



Sales System in the Endocell Mobile Phone Business Using the CRM (Customer Relationship Management) Method) in Kompe Berangin Village, Cerenti District

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ABSTRACT

In order to increase sales and customer service at the Endocell Store in Kompe Berangin Village, this study intends to create a web-based application using a Customer Relationship Management (CRM) methodology. With the use of this application, customers can order products more conveniently,[1] obtain comprehensive product information, and offer feedback and recommendations. The findings of this study produce integrated sales apps that boost client connections, promotions, and operational effectiveness, giving businesses a competitive edge in a crowded market[2]. Customer satisfaction, operational efficiency, and sales performance have all increased with the adoption of web-based apps combined with a CRM strategy. Similar businesses can try to improve their business success by using this solution as a guide[3].

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1. Introduction

Customer relationship management, or CRM, is a crucial business strategy for building relationships with customers. Occasionally, business owners mistreat customers, which is obviously a disadvantage while trying to achieve business success. This is more crucial in an era of increasingly competitive business, where customer purchasing decisions are based on product quality, competitive pricing, and satisfactory customer service[4][5].

One way to maintain a good relationship with customers is to apply the CRM concept. This concept emphasizes how important it is to get to know new customers, strengthen relationships with existing customers, and increase customer satisfaction. This creates a strong bond between the company and its customers that might increase loyalty[6][7].

An Endocell mobile company in Kompe Berangin Village is having a lot of issues running its business. Customers that live distant from the company's location find it challenging to place product orders because there is little opportunity for direct communication. Additionally, the absence of effective tools makes managing customers and promoting products more difficult[8]. An app would be a practical answer in this situation. Customers will be able to effortlessly order products, see product information, and manage their accounts with the help of this application[9].

Customers can place orders practically and effectively with this application without having to contact the seller directly or pay a lot of money[10]. The app also makes it easier for users to obtain product information, which helps them make better decisions about what to buy[11]. Furthermore, this application will enhance overall customer service by enabling the storage and search of client data[12].

By implementing this web-based application, it is hoped that Endocell's mobile business can overcome the various obstacles it faces, increase operational efficiency, and improve promotion and customer management. In an era of tight business competition, this application can be a competitive advantage for the Endocell cell phone business in Kompe Berangin Village and its surroundings[13]. Therefore, the author intends to build a web-based application that integrates ordering, promotions and customer service with CRM methods to support Endocell's mobile business in facing its business challenges[14].

2. Research Method

The methods used to collect data for the Sales System in the Endocell Cell Phone Business Using the CRM (Customer Relations Management) Method in Kompe Berangin Village[15], Cerenti District include:

1. Library Method

Data collection is done by searching and reading from thesis reference books, journals either in print media, internet media or sources related to online sales using the CRM method and the program to be researched as a reference.

2. Interview Study

Interviews, namely the author conducted interviews with Endocell shop owners and employees to obtain information in the form of data on goods sold at Endocell shops.

3. Observation Method

The observation method is used to study and find out directly about the location of the Endocell shop. This data collection was carried out by directly observing problems related to online sales using the CRM method.[16]

Research Flow Diagram

The research flow diagram is shown in the following figure:

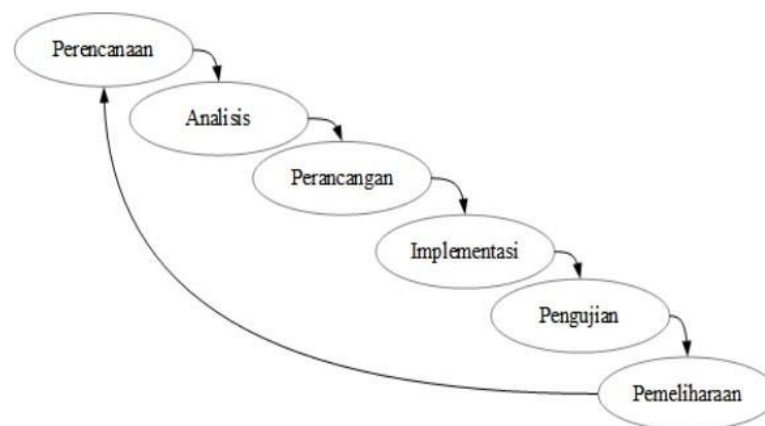


Figure 1. Research Flow Diagram

1.1 Implementation

Based on the author's observations, the sales process has so far been carried out manually, for example in the form of buyers coming to meet sellers directly at the place where the business is located. Less effective for consumers who are quite far away or do not have time to come directly to the seller to buy the product[17].

Analisa Sistem Yang Diusulkan

Based on the analysis of the current system, a new system can be proposed. The following is a flow chart of the proposed sales system.

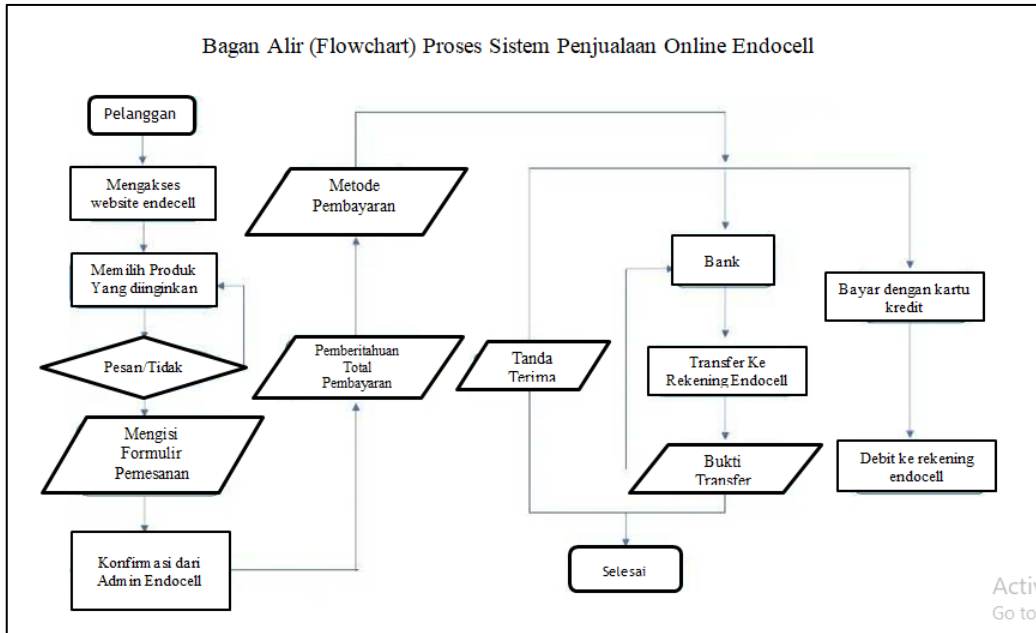


Figure 2. Sales System Flow Chart

Usecase Diagrams

The following is a use case diagram of the system to be built:

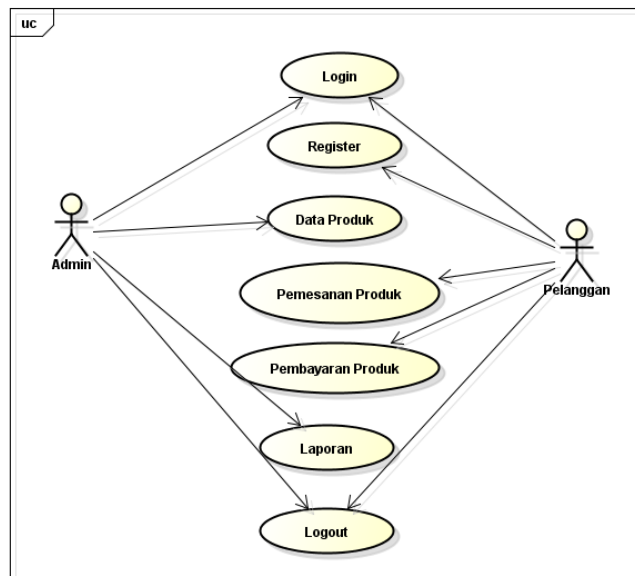


Figure 3. Usecase Diagrams

Activity Diagrams

Activity Diagram Customer Orders Products

The following is a figure activity diagram for customers ordering products, for more details as follows.

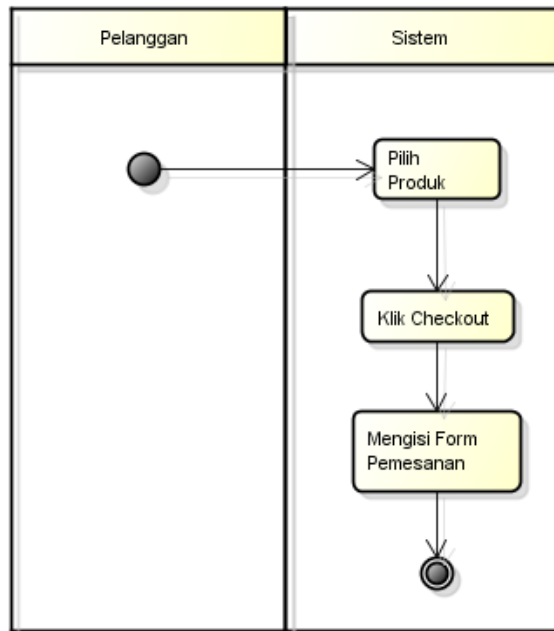


Figure 4. Activity Diagram Customer Orders Products

Activity Diagram Customers Pay for Products

The following is a figure activity diagram of customers paying for products, for more details as follows.

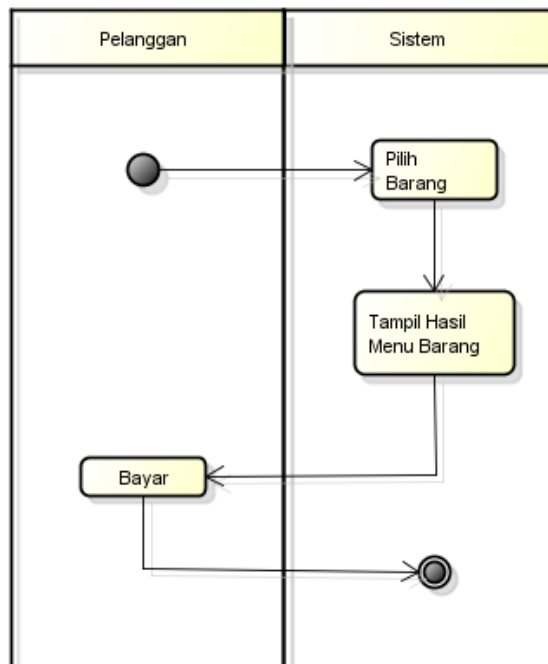


Figure 5. Activity Diagram Customers Pay for Products

Sequence Diagrams

Sequence Diagram Customer Orders Products

The following is the Sequence Diagram. Customers order products from the Sales System in the Endocell Cell Phone Business.

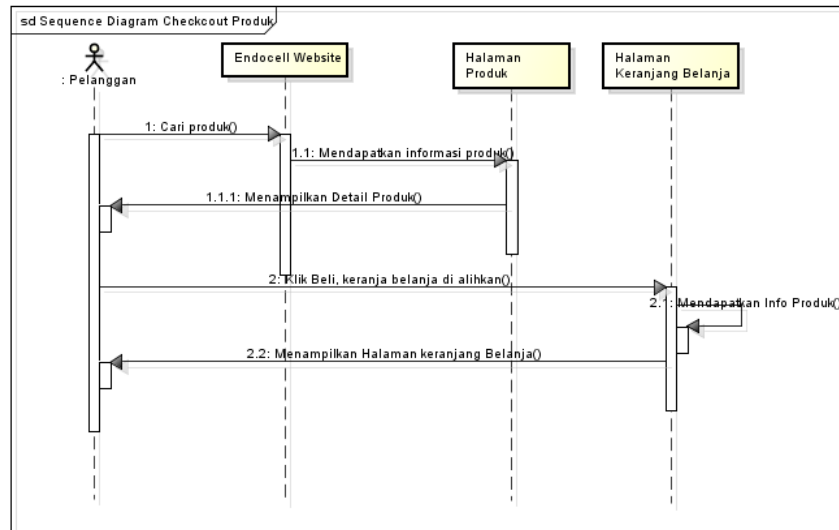


Figure 6. Sequence Diagram Customer Orders Products

Sequence Diagram Customers Pay for Products

The following is the Sequence Diagram: Customers pay for products in the Sales System in the Endocell Cell Phone Business.

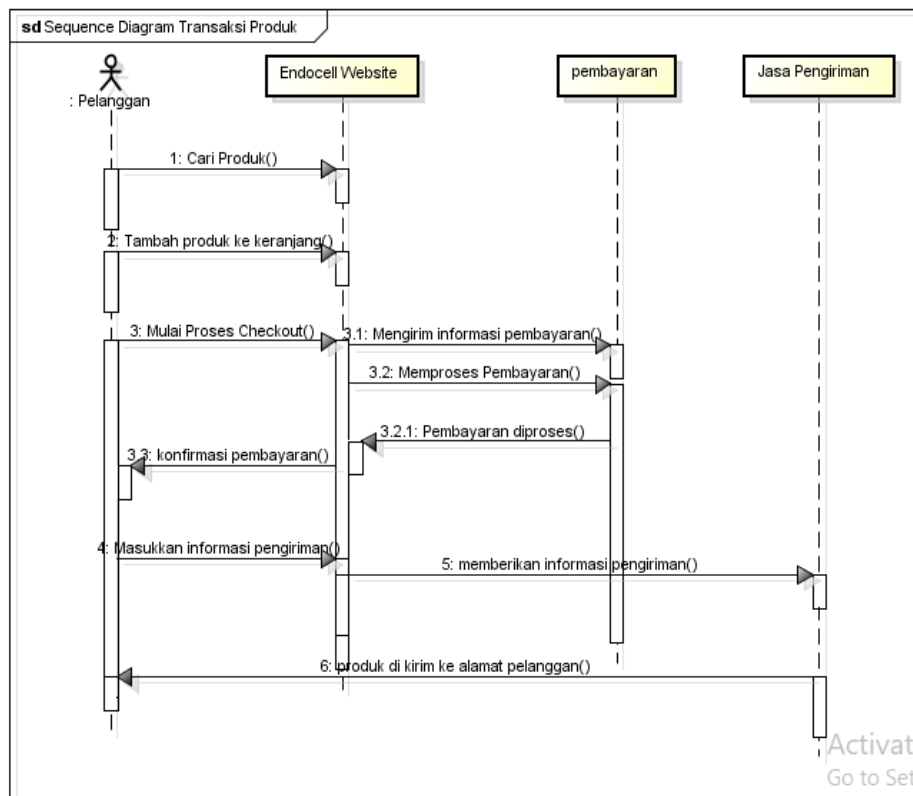


Figure 7. Sequence Diagram Customers Pay for Products

Class Diagrams

This class diagram aims to provide an overview of the relationships between the tables in the database. Each class has attributes and methods or functions according to the process that occurs.

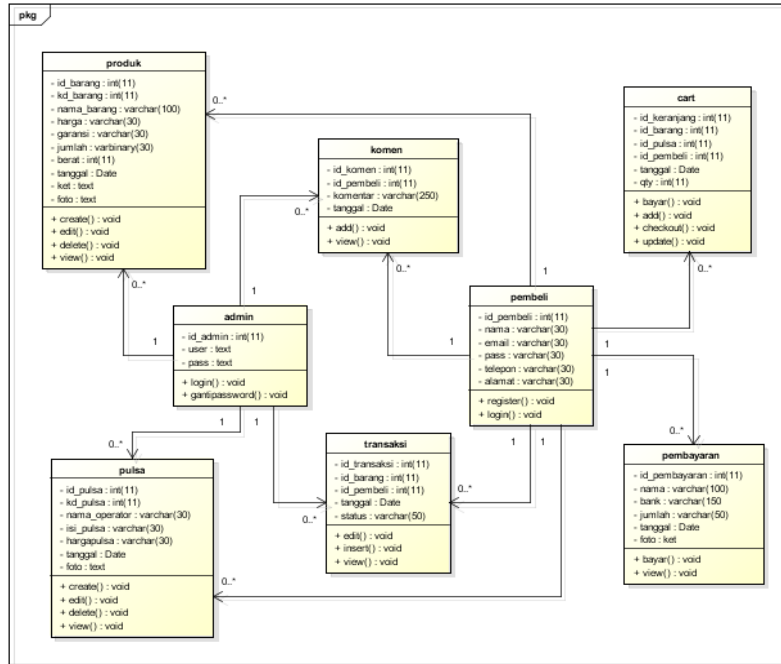


Figure 8. Class Diagrams

System Design

The system design stage aims to make it easier to design a sales system for the Endocell cellphone business using the CRM method in Kompe Berangin village, Cerenti subdistrict. The design starts from hardware design, software design, then testing the proposed system.

Product Display Page

On this page, customers can see what products are being sold and information about the prices and discounts given. The following is the product display page:

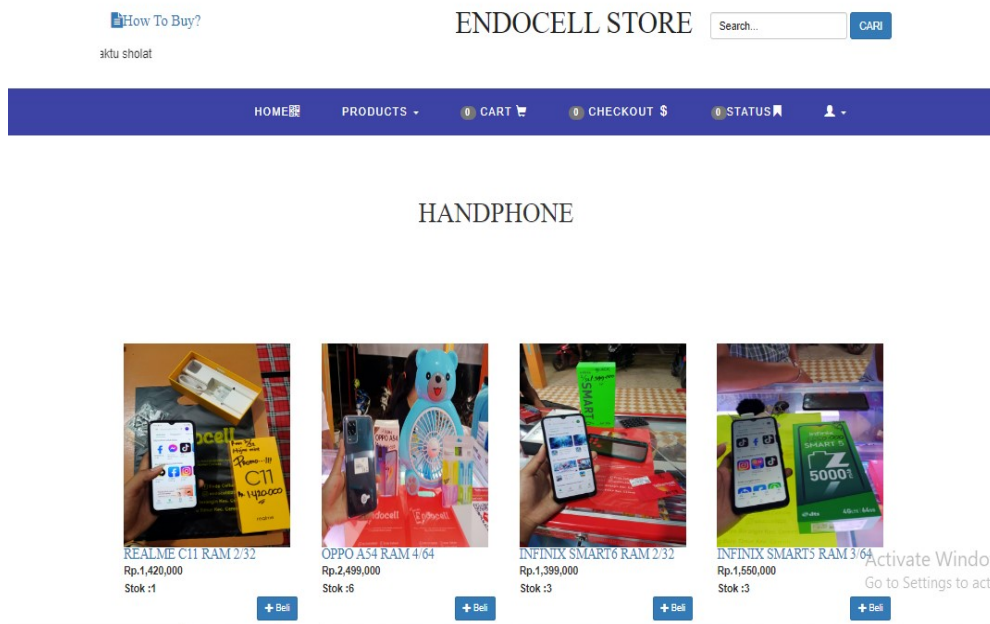


Figure 9. Product display page

Product Details Page

On this page, larger product figures are displayed and other figures regarding the product are also provided. The following displays the product details page:



Figure 10. Product Details Page

Cart Page

Customer order basket page which functions to group various selected products you want to order. Here's what the cart page looks like:

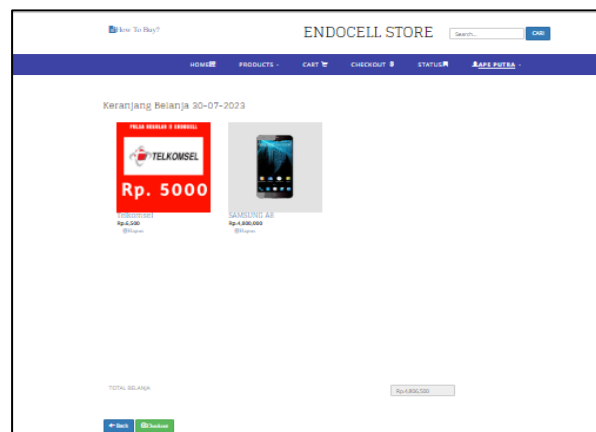


Figure 11. Cart Page

Customer Login Page

To checkout, customers must log in first. The following displays the customer login page:

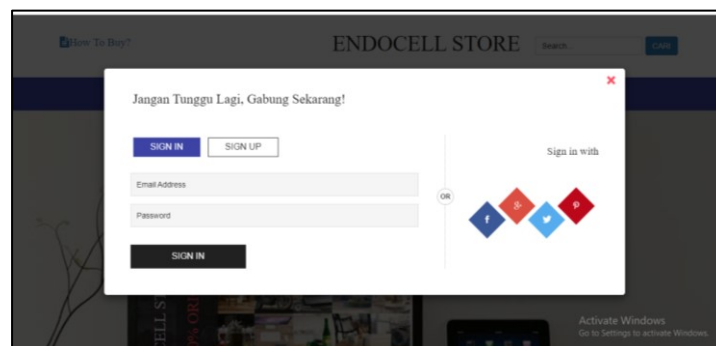


Figure 12. Customer Login Page

Customer Registration Page

If the customer doesn't have an account, they must register first. The following displays the customer registration page:

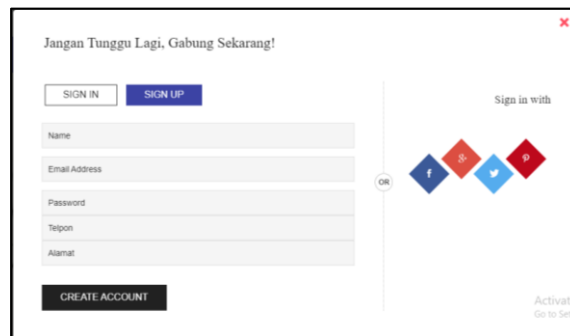


Figure 13. Customer Registration Page

Shopping Checkout Page

This page displays the selected product, the sub-total price of the selected product, and the form that must be filled in for shipping purposes. The following displays the shopping checkout page:

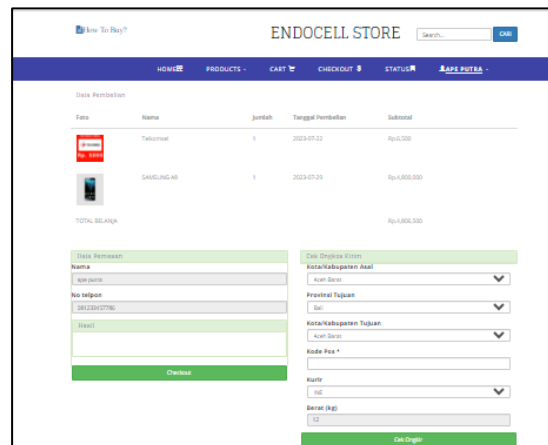


Figure 14. Shopping Checkout Page

Order Status Page

The order status page is a page that displays the status of the customer's order, whether it is waiting for payment, being processed by the admin, waiting for delivery, or the order has been received. The following displays the order status page:

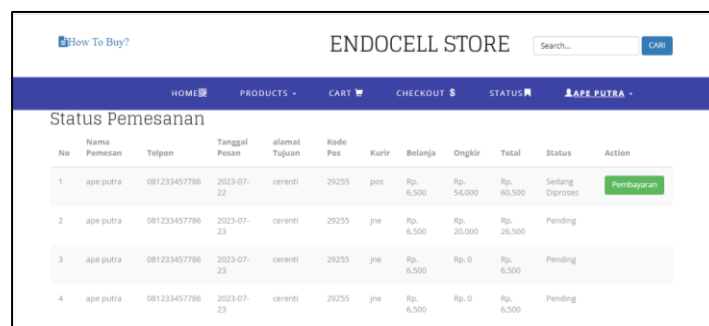


Figure 15. Order Status Page

Payment Page

The payment that e-commerce uses is bank transfer. So, buyers can make transfers to the account number that appears on the payment page and upload proof of payment on this payment page. The following displays the payment page:

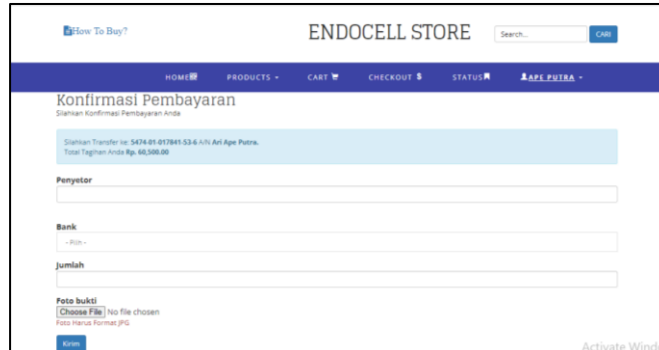


Figure 16. Payment Page

Admin Login Page

The admin login page is the page that the system displays when the admin enters the admin page. The following displays the admin login page :



Figure 17. Admin Login Page

Add Product Page

On this add product page the admin can add new products to be sold. The following displays the add product page:

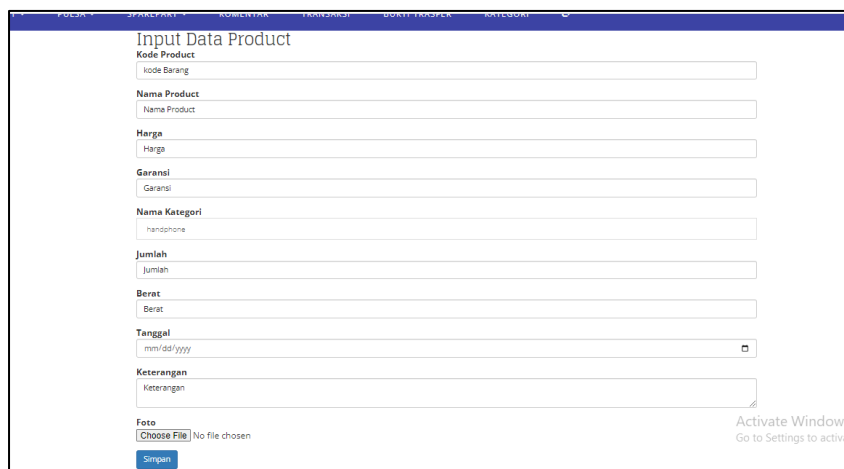


Figure 18. Add Product Page

Change Password page

The change password page is a page that functions to change the user's password, be it admin or customer. The following displays the password change page :

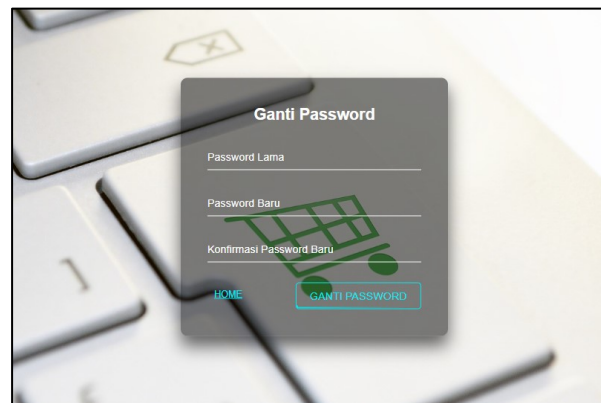


Figure 19. Change Password page

Sales Report Page

This report page displays sales data from the Endocell store. The following displays the sales report page :

No.	Pembeli	Telepon	Belanja	Ongkir	Total	Ekspedisi	Pembayaran	Alamat Tujuan	Kode POS	Tanggal
1	Aris	082262743163	2956000	20000	2976000	jne	BCA	Parumahan Seminal	29255	2023-08-01
2	gema fajar	082122855458	4870000	40000	4910000	jne	Bank	Jalan Raya kubuk minturun	25175	2019-08-13
3	ape putra	081233457786	4800000	20000	4820000	jne	Bank	cerenti	29255	2023-08-01

Figure 20. Sales Report Page

Conclusions

From the research that the author has conducted on the sales process at the Endocell cellphone business in Kompe Berangin Village and the analysis of existing problems, the following conclusions can be drawn:

1. With this e-commerce application, you can expand the marketing area so that income from sales in the Endocell cellphone business can increase further.
2. Availability of marketing media that is supported by technological developments so that it is known to many people and can be reached both far and near.
3. This e-commerce application helps managers recapitulate daily, monthly and annual data which can be used to determine profits from sales in the Endocell cellphone business.

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Referensi

- [1] Abidin, M. M., Purnama, B. E., & Nugroho, G. K. (2013). Pembangunan Media Pembelajaran Teknik Komputer Jaringan Kelas X Semester Ganjil Pada Sekolah Menengah Kejuruan Taruna Bangsa Pati Berbasis Multimedia Interaktif. *IJNS-Indonesian Journal on Networking and Security*, 4(3).
- [2] Simalango, U., Huda, A., & Dwiyani, N. (2018). RANCANG BANGUN APLIKASI MULTIMEDIA INTERAKTIF MOBILE LEARNING. *Jurnal Vokasional Teknik Elektronika dan Informatika*, 6(2), 44-50.
- [3] Haryati, Titik. 2012. "Peningkatan Kualitas Pembelajaran Pendidikan Kewarganegaraan Melalui Praktik Belajar Kewarganegaraan (Project Citizen)." Dalam jurnal ilmiah Civis, Volume II, No 2, Juli 2012
- [4] Marlina. 2004. *Implementasi Kurikulum 2013 Dalam Meningkatkan Mutu Pembelajaran PPKn Siswa Di Sman 5 Bandar Lampung. Lampung*
- [5] Hayati, S. (2015). Pengembangan Media Pembelajaran Flipbook fisika untuk meningkatkan hasil belajar peserta didik. *Prosiding Seminar Nasional Fisika*, 4(2): 49-5.
- [6] Sanaky, AH, "Media Pembelajaran Interaktif Inovatif," Bandung : Kaukaba Dipantara 2013.
- [7] Rahmat, R., & Irfan, D. (2019). RANCANG BANGUN MEDIA PEMBELAJARAN INTERAKTIF KOMPUTER DAN JARINGAN DASAR DI SMK. *Jurnal Vokasional Teknik Elektronika dan Informatika*, 7(1), 48-53.
- [8] Hermansyah, H., & Dwiyani, N. (2019). RANCANG BANGUN MEDIA PEMBELAJARAN MULTIMEDIA INTERAKTIF PADA MATA PELAJARAN SIMULASI DIGITAL. *Jurnal Vokasional Teknik Elektronika dan Informatika*, 7(1), 87-92.
- [9] B'Far, R., 2005. *Mobile Computing Principle*.
- [10] Ramadhan, T. and Utomo, V.G., 2014. Rancang Bangun Aplikasi Mobile Untuk Notifikasi Jadwal Kuliah Berbasis Android (Studi Kasus : STMIK PROVISI Semarang). *Jurnal Teknologi Informasi dan Komunikasi*, 5(2), pp.47-55.
- [11] Asmiyunda, dkk. (2018). Pengembangan E-Modul Keseimbangan Kimia Berbasis Pendekatan Saintifik Untuk Kelas XI SMA/MA. *Jurnal Eksakta Pendidikan (JEP)*. Vol. 2 (2):155-161.
- [12] Gusti Ayu Dessy. (2018). Pengembangan Modul Matematika Diskrit Berbentuk Digital Dengan Pola Pendistribusian Asynchronous Menggunakan Teknologi Open Source. *Jurnal Nasional Pendidikan Teknik Informatika*. 7(1)
- [13] I Komang, dkk. (2017). Pengembangan E-Modul Berbasis Model Pembelajaran Discovery Learning Pada Mata Pelajaran "Sistem Komputer" Untuk Siswa Kelas X Multimedia SMK Negeri 3 Singaraja. *Jurnal Pendidikan Teknologi dan Kejuruan*. 14 (1), 40. 58-
- [14] Hamid, A., & Alberida, H. (2021). Pentingnya Mengembangkan E-Modul Interaktif Berbasis Flipbook di Sekolah Menengah Atas. *EDUKATIF : JURNAL ILMU PENDIDIKAN*, 3(3), 911–918.
- [15] Imansari, N., & Sunaryantiningsih, I. (2017). Pengaruh Penggunaan E-Modul Interaktif Terhadap Hasil Belajar Mahasiswa pada Materi Kesehatan dan Keselamatan Kerja. *VOLT : Jurnal Ilmiah Pendidikan Teknik Elektro*, 2(1), 11
- [16] Ismael. (2017). RANCANG BANGUN SISTEM INFORMASI PENYALURAN SEMEN PADANG UNTUK DAERAH BENGKULU SELATAN DI CV. MUTIA BERSAUDARA. *Jurnal EdikInformatika : Penelitian Bidang Komputer Sains dan Pendidikan Informatika V3.i2(147-156)*
- [17] Nasution, Noehi, dkk., *Evaluasi Pembelajaran Matematika*, Jakarta: Universitas
- [18] Pramuditya, S. A., Noto, M. S., & Purwono, H. (2018). Desain Game Edukasi Berbasis Android pada Materi Logika Matematika. *JNPM (Jurnal Nasional Pendidikan Matematika)*, 2(2), 165.
- [19] Riduwan (2008). *Pengantar Statistika Untuk Penelitian Pendidikan, Sosial, Ekonomi, Komunikasi, dan Bisnis*. Bandung: Alfabeta.
- [20] Rogozin. (2012). *Physics Learning Instruments of XXI Century*. Proceedings of The World Conference on Physics Education 2012.

- [21] Setyosari, H Punaji. 2016. Metode Penelitian Pendidikan & Pengembangan. Prenada Media.
- [22] Song, L & Hill, J. R. (2007). A Conceptual Model for Understanding Self-Directed Learning in Online Environments. *Journal of Interactive Online Learning*, 6(1): 27-42
- [23] Suartama, I. K. (2016). Evaluasi dan Kriteria Kualitas Multimedia Pembelajaran. Universitas Pendidikan Ganesha, 1-17.
- [24] Sukmono, N. D. (2015). Metode Pembelajaran Self Directed Learning Berbasis ICT dengan Pemanfaatan Game Android Berkarakter Untuk Pembelajaran Bahasa Indonesia. Seminar Nasional Pendidikan indonesia 2015,245–254.
- [25] Sukmono, N. D. (2015). Metode Pembelajaran Self Directed Learning Berbasis ICT dengan Pemanfaatan Game Android Berkarakter Untuk Pembelajaran Bahasa Indonesia. Seminar Nasional Pendidikan Bahasa Indonesia 2015,245–254.