

Sewing Service Order Information Web-Based (a Case Study at Iendandy Modiste)

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ABSTRACT

Ordering sewing services is a crucial fashion industry process requiring efficiency and easy customer access. It aims to make customer easier to place orders and improve operational efficiency for sewing service providers. Through the implementation of this system, customers can easily choose and order sewing services according to their needs through a responsive and easy-to-use web platform. Sewing service providers will also benefit from this system by improving the order process, managing orders more organized, and increasing customer satisfaction. The design of this system is built using PHP and MySQL programming languages as databases. Workflow design on this system uses DFD (Data Flow Diagram) and ERD (Entity Relationship Diagram). With this system, it can help Iendandy Modiste in increasing bookings.

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I. Background

Information systems and computer technology are developing rapidly in line with the great need for information because computers are a medium that can provide convenience for humans in completing a job. Changes and dynamics of society that are increasingly rapid towards the times and technology require accurate, fast, and precise information quality [1].

The development of this information system is advantageous, especially in the field of business, including the clothing sewing service business. With the development of this information system, the process of ordering sewing services can be done online so that customers can order without having to come to the place, and it can be done anytime and anywhere.

Iendandy Modiste is a sewing business that accepts orders for making women's clothing. The tailor, located on Mata Ie Street, Darul Imarah Sub-District, has been established since 2010. So far, sewing services at Iendandy Modiste still use a manual system in the ordering process so that customers place orders by coming directly to Iendandy Modiste. Another obstacle is that customers need help finding the existence of Iendandy Modiste, which is far from the city center.

II. Basic Theory

A. Information Systems

An information system is a system that provides information for management in making decisions and also carrying out company operations, where the system is a combination of humans, technology, and procedures that are organized and intended to organize processes for certain transactions. Several components characterize the information system, namely the first input component, which is the data entered into the information system, and the second model component processes the data contained in the database to produce the desired output. This component includes procedures, logic, and mathematics. The third is output information from the processed data. The



fourth technology component is used in the information system to receive input, store, access data, and produce and receive output; the fifth is the database component, which is a collection of stored and interconnected data; and the sixth control component, designed to overcome interference with the system.

Iendandy Modiste is an experienced women's fashion tailor with the potential to have extensive marketing. However, the marketing system currently needs to be revised, impacting the narrow range of orders. In addition, recording transactions and measurements are still manual, so if a customer places an order, they must come to meet the tailor. For this reason, this Tailor Service Information System simplifies the computerized ordering process and can be done anywhere and anytime. The output produced from this research is a website-based application.

B. Laravel

Laravel is a PHP framework released under the MIT license, built with the MVC (model view controller) concept. Laravel is an MVP-based website development written in PHP designed to improve software quality by reducing initial development and maintenance costs and to improve the experience of working with applications by providing expressive, straightforward, and time-saving syntax [2].

The benefits of Laravel for the website development process:

1. First, the website becomes more scalable.
2. Second, some namespaces and views help you to organize and manage website resources.
3. Third, the development process becomes faster, saving time because Laravel can combine several components from other frameworks to develop websites.

C. PHP

PHP is a programming language that is often inserted into HTML. PHP itself comes from the word Hypertext Preprocessor. This programming language uses a server-side system. Server-side programming is a programming language where the script/program will be run/processed by the server. Its advantages are that it is easy to use, simple, and easy to understand and learn. The PHP programming language helps you to develop web-based applications that are quite complex, reliable, and fast [3].

Some PHP functions:

1. Shorten the order of HTML and CSS
2. Data input
3. Cookie and Session Management
4. Text Compress

D. Bootstrap

Bootstrap is one of the HTML, CSS, and JS frameworks used to create websites that are responsive or can adjust their layout display based on the viewport size of the accessing device, ranging from smartphones, tablets, and PC screens.

Bootstrap is a framework created using the language of HTML and CSS but also provides javascript effects built using jquery. Bootstrap has provided a collection of basic class interface components that have been designed in such a way as to create an attractive, clean, and lightweight appearance. In addition, bootstrap also has a grid feature that functions to organize layouts that can be used very easily and quickly. We are also given the freedom to develop the appearance of a website that uses Bootstrap, namely by changing the appearance of Bootstrap by adding our own classes and CSS [4].

Many bootstrap functions can be used for a website. Here are the functions:

1. Speed up the process of creating a front end on a website.
2. Displays a more modern side of the website.

3. The appearance of Bootstrap is responsive, so it is very supportive of all types of resolutions.
4. Bootstrap websites are generally lighter because they are more structured.

E. MySql

MySQL is a database software that is a relational data type which means MySQL stores its data in the form of interconnected tables. MySQL is a database system used for the web that runs on a server; MySQL can also be used for small and large applications. The advantage of MySQL is that besides being fast and easy to use, it is also reliable [5].

MySql has functions to create, manage and access databases in a structured and automated manner. The most prominent ability of MySQL lies in its ability to collect data in a String (text-based) that can be accessed privately or publicly on the web.

F. Data Flow Diagram

A data flow diagram (DFD) is called a data flow diagram (DAD). DFD is a logical model of data or processes created to describe where the data comes from and goes out of the system, where the data is stored, what methods produce the data, and the interaction between the stored data and the processes imposed on it. Data objects in DFD depictions are usually represented using labeled arrows, and transformations are typically represented using circles which are often referred to as bubbles [6].










	Yourdan	C.Gane dan T.Sarson
Alliran data / Data flow		
Proses / Process		
Simpanan data / Data store		
Kesatuan luar, batas sistem / External entity, boundary		
Alliran fisik / Material flow		

Fig. 1. Logo DFD

The following are the stages of design using DFD:

1. Creating DFD Level 0 or often called Context Diagram DFD Level 0, describes the system to be created as a single entity that interacts with people and other methods. DFD Level 0 is used to describe the interaction between the system to be developed and outside entities.
2. DFD level 1 describes the modules that exist in the system to be developed. DFD level 1 is the result of a breakdown of DFD level 0 or a context diagram that was previously made.
3. Creating DFD levels 2, 3, and so on. The modules in DFD level 1 can be broken down into DFD level 2. Which modules must be broken down in more detail depends on the level of detail of the module [7].

G. Entity Relationship Diagram

An entity Relationship Diagram (ERD) is a form of diagram to explain the relationship between data in a database based on basic data objects that have relationships between relationships. ERD is used to structure data and relationships between data and to describe it, notations, symbols, charts, and so on are used [8]. Here are some functions, benefits, or roles of ERD, including:

1. An overview of the system to be created to facilitate developers.

2. Make it easy to analyze and find out system changes from scratch.
3. ERD to model data structures and relationships between data, which are described using several stations and symbols.






Notasi	Keterangan
	Entitas, yaitu kumpulan dari objek yang dapat diidentifikasi secara unik.
	Relasi, yaitu hubungan yang terjadi antara satu atau lebih entitas. Jenis hubungan antara lain: satu ke satu, satu ke banyak, dan banyak ke banyak.
	Atribut, yaitu karakteristik dari entity atau relasi yang merupakan penjelasan detail tentang entitas.
	Garis, hubungan antara entity dengan atributnya dan himpunan entitas dengan himpunan relasi.
	Input/output data, yaitu proses input/output data, parameter, informasi.

Fig. 2. Logo ERD

III. System Design

The workflow design of this sewing service ordering system is described using a Data Flow Diagram (DFD), which is used to describe the data flow and processes that occur in a system, and Entity Relationship Diagram (ERD) to describe the tables that exist in a system. *Data Flow Diagram*.

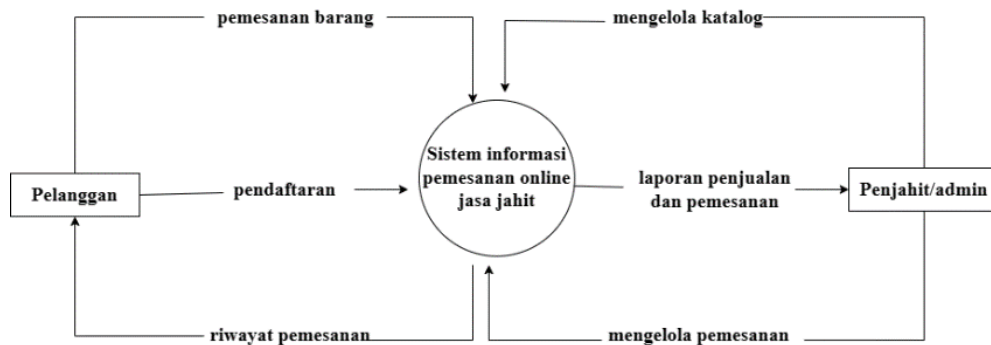


Fig. 3. DFD level 0 image

In this DFD, there are two entities, namely, the customer entity and the Tailor / Admin entity. The customer entity can register, order goods and collect receipts if the payment has been successfully made and the order has been completed. Then there is an admin entity that can manage catalogs, manage orders, and can view sales and order reports.

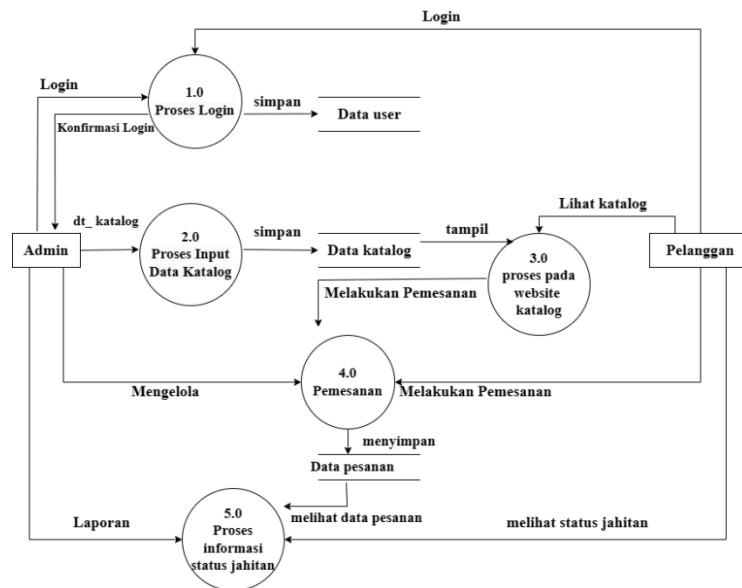


Fig. 4. DFD level 1 image

1. Admin and users perform the login process; the data that has been logged in is stored in the user data.
2. Admin processes catalog data input and saves it into catalog data; data that has been stored in the catalog data is displayed and processed on the catalog website.
3. Users see a list of catalogs on the catalog website process and can also place orders on the catalog.
4. The user places an order, then it is stored in the order data.
5. Admin creates a stitch status information process report, and users can see the stitch status.

A. Entity Relationship Diagram

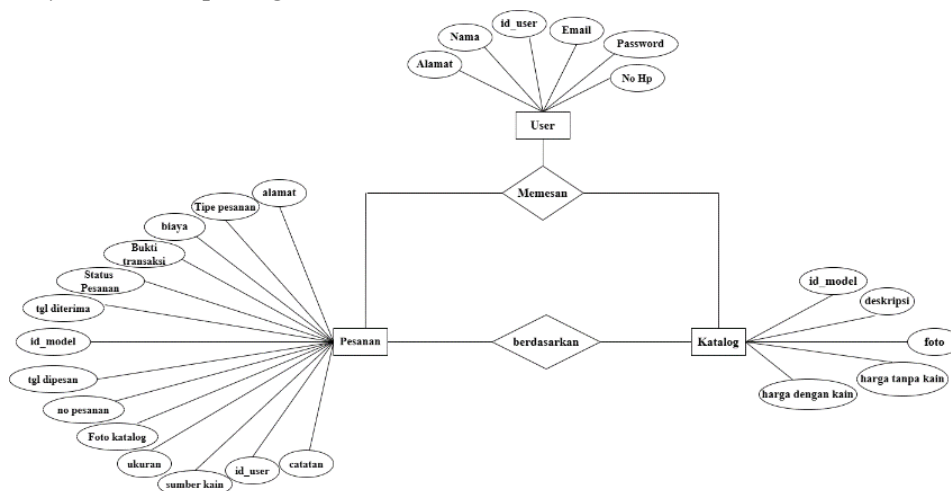


Fig. 5. ERD Image

IV. Results and Discussion

1. Login View

To enter the web page, the customer must first log in.

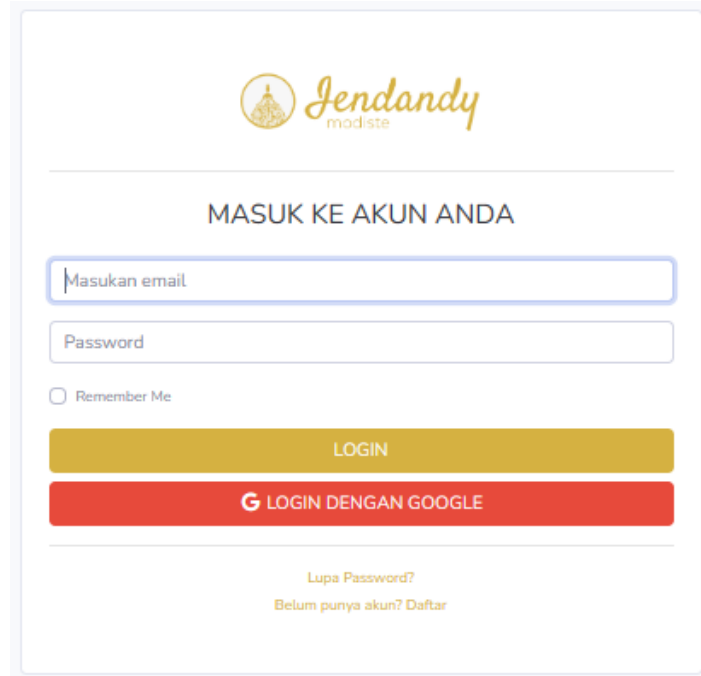


Fig. 6. Login Display image

2. Registration view

When you do not have an account, customers must register first to register an account.

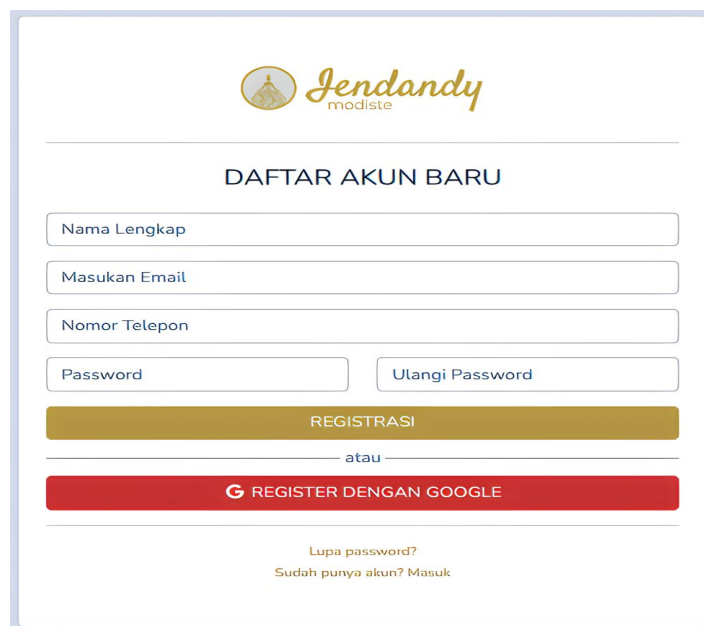


Fig. 7. Registration display image

3. Home view

The home display displays photos of clothes that have been sewn, and on this page, there is a message menu for clothing models that are already available.

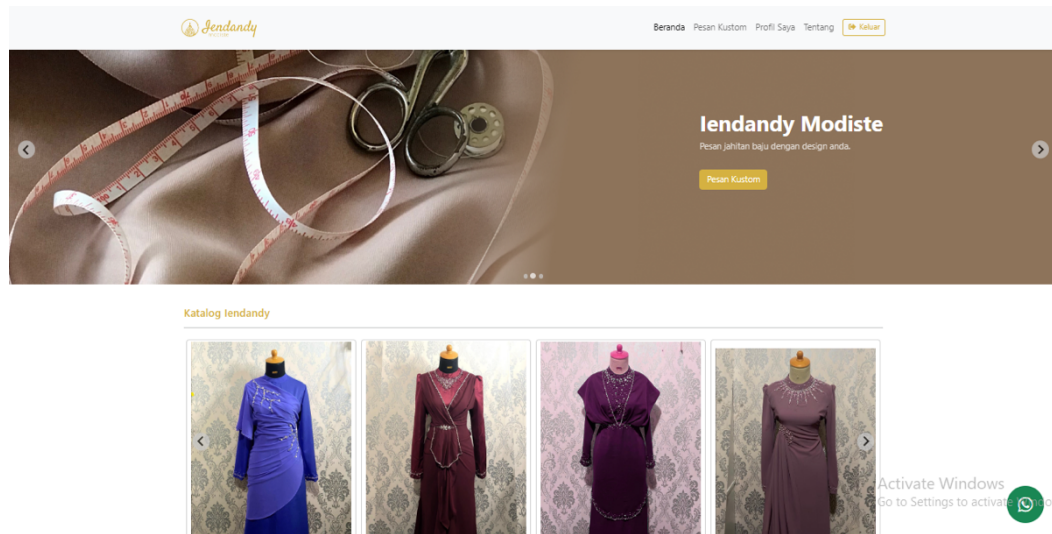


Fig. 8. Home view image

4. Catalog Detail View

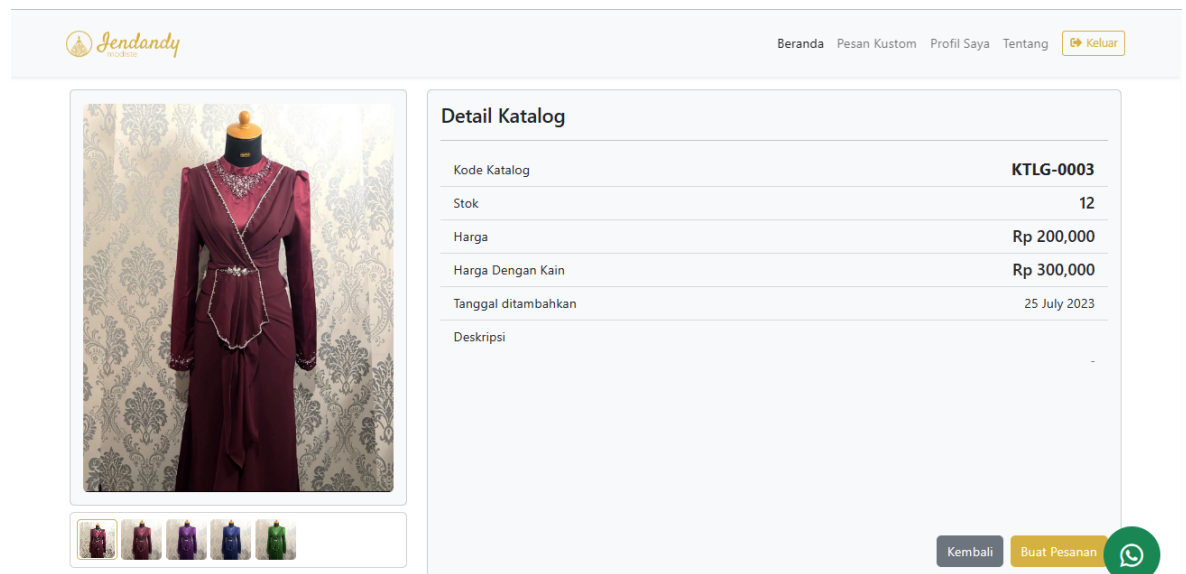


Fig. 9. Catalog detail view

5. Measurement Guide Display

The measurement guide is to show how to measure custom according to the image.



Fig. 10. Measurement Guide Display

6. Display Orders Ordered at Home

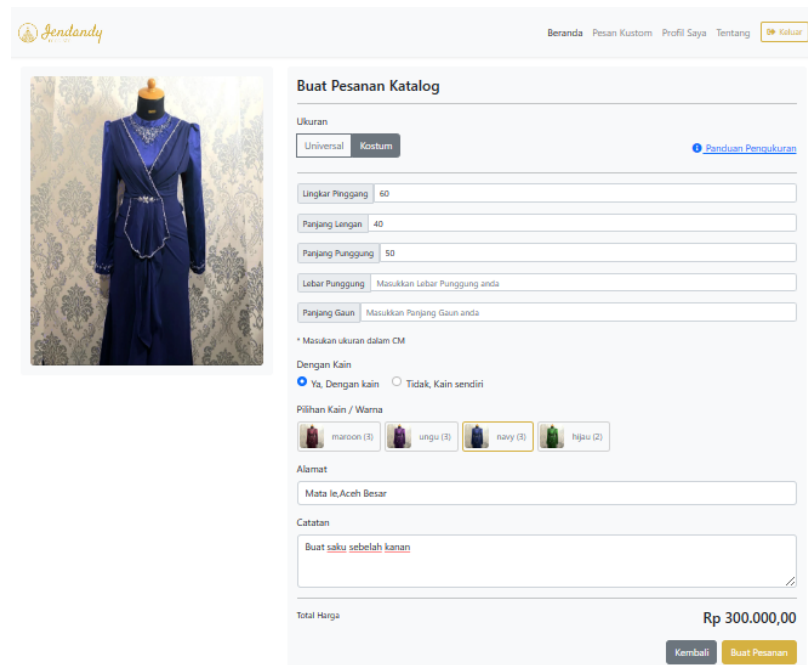


Fig. 11. Display orders

Buat Pesanan Katalog

Ukuran
 Universal Kostum [Panduan Pengukuran](#)

S - Lingkar Badan : 94 CM | Panjang Baju : 138 CM
 M - Lingkar Badan : 98 CM | Panjang Baju : 138 CM
 L - Lingkar Badan : 102 CM | Panjang Baju : 140 CM
 XL - Lingkar Badan : 106 CM | Panjang Baju : 142 CM
 XXL - Lingkar Badan : 110 CM | Panjang Baju : 148 CM

Dengan Kain
 Ya, Dengan kain Tidak, Kain sendiri

Pilihan Kain / Warna
 maroon (3) ungu (3) navy (3) hijau (2)

Alamat
 Mata le, Aceh Besar

Catatan
 Buat saku sebelah kanan

Total Harga **Rp 300.000,00**

[Kembali](#) [Buat Pesanan](#)

Fig.12. Display of Orders Ordered at Home

7. Custom Model Order Display

Here the customer can order clothes with the desired model by uploading the clothing model; here, the customer fills the size of the clothes with two options: universal or custom sizes. Then the customer can choose an order using their own cloth or from a tailor. Furthermore, customers can choose the color of the fabric available. If there is no desired color, customers can choose their own fabric.

Buat Pesanan Kostum

Ukuran
 Universal Kostum [Panduan Pengukuran](#)

S - Lingkar Badan : 94 CM | Panjang Baju : 138 CM
 M - Lingkar Badan : 98 CM | Panjang Baju : 138 CM
 L - Lingkar Badan : 102 CM | Panjang Baju : 140 CM
 XL - Lingkar Badan : 106 CM | Panjang Baju : 142 CM
 XXL - Lingkar Badan : 110 CM | Panjang Baju : 148 CM

Dengan Kain
 Ya, Dengan kain Tidak, Kain sendiri

Warna

Alamat
 Masukkan alamat anda

Catatan
 Tinggalkan catatan

*Harga pesanan kostum akan dikalkulasikan oleh penjahit dan akan di update pada data pesanan anda.

[Kembali](#) [Buat Pesanan](#)

Fig. 13. Custom model order

Buat Pesanan Kostum

Ukuran: Universal Kostum [Panduan Pengukuran](#)

Lingkar Pinggang: Masukkan Lingkar Pinggang anda

Panjang Lengan: Masukkan Panjang Lengan anda

Panjang Punggung: Masukkan Panjang Punggung anda

Lebar Punggung: Masukkan Lebar Punggung anda

Panjang Gaun: Masukkan Panjang Gaun anda

* Masukkan ukuran dalam CM

Dengan Kain: Ya, Dengan kain Tidak, Kain sendiri

Warna:

Alamat: Masukkan alamat anda

Catatan: Tinggalkan catatan

*Harga pesanan kostum akan dikalkulasikan oleh penjahit dan akan di update pada data pesanan anda.

[Kembali](#) [Buat Pesanan](#)

Fig.14. Custom Model Order Display

8. Order Detail Display

When a customer clicks Create Order on the order page, the order details display will automatically appear. Next, to make a payment, click the pay now menu.

Terima kasih, Pesanan anda berhasil dibuat. silahkan selesaikan pembayaran anda.

Detail Pesanan

[← Kembali](#)

No Pesanan	KTLG-0003-169051823-2023
Status Pesanan	MENUNGGU PEMBAYARAN
Tipe Pesanan	KATALOG
Referensi Katalog	KTLG-0003
Harga Pesanan	Rp 300,000
Tanggal dipesan	28 Jul 2023
Tanggal diterima	-
Alamat	Mata le,Aceh Besar
Catatan	Buat saku sebelah kanan

Pembayaran

Status pembayaran: Belum Diterima

Detail Baju

Tipe Ukuran	UNIVERSAL
Ukuran	S
Termasuk Kain	Ya

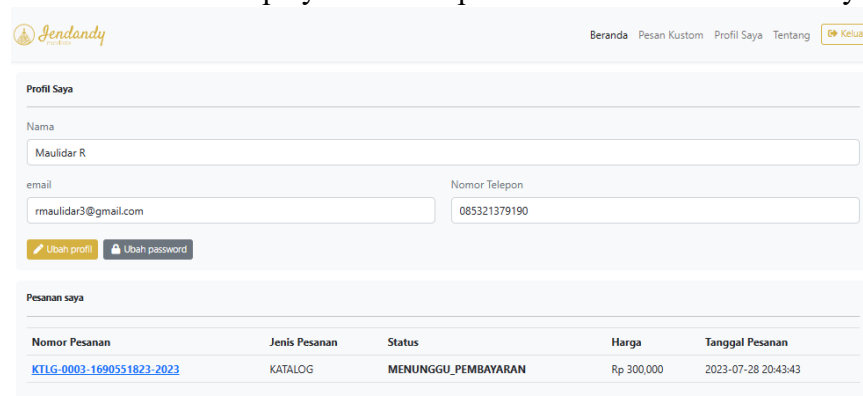
[Bayar Sekarang](#) [Batalkan pesanan](#)

NAVY

Fig.15. Order Details View

9. Profile Display

This menu will display consumer profiles and show order history.



Nomor Pesanan	Jenis Pesanan	Status	Harga	Tanggal Pesanan
KTLG-0003-1690551823-2023	KATALOG	MENUNGGU PEMBAYARAN	Rp 300,000	2023-07-28 20:43:43

Fig.16. Profile View

10. Dashboard Display

The dashboard view has several features, namely, order data reports, managing orders, and sales reports.

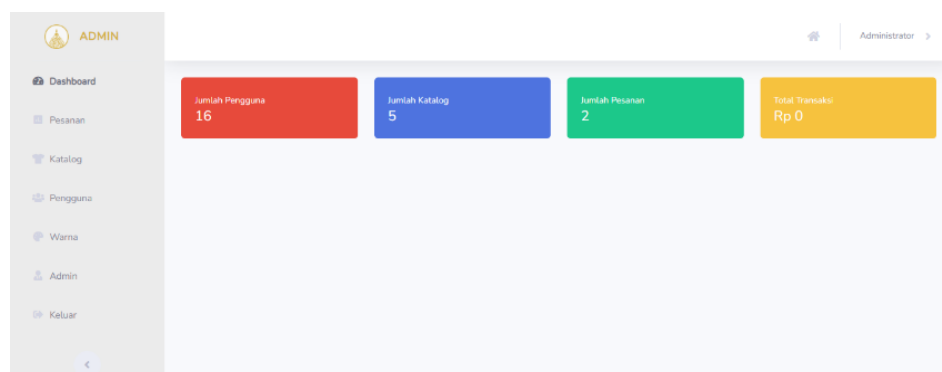


Fig. 17. Dashboard display

V. Conclusions And Suggestions

A. Conclusion

The following conclusions can be drawn based on the sewing service information system that has been created.

1. Web-based sewing service ordering information system is used to order customer sewing services.
2. From the user's side, this website can order clothes according to the catalog or custom and check the order status. While from the admin side, this website can view order data, change order status, and confirm payment.

B. Suggestions

Suggestions that can be given for development is this website has not collaborated with the bank in making payments.

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