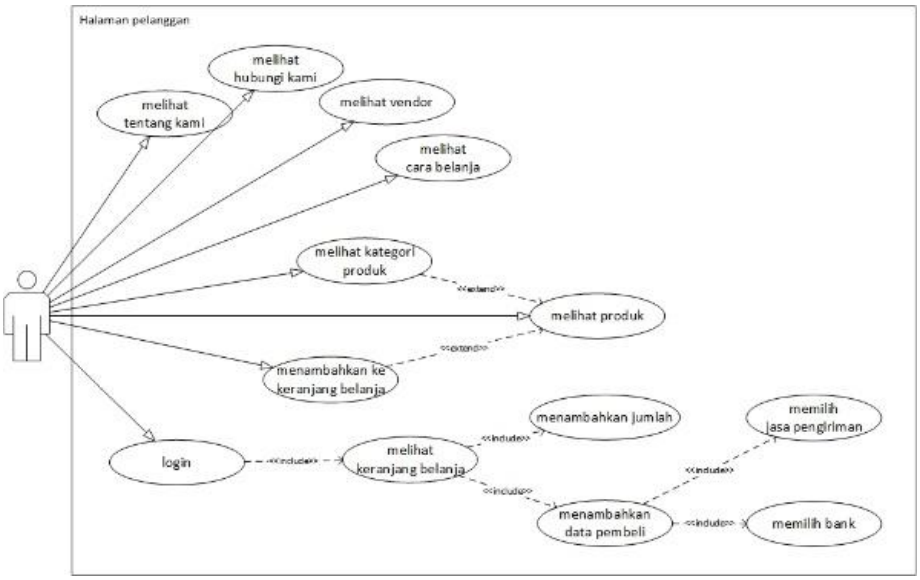


Figure 2
Customer Use Case Diagram

Customers can access about us, contact us, vendors, how to shop, products and product categories. And can add products to the shopping cart without login. If customers want to see the shopping cart, they must log in first. If the customer does not have an account, they must signup first. On the cart page, in addition to adding products and verifying updates, customers can also complete shopping and proceed to the buyer data verification stage. Customers can choose the shipping service and bank transfer and then click finish.

Customer Use Case Diagram

Customer Use Case Diagram can be seen in Figure 3

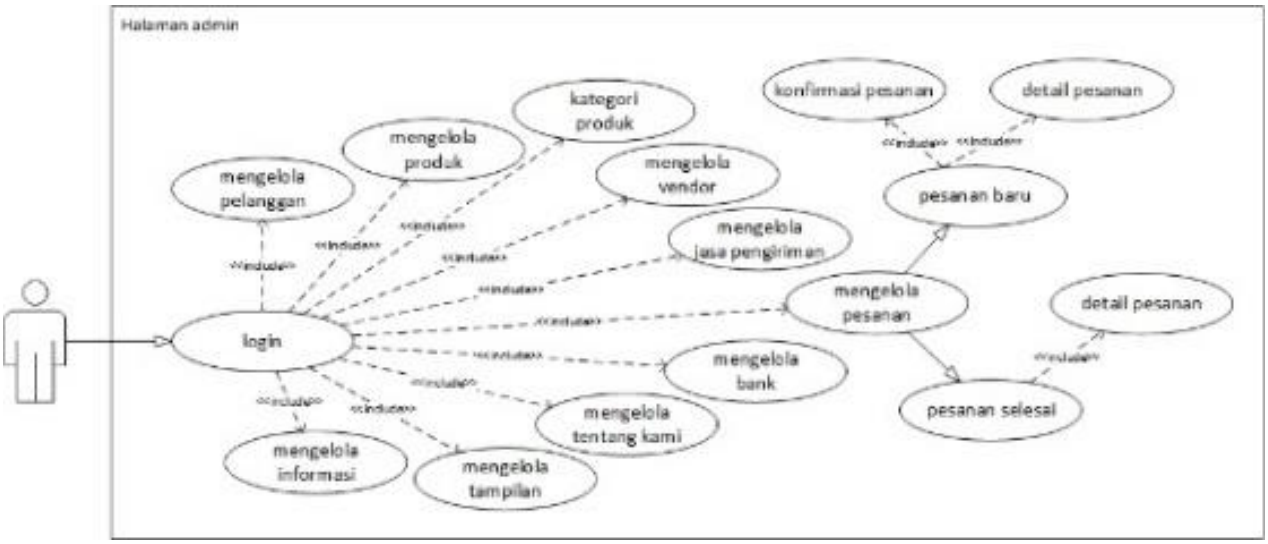


Figure 3
Use Case Diagram Admin

Admin before entering the main admin page and can access all pages, admin login first. After a successful admin login, the admin can access the customer page, product page, product category page, vendor page, delivery service page, order page, bank page, about us page, display page, and information page. To be able to confirm an order, the admin must access the order page, then the new order. To be able to see the details of a new order, the admin must access the order, then order details. To view the details of a completed order, the admin must access the completed order and order details pages.

Activity Diagram

Activity Diagram (AD) is a diagram that describes the workflow or activity of a system or business process. The following is an example of Activity Diagram of Kurnia Mebel web sales application. Activity Diagram can be seen in Figure 4.

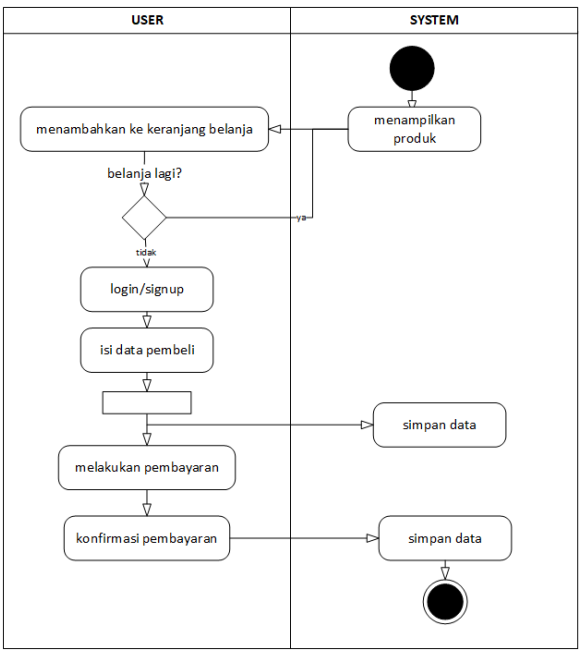


Figure 4
Activity Diagram

The flow of the system running activity diagram of Kurnia Mebel web sales transaction application: starting from the system displays furniture products, then customers can add to the shopping cart according to the desired product. Customers can add to the shopping cart again without having to log in first. If the shopping has been completed, the customer will be directed to the login/signup form. If the customer has logged in, the customer will be directed to the buyer's data content page then the system will save the data. Then the buyer makes a product payment. After making a payment, the buyer confirms the payment, then the system will save the transaction data.

Class Diagram Class Diagram is a static model that describes the structure and description of classes that contain class names, attributes, and operations or methods. Here is an overview of the class diagram: Class Diagram can be seen in Figure 5.

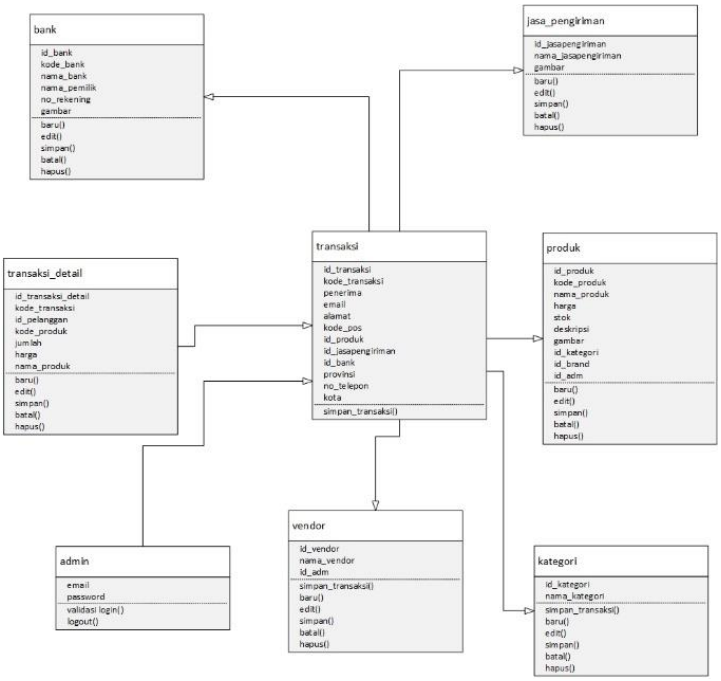


Figure 5
Class Diagram

Deployment Diagram

Deployment diagram is what shows the layout of a system and shows the configuration when the application is run, displaying the software parts used to implement a system. Deployment diagrams are used in the early part of the system design process to document the physical architecture of a system. The following is an overview of the deployment diagram which can be seen in Figure 6

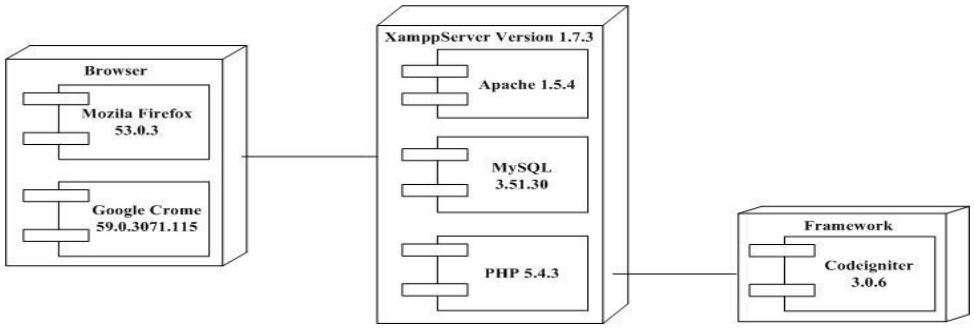
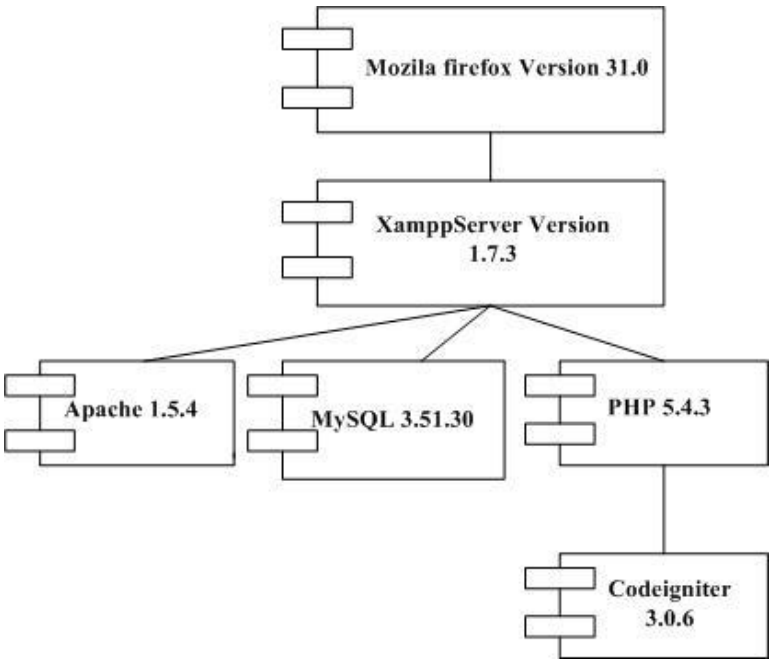


Figure 6
Deployment Diagram

Component Diagram

Component diagrams describe the structure, relationships and dependencies (depedencies) between software components. Components can be data files, exe files, modules containing code, tables, source code, binary code and interfaces which are a collection of services provided by a component for other components. The following is a component diagram to describe the process structure in the information



system application being built. Component Diagram can be seen in Figure 7.

Figure 7
Component Diagram

User Interface

User interface is an interface design or description of the display used in the application that will be made as a function for interaction between users and the system.

The design of the web page interface on the sales information system at CV. Kurnia Furniture is divided into two, namely the admin page and the customer page, as for the specifications of the web design as follows:

a. *Visitor Main Page*
   The design of the visitor's main page interface that has been built can be seen in Figure 8:

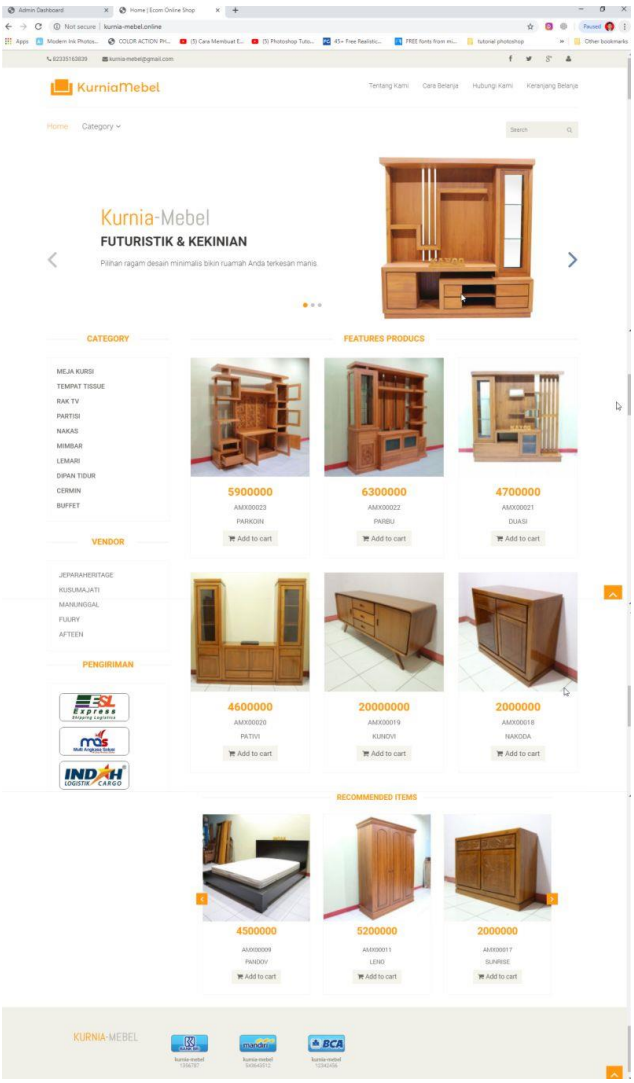


Figure 8
Visitor Home Page

Shopping Cart Page

The design of the visitor shopping cart interface that has been built can be seen in Figure 9:

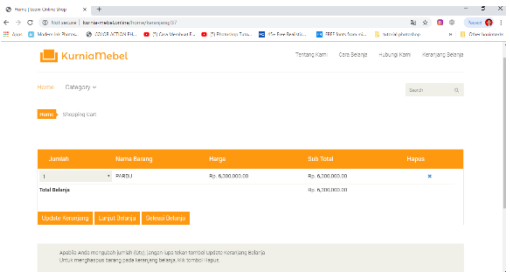


Figure 9
Shopping Cart Page

Payment Page

The design of the visitor payment interface that has been built can be seen in Figure 10:

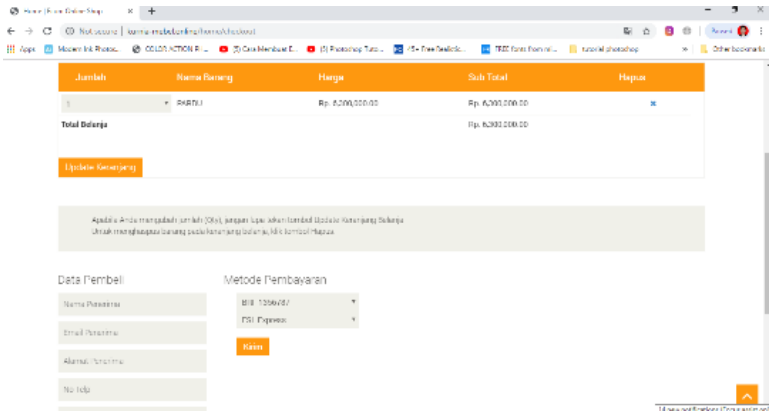


Figure 10
Payment Page

Admin Login Page

The interface design of the login page that has been built can be seen in Figure 11:

Figure 11
Admin Login Page

Product Data Menu Page

The interface design of the product data menu page that has been built can be seen in Figure 12:

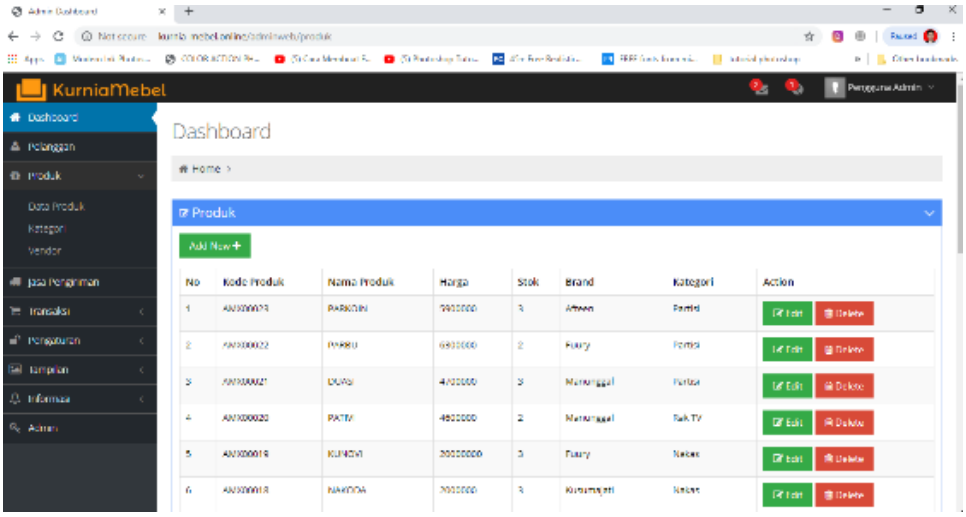


Figure 12
Product Page (Admin)

COMCLUSION

Based on the results of research at CV. Kurnia Mebel and in making a website, the author concludes several things, among others:

1. By using a web-based sales system, it can expand the marketing area so that the potential to reach the market becomes wider.
2. By using a computerized system in the form of a website can help make it easier for visitors both in getting information and ordering online products CV. Kurnia Furniture, as well as making it easier to do data processing for the admin.
3. By making the web as a marketing and promotional media, it can be a media campaign for the public in general and customers in particular that CV. Kurnia Mebel is a teak furniture manufacturer.

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