

Rancang Bangun Aplikasi *E-Commerce* Berbasis *Android* Pada Toko Suryamart Menggunakan *Framework Flutter*

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Pendahuluan

Latar Belakang



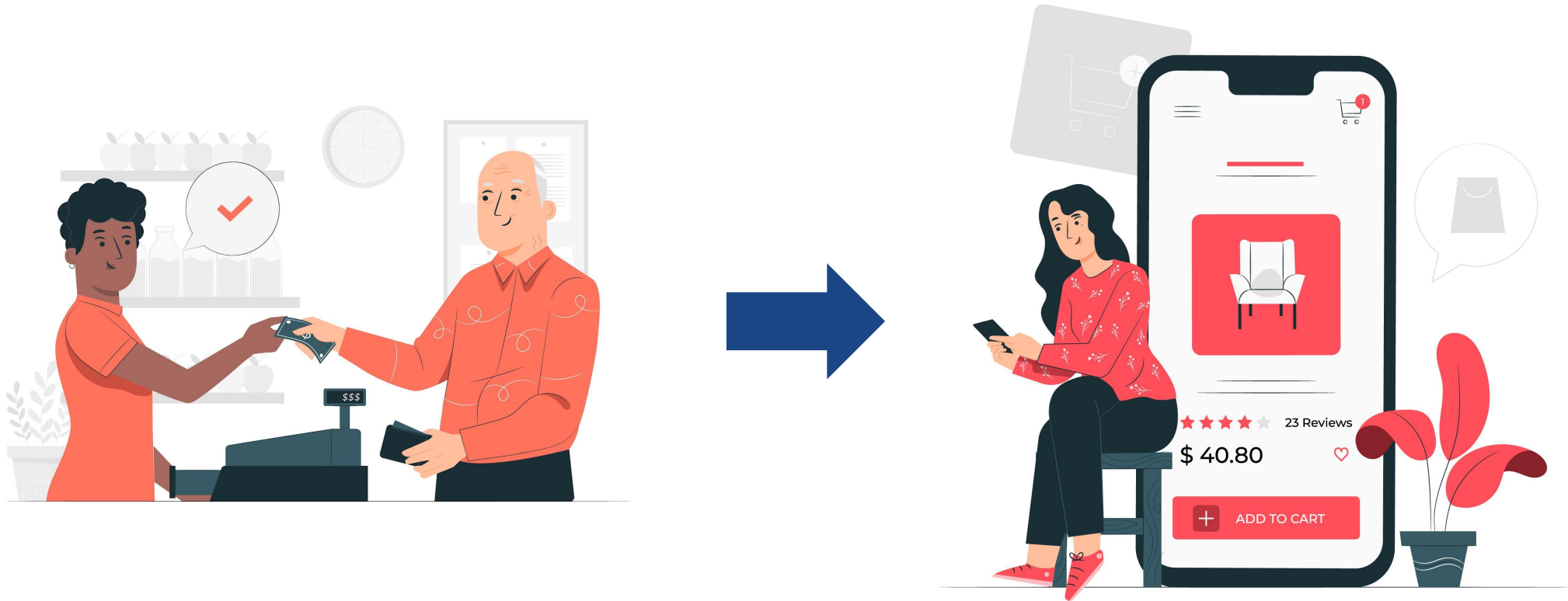
Rumusan dan
Batasan Masalah



Tujuan dan Manfaat

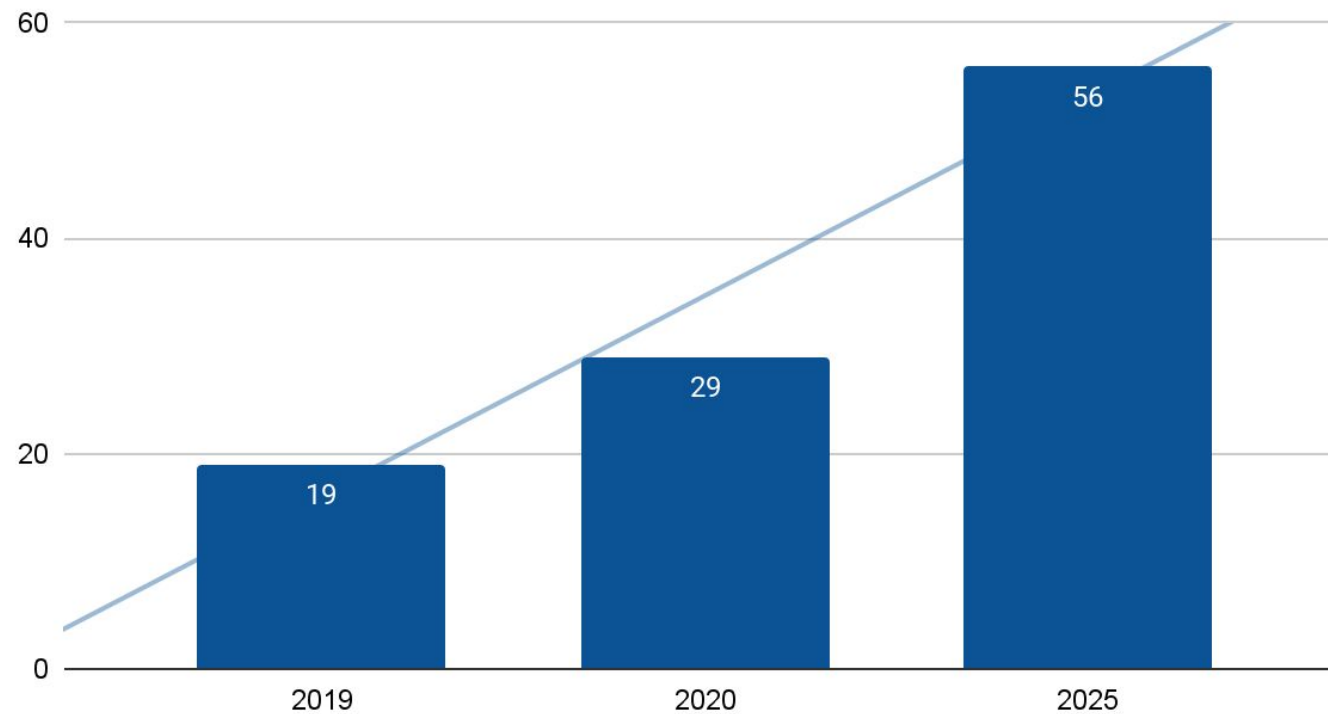


Latar Belakang



Latar Belakang

Retail E-commerce Revenue Indonesia



Latar Belakang

Suryamart

- Pembeli internal (civitas Akademik UMSIDA)
- Pembeli eksternal (masyarakat umum)



Latar Belakang

Beberapa Manfaat E-commerce :

1. Pemesanan dan pembayaran dilakukan sistematis dan online
2. Transaksi cepat dan mudah
3. Menjangkau target pasar yang luas

Manfaat e-commerce menjadi **solusi permasalahan yg dihadapi Suryamart** dan sebagai **batu loncatan** untuk lebih berkembang melalui teknologi



Rumusan dan Batasan Masalah

Rumusan Masalah :

1. Pembeli internal Suryamart memiliki keterbatasan waktu sehingga tidak sempat untuk datang dan berbelanja di toko
2. Minimnya minat pembeli eksternal untuk berbelanja dengan cara datang langsung ke toko

Batasan Masalah :

1. Aplikasi digunakan pada perangkat android
2. Aplikasi dibangun menggunakan framework flutter
3. Aplikasi membutuhkan koneksi internet
4. Pengguna aplikasi adalah dosen dan admin suryamart

Tujuan dan Manfaat

Tujuan :

1. Membangun aplikasi yang dapat memudahkan proses pemesanan jarak jauh
2. Membangun aplikasi e-commerce untuk berbelanja efektif dan efisien

Manfaat :

1. Memberikan pembeli pengalaman berbelanja mudah dan menyenangkan
2. Meningkatkan loyalitas pembeli di toko Suryamart
3. Meningkatkan pendapatan penjualan di toko Suryamart

Tinjauan Pustaka

Tinjauan Pustaka

- **Fitur E-commerce**

E-commerce Bisnis Laundry

Fitur antar-jemput Laundry, status proses laundry, pemesanan dan pembayaran

S. Lauri, D. Haryadi Setiabudi, and A. Noertjahyana, "Penerapan Konsep Marketplace pada Bisnis Laundry dengan menggunakan Framework Multiplatform Flutter," J. Infra, vol. 8, no. 2, pp. 44–50, 2020, [Online].



E-commerce Pertanian Dutatani Store

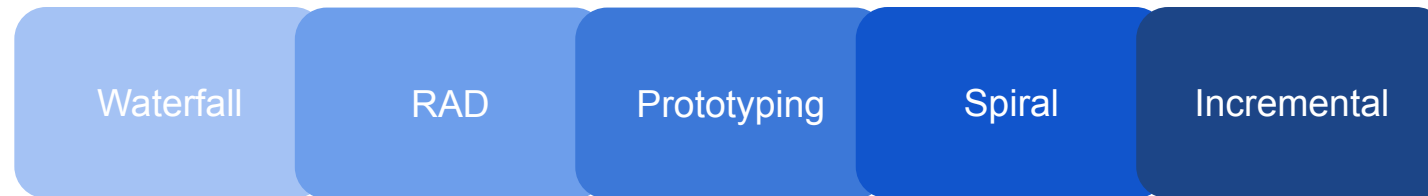
Fitur pencarian produk, filter produk, kontak toko, sign-in, sign-up, detail produk, kategori produk

Y. Tanujaya, R. Delima, A. R. Chrismanto, and A. Wibowo, "PEMBANGUNAN APLIKASI E-COMMERCE PERTANIAN DUTATANI STORE BERBASIS ANDROID Development of Android-Based Agriculture E-Commerce Application Dutatani Store," no. June 2022, 2021, doi: 10.21082/ip.v30n1.2021.p39-54.



Tinjauan Pustaka

- **Model pengembangan perangkat lunak**



A. Adel and B. Abdullah, "A Comparison Between Three SDLC Models Waterfall Model, Spiral Model, and Incremental/Iterative Model," *IJCSI Int. J. Comput. Sci. Issues*, vol. 12, no. 1, pp. 106–111, 2015, [Online].

D. Murdiani and M. Sobirin, "PERBANDINGAN METODOLOGI WATERFALL DAN RAD (RAPID APPLICATION DEVELOPMENT) DALAM PENGEMBANGAN SISTEM INFORMASI," *JINTEKS (Jurnal Inform. Teknol. dan Sains)*, vol. 4, no. 4, pp. 302–306, 2022.

N. Rachma and I. Muhlas, "Comparison Of Waterfall And Prototyping Models In Research And Development (R&D) Methods For Android-Based Learning Application Design," *J. Inov. Inov. Teknol. Inf. dan Inform.*, vol. 5, no. 1, p. 36, 2022, doi: 10.32832/inova-tif.v5i1.7927.

Tinjauan Pustaka

- **State management**

Table 1
Experiment Scenario

Scenario ID	Position	Description
SK-01	Parent	Change background state on Card widget
SK-02		Change the font-size state of the Text:title widget
SK-03		Change state font-color on widget Text:title
SK-04	Leaf	Change the font-size state of the Text:synopsis widget
SK-05		Change the font-color state of the Text:synopsis widget

Table 2
Efficiency of Block and Prvider State Management Libraries

Metric (%)	Data	Efficiency	
		BLoC	Provider
CPU utilization	1.000	2,70	5,19
	10.000	2,14	2,14
Memory usage	1.000	8,18	12,66
	10.000	8,19	11,27
Execution time	1.000	16,79	21,21
	10.000	16,36	19,44

J. Mantik, R. Rama Prayoga, G. Munawar, R. Jumiyan, and A. Syalsabila, "Performance Analysis of BLoC and Provider State Management Library on Flutter," J. Mantik, vol. 5, no. 3, pp. 1591–1597, 2021.

Metode

Flowchart Alur
Penelitian

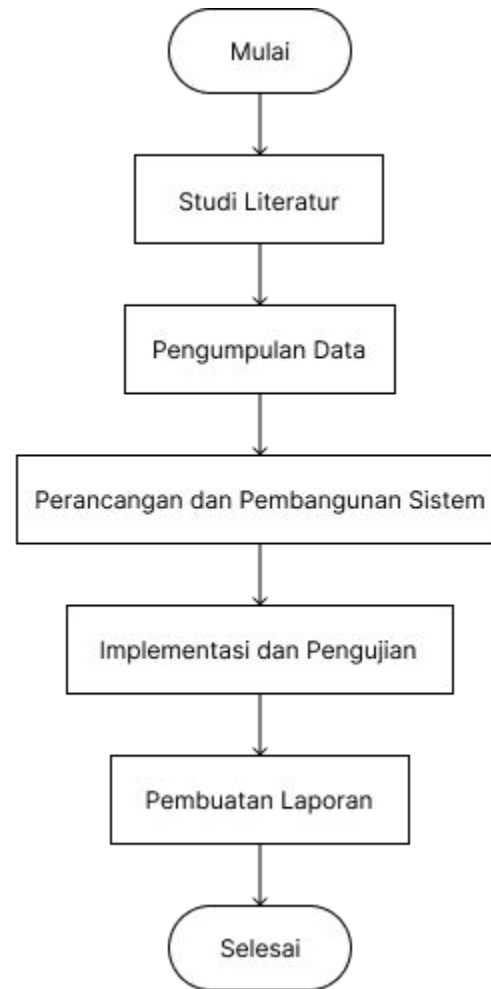


Model
Pengembangan
Sistem

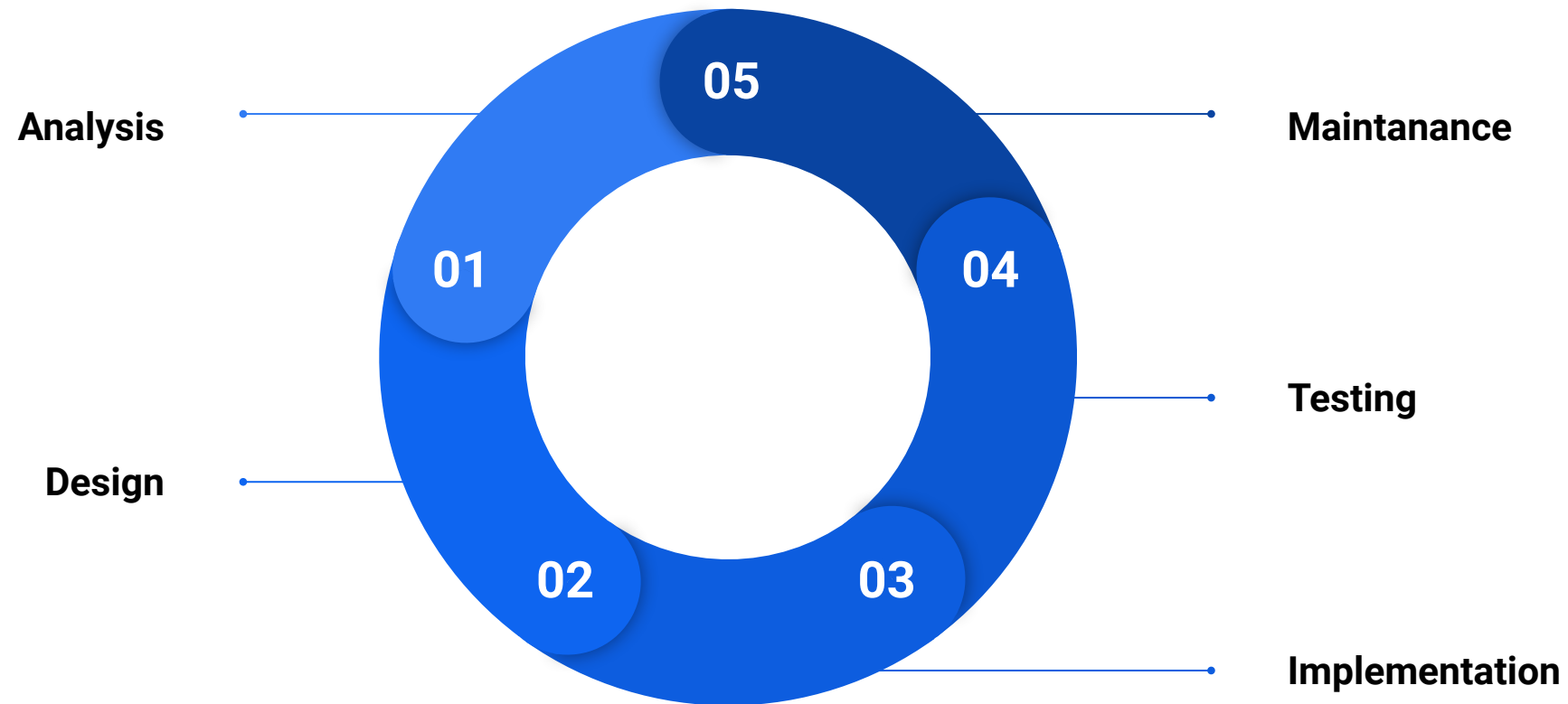


Rancangan Sistem

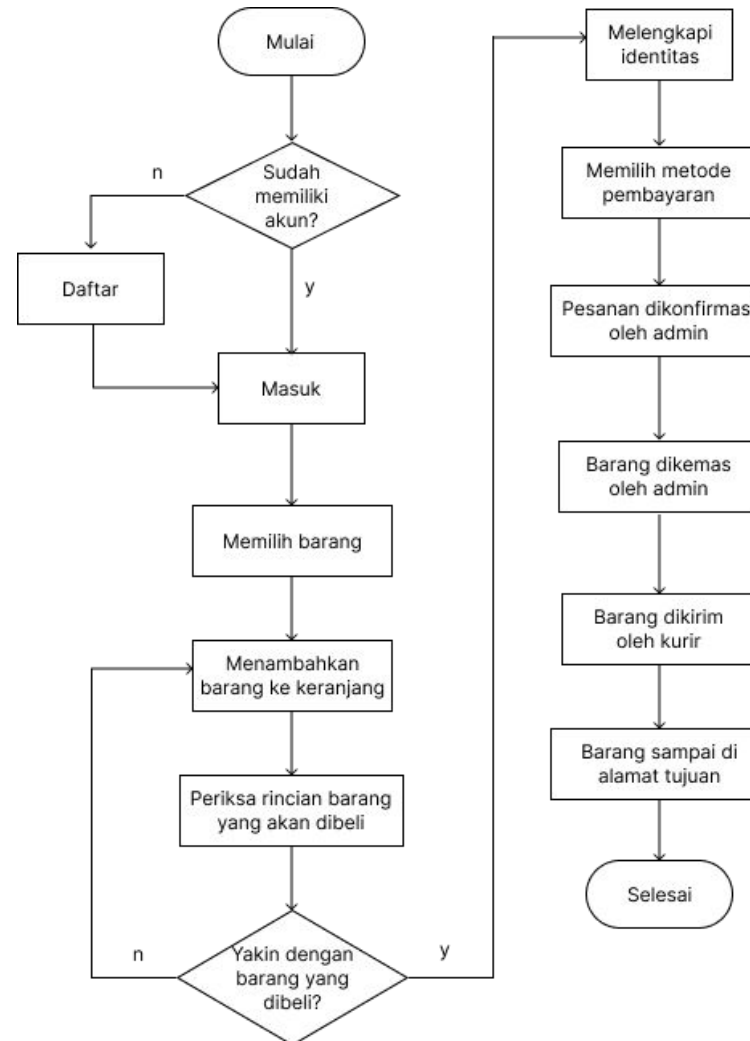
Flowchart Alur Penelitian



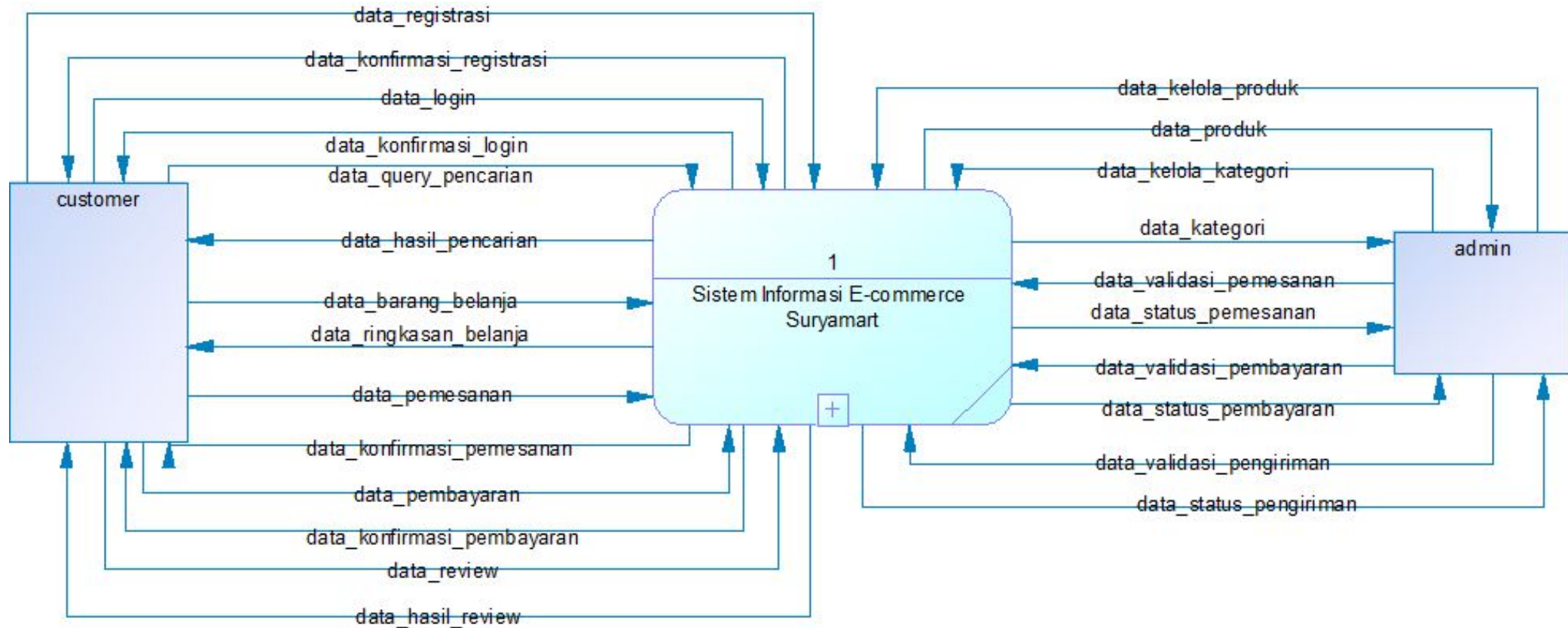
Model Pengembangan Sistem



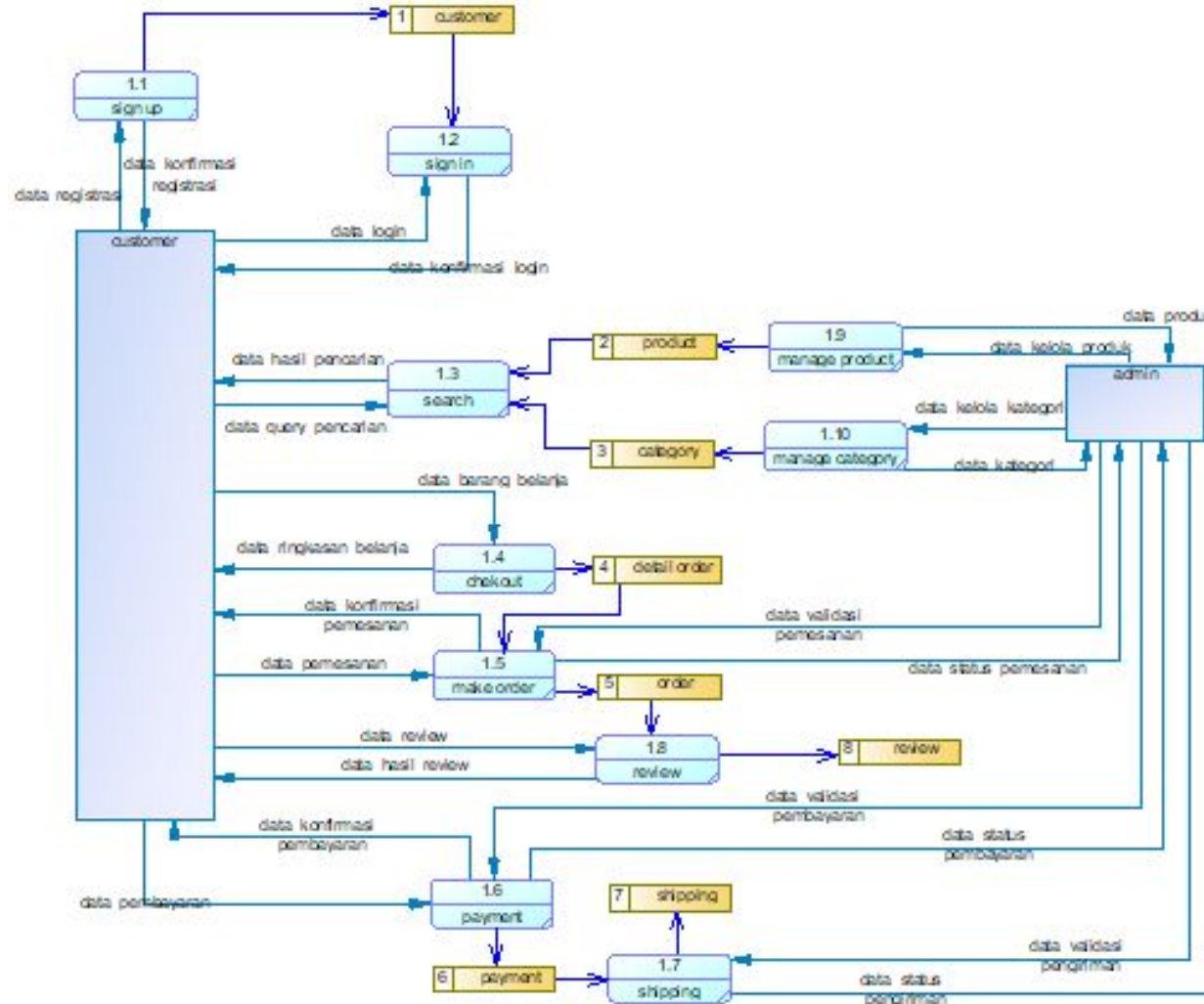
Rancangan Sistem



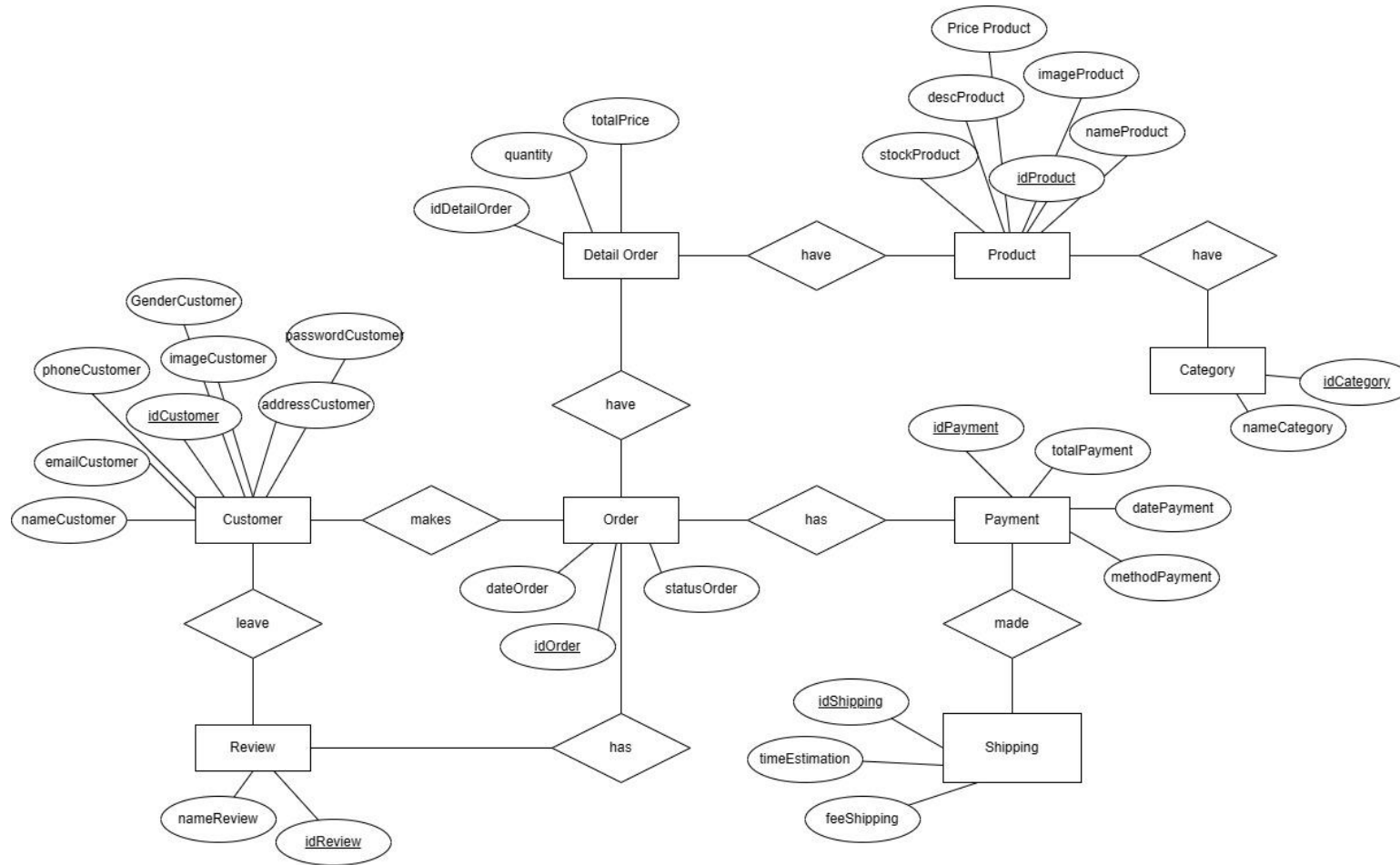
Rancangan Sistem



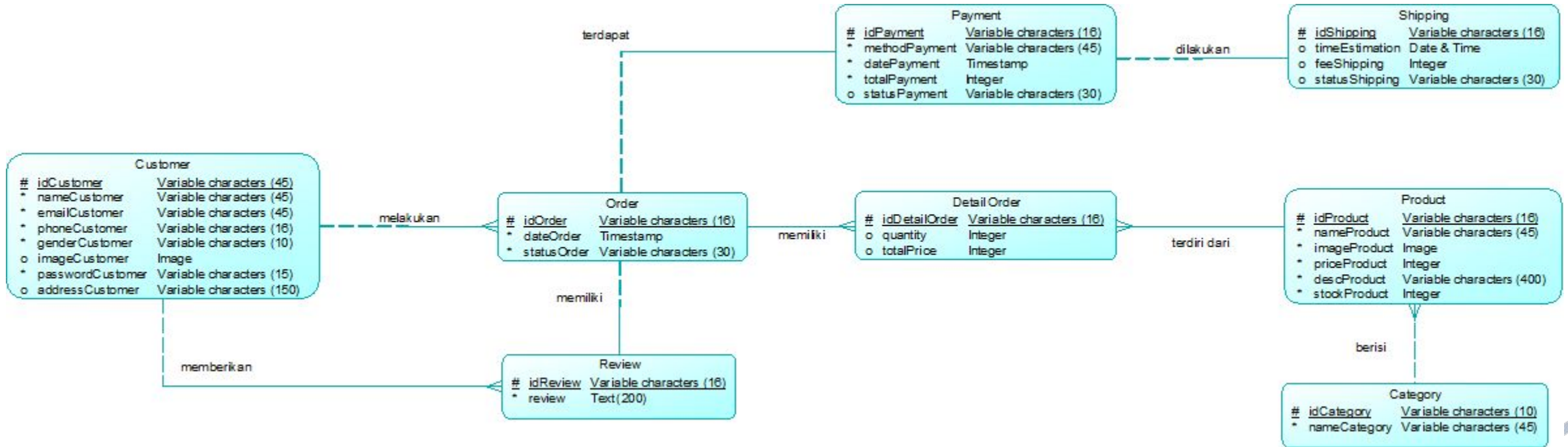
Rancangan Sistem



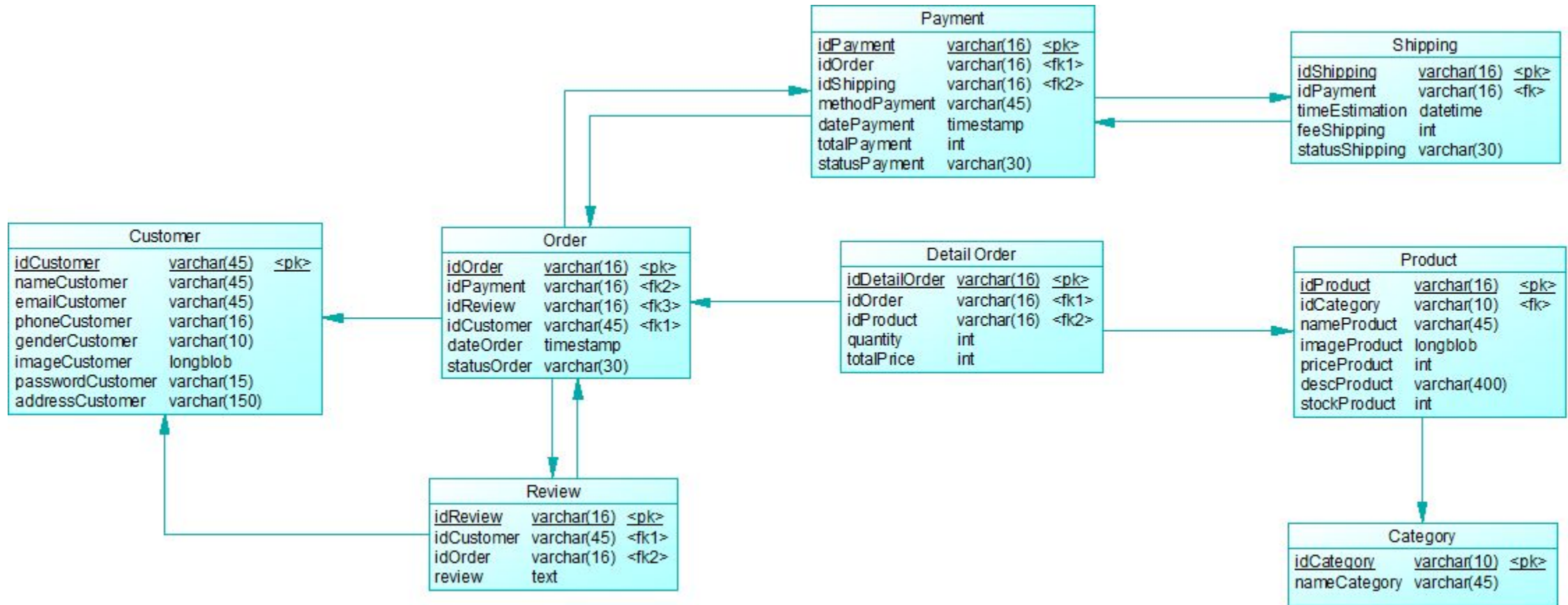
Rancangan Sistem



Rancangan Sistem



Rancangan Sistem



Hasil dan Pembahasan

User App

14:34

Welcome Back!

Please fill E-mail & password to login your app account.

E-mail

example@gmail.com

Password

[Forgot Password?](#)

Login Now

Don't have an account yet? [Sign Up](#)

14:34

Create Account

Already have an account? [Sign In](#)

Full name

Syana Mutia

ID member

56389

E-mail

example@gmail.com

Phone number

0812- xxxx - xxxx

Password

14:21

Profile

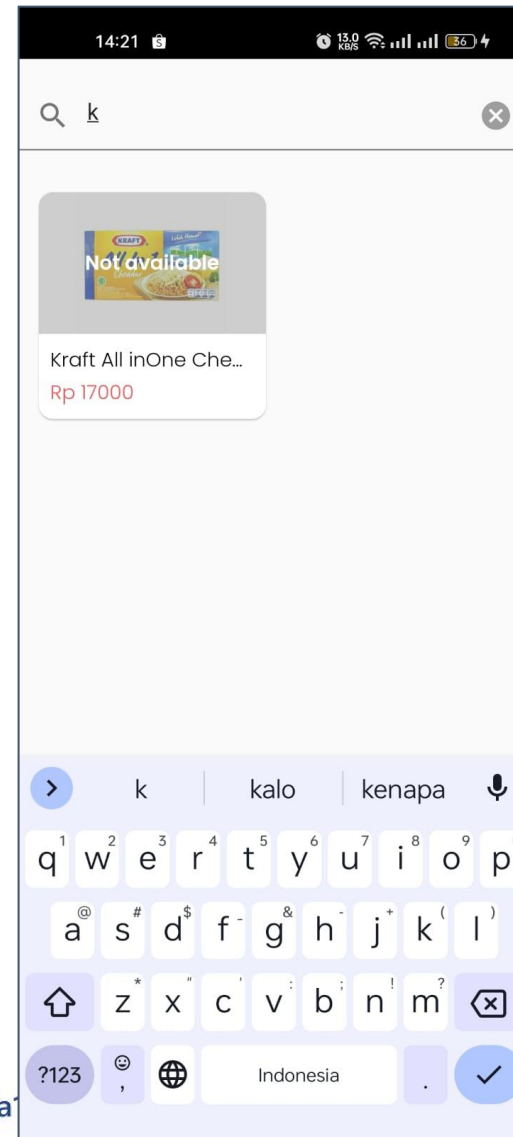
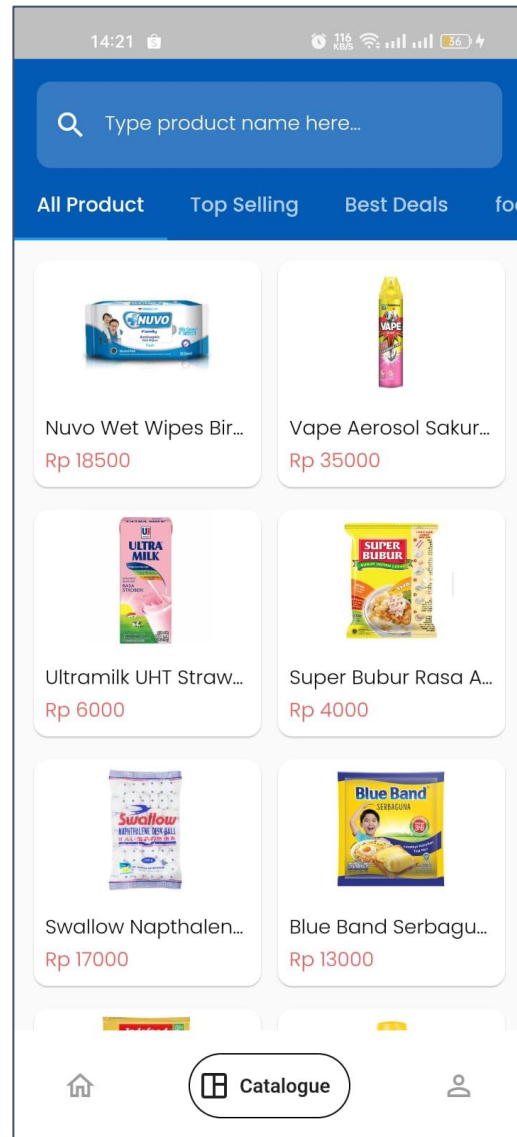
user

0 points

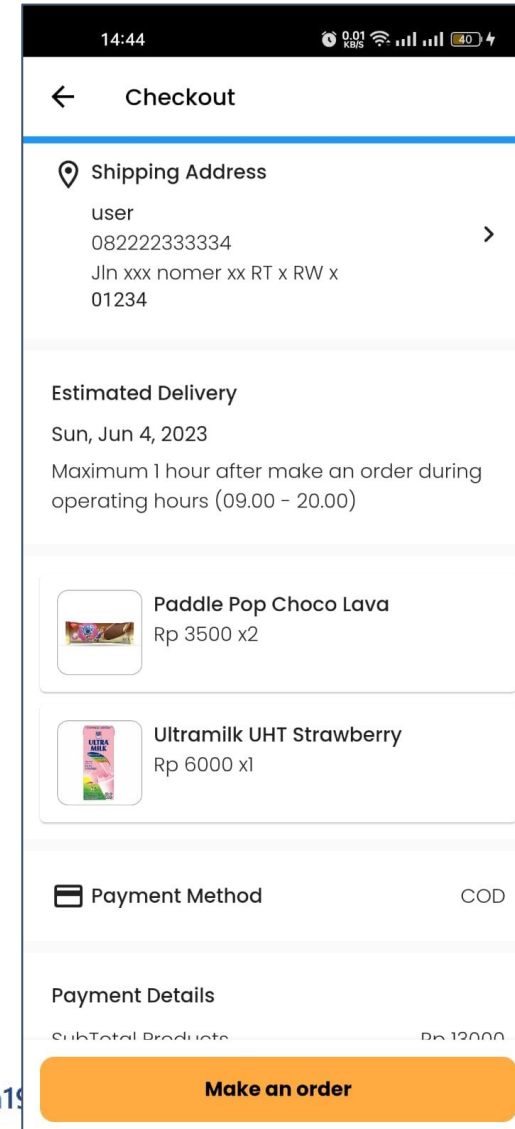
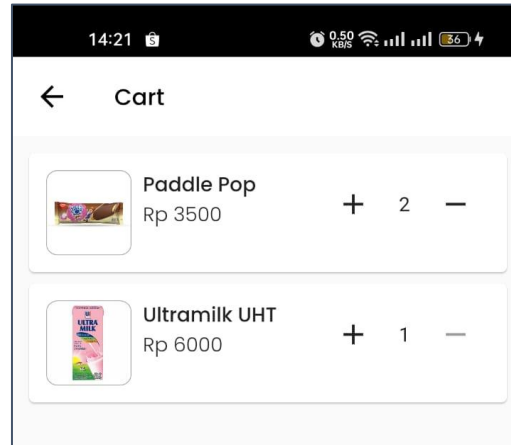
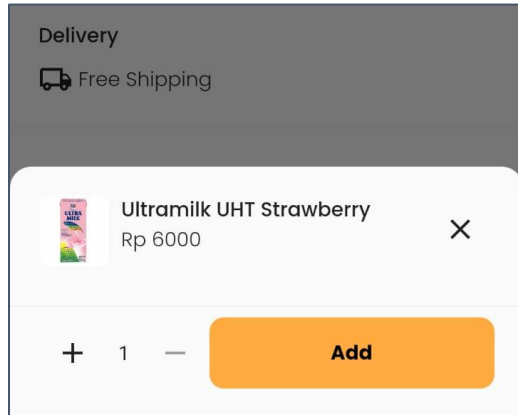
- Edit Profile >
- Shipping Address >
- Order History >
- My Reviews >
- Contact The Store >
- About >

Profile

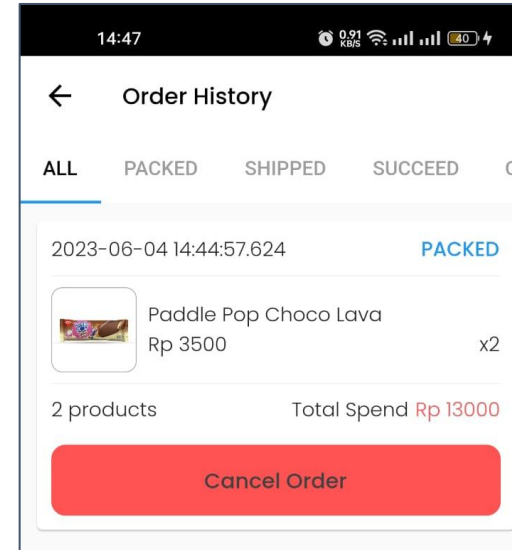
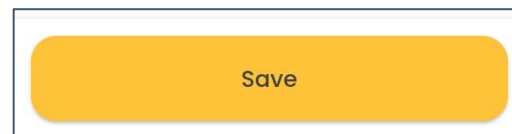
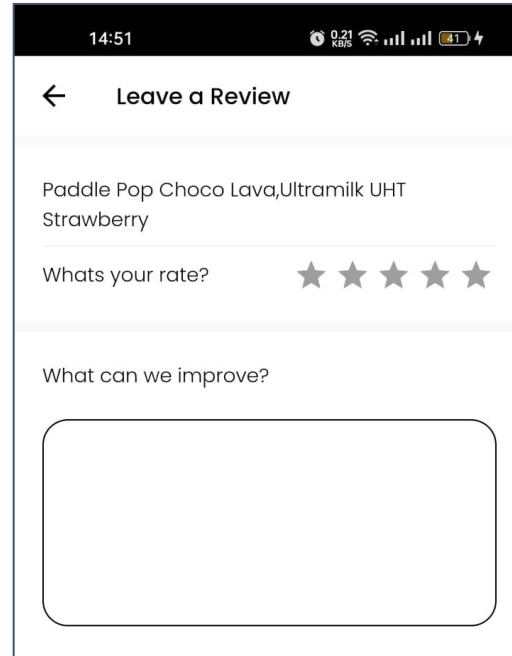
User App



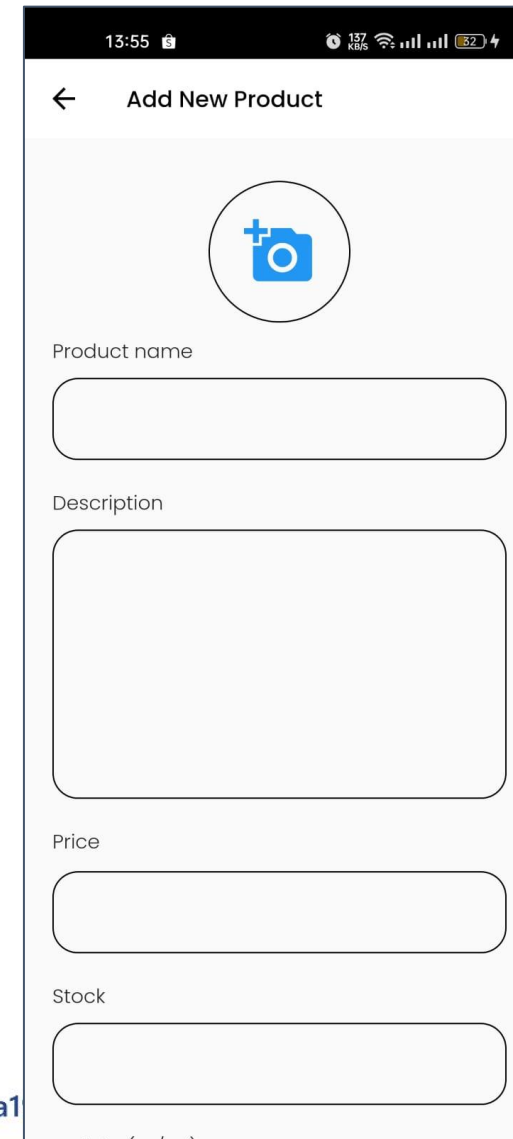
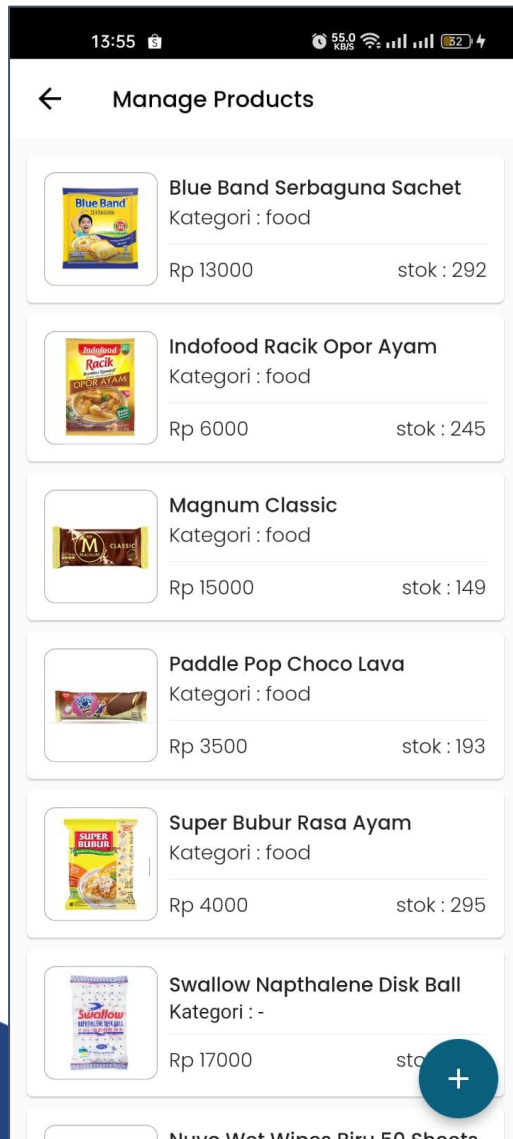
User App



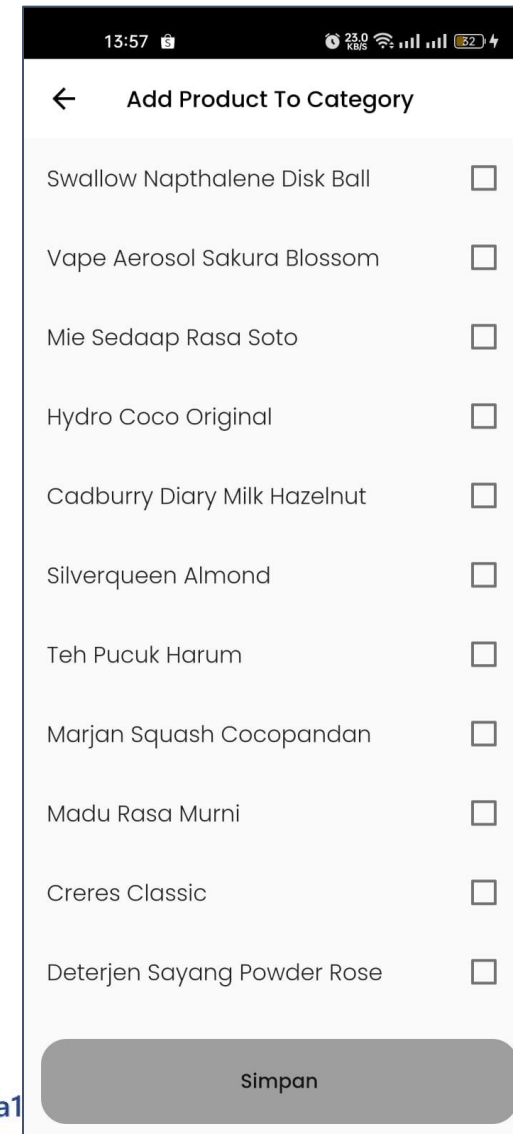
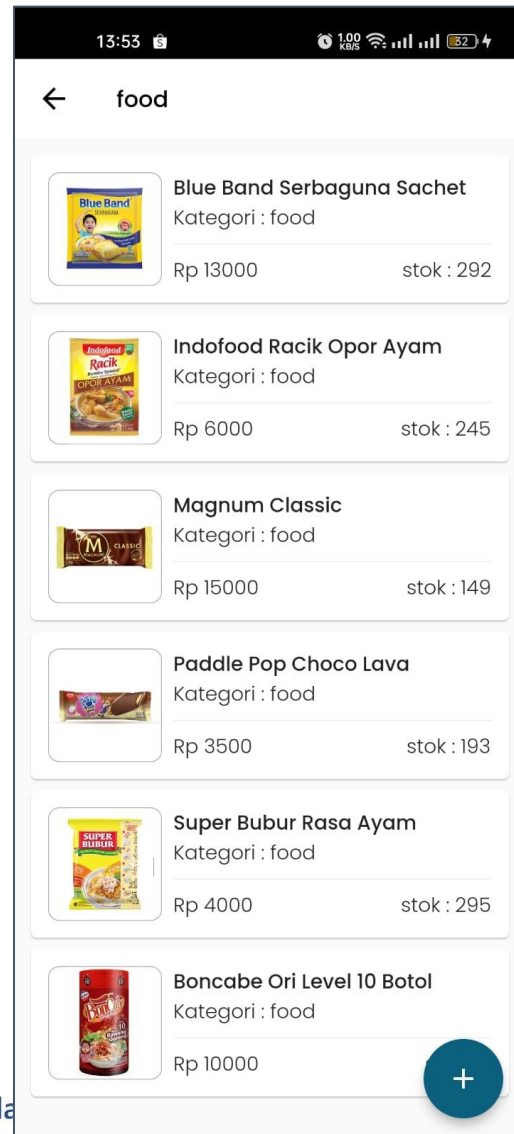
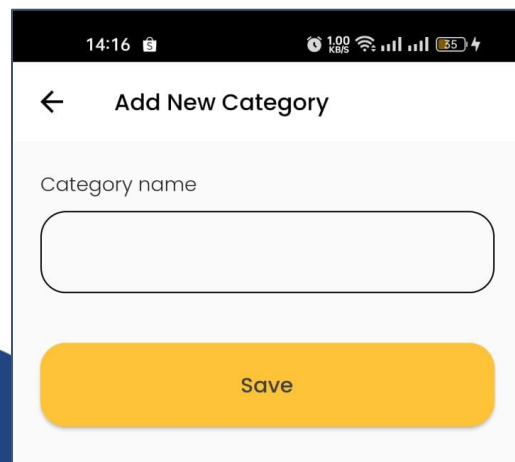
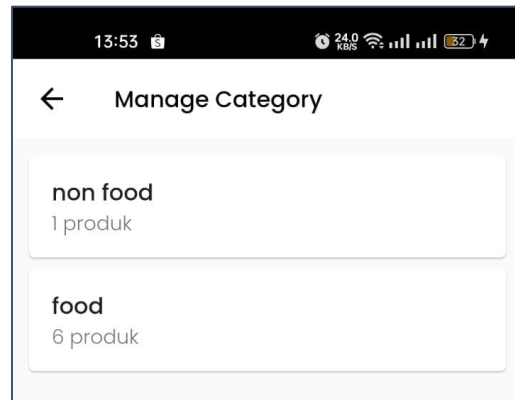
User App



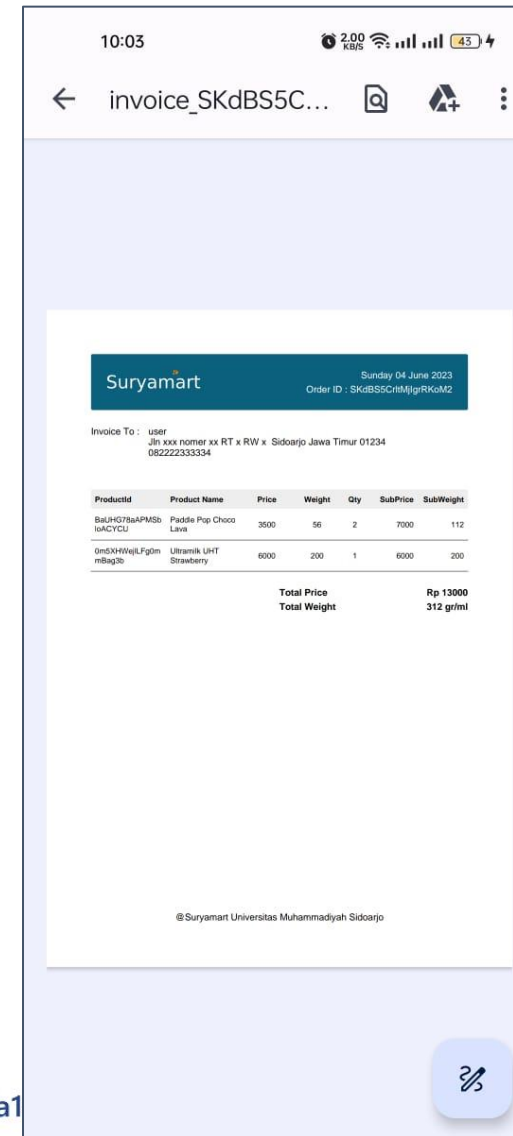
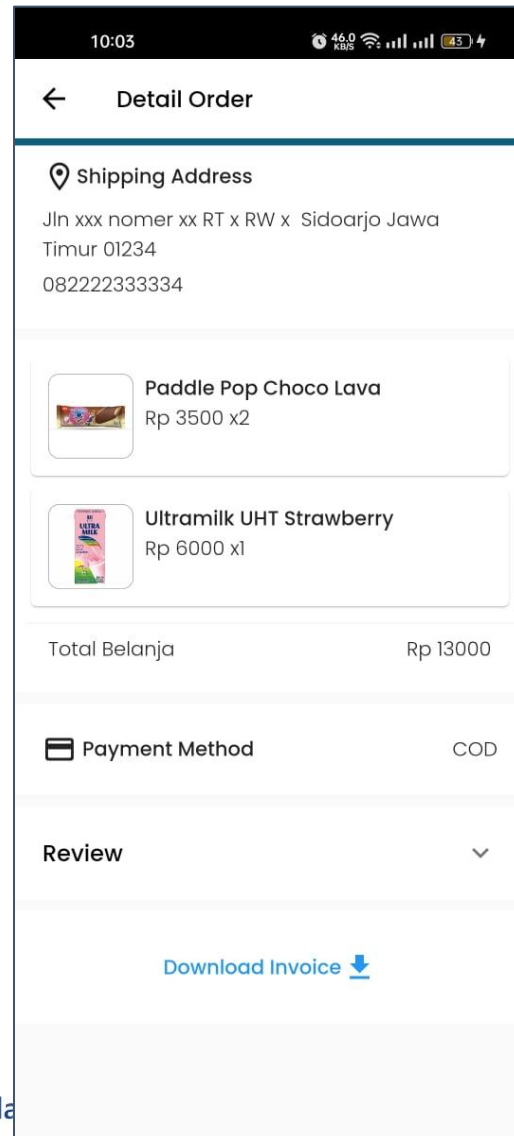
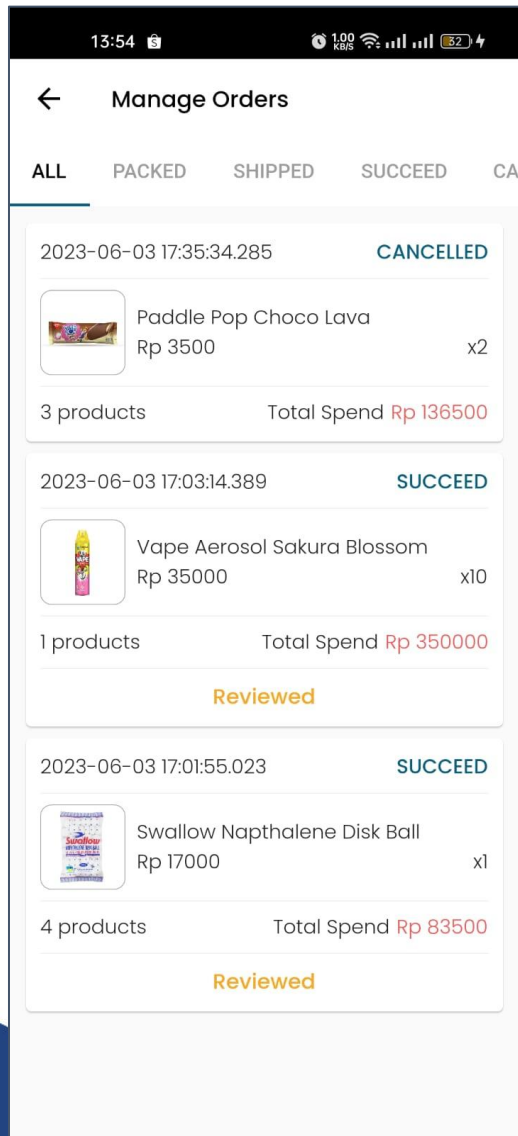
Admin App



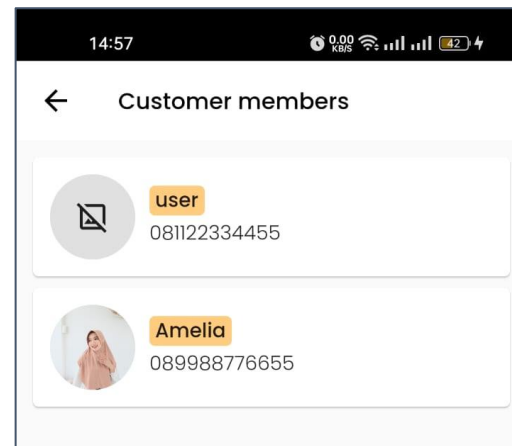
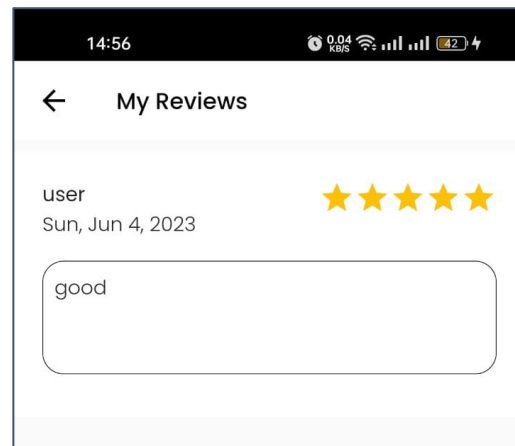
Admin App



Admin App



Admin App



Referensi

- [1] A. L. Kusumatriisna *et al.*, *Statistik E-Commerce 2021*. Badan Pusat Statistik, 2021.
- [2] A. Prasetio *et al.*, *Konsep Dasar E-Commerce*. Yayasan Kita Menulis, 2021. [Online]. Available: <https://books.google.com.my/books?id=xt8hEAAAQBAJ>
- [3] H. Harmayani, D. Marpaung, A. Hamzah, N. Mulyani, and J. Hutahaeen, *E-Commerce: Suatu Pengantar Bisnis Digital*. Yayasan Kita Menulis, 2020. [Online]. Available: <https://books.google.com.my/books?id=DLjwDwAAQBAJ>
- [4] “ASIA INTERNET USE, POPULATION STATISTICS DATA AND FACEBOOK DATA - MID-YEAR 2022,” 2022. <https://www.internetworldstats.com/stats3.htm> (accessed Nov. 13, 2022).
- [5] “Retail e-commerce revenue in Indonesia from 2017 to 2025(in billion U.S. dollars),” *Statista Research Department*, 2021. <https://www.statista.com/forecasts/280925/e-commerce-revenue-forecast-in-indonesia> (accessed Nov. 13, 2022).
- [6] D. T. Absari, Liliana, and Bambang Prijambodo, “E-Greengrocers: A Mobile Information System for Supporting Business in The Traditional Market,” *Inf. J. Ilm. Bid. Teknol. Inf. dan Komun.*, vol. 7, no. 2, pp. 120–124, 2022, doi: 10.25139/inform.v7i2.4674.
- [7] R. Hisham and Heru Wijayanto Aripadon, “Perancangan Dan Pengembangan Web Marketplace Kebutuhan Rumah Tangga Menggunakan Model Wdlc Dengan Metode Scrum,” *J. Ilm. Betrik*, vol. 13, no. 1, pp. 75–86, 2022, doi: 10.36050/betrik.v13i1.424.
- [8] Y. Bustomi and S. Rahayu, “Pemanfaatan Teknologi Informasi untuk Penjualan Hasil Pertanian Jeruk di Kabupaten Garut Menggunakan Pendekatan Extreme Programming,” *JRST (Jurnal Ris. Sains dan Teknol.*, vol. 7, no. 1, p. 51, 2023, doi: 10.30595/jrst.v7i1.15501.
- [9] J. Martin and A. R. Tanaamah, “Perancangan Dan Implementasi Sistem Informasi Penjualan Berbasis Desktop Website Menggunakan Framework Bootstrap Dengan Metode Rapid Application Development, Studi Kasus Toko Peralatan Bayi ‘Eeng Baby Shop,’” *J. Teknol. Inf. dan Ilmu Komput.*, vol. 5, no. 1, p. 57, 2018, doi: 10.25126/jtiik.201851547.
- [10] A. M. Almaududi Ausat, E. S. Astuti, and W. Wilopo, “Analisis Faktor yang Berpengaruh pada Adopsi E-Commerce dan Dampaknya Bagi Kinerja UKM di Kabupaten Subang,” *J. Teknol. Inf. dan Ilmu Komput.*, vol. 9, no. 2, p. 333, 2022, doi: 10.25126/jtiik.2022925422.

Referensi

- [11] E. Elmayati and R. Kurniasari, “Perancangan Aplikasi Dashboard Sri (System Of Rice Intensification) Untuk Hasil Pertanian Padi Di Kecamatan Sumber Harta Berbasis Web,” *J. Ilm. Betrik*, vol. 10, no. 02, pp. 55–62, 2019, doi: 10.36050/betrik.v10i02.14.
- [12] D. Murdiani and M. Sobirin, “PERBANDINGAN METODOLOGI WATERFALL DAN RAD (RAPID APPLICATION DEVELOPMENT) DALAM PENGEMBANGAN SISTEM INFORMASI,” *JINTEKS (Jurnal Inform. Teknol. dan Sains)*, vol. 4, no. 4, pp. 302–306, 2022.
- [13] J. Mantik, R. Rama Prayoga, G. Munawar, R. Jumiyani, and A. Syalsabila, “Performance Analysis of BLoC and Provider State Management Library on Flutter,” *J. Mantik*, vol. 5, no. 3, pp. 1591–1597, 2021.
- [14] “Mengenal Android Studio,” 2023. <https://developer.android.com/studio/intro?hl=id>
- [15] “Build apps for any screen,” 2022. <https://flutter.dev/>
- [16] A. Ramadhanu, R. Husna Arsyah, N. S. Wahyuni Nengsi, and N. Nurhaliza, “Rancang Bangun Aplikasi Mobile Edukasi Mengenai Parenting Skills Bagi Orang Tua Berbasis Android Dengan Menggunakan Bahasa Pemrograman Java Android,” *J. Teknol. Dan Sist. Inf. Bisnis*, vol. 1, no. 1, pp. 58–66, 2019, doi: 10.47233/jteksis.v1i1.23.
- [17] A. S. P. Aris Susanto, “Rancang Bangun Aplikasi E-Commerce Penjualan Helm Menggunakan Metode Simple Additive Weighting (Saw) (Studi Kasus: Gallery Helm Jogja),” *J. Teknol. Dan Sist. Inf. Bisnis*, vol. 4, no. 1, pp. 20–34, 2022, [Online]. Available: <http://jurnal.unidha.ac.id/index.php/jteksis/article/view/346%0Ahttp://jurnal.unidha.ac.id/index.php/jteksis/article/download/346/199>

