

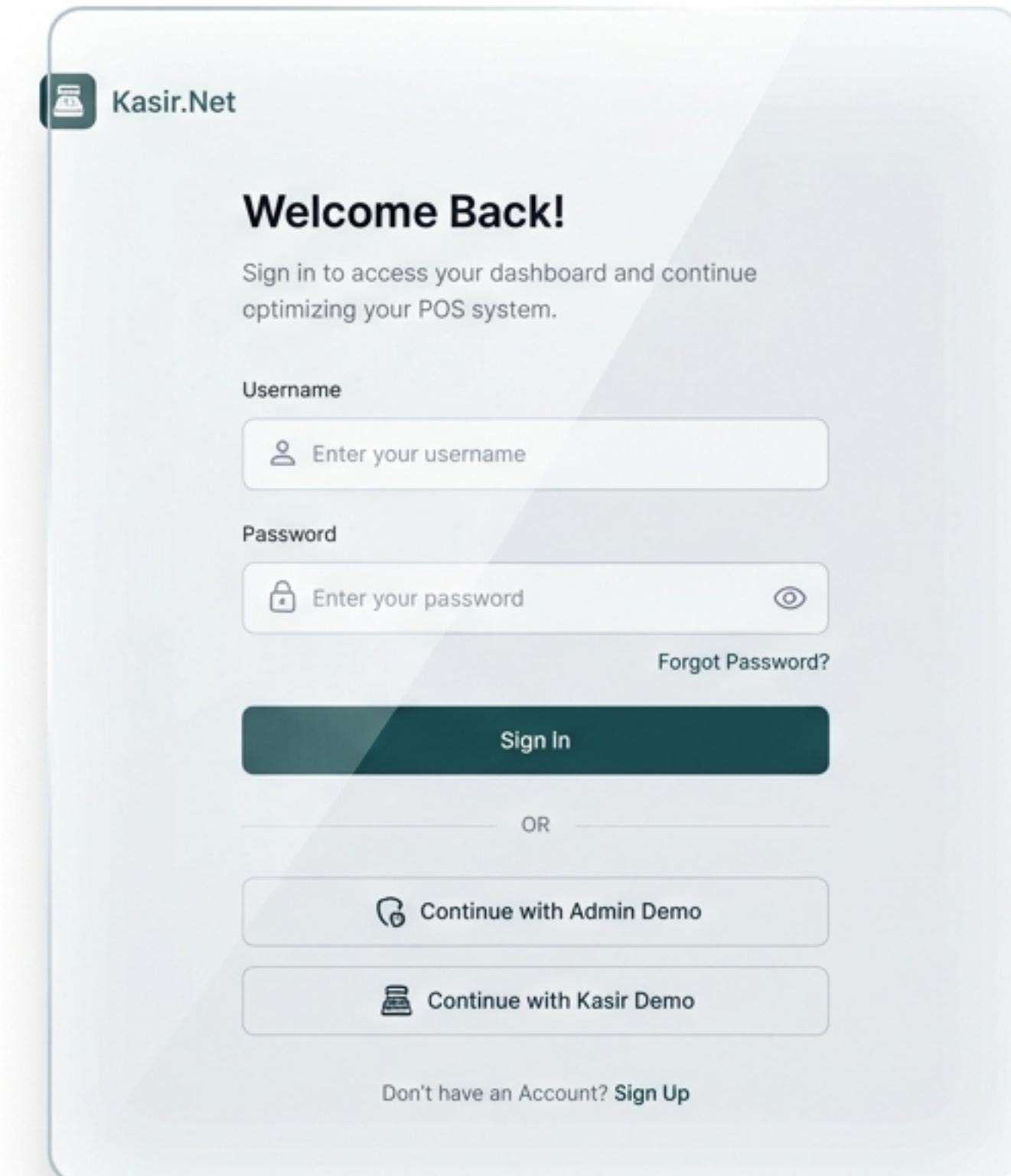
Kasir.NET: Modern POS System

Solusi Manajemen Ritel Terintegrasi
Berbasis .NET 9 & Next.js 16

Architecture

Workflow

Reliability



Ringkasan Ekosistem Proyek

Kasir.NET adalah sistem Point of Sale (POS) modern yang dirancang untuk efisiensi warung kopi dan usaha ritel. Dibangun dengan arsitektur monorepo (Nx) untuk performa dan skalabilitas tinggi.



Backend

.NET 9 (C#), ASP.NET Core,
Entity Framework Core



Frontend

Next.js 16, React 19 +
TypeScript, Tailwind CSS 4



Database

SQL Server / PostgreSQL

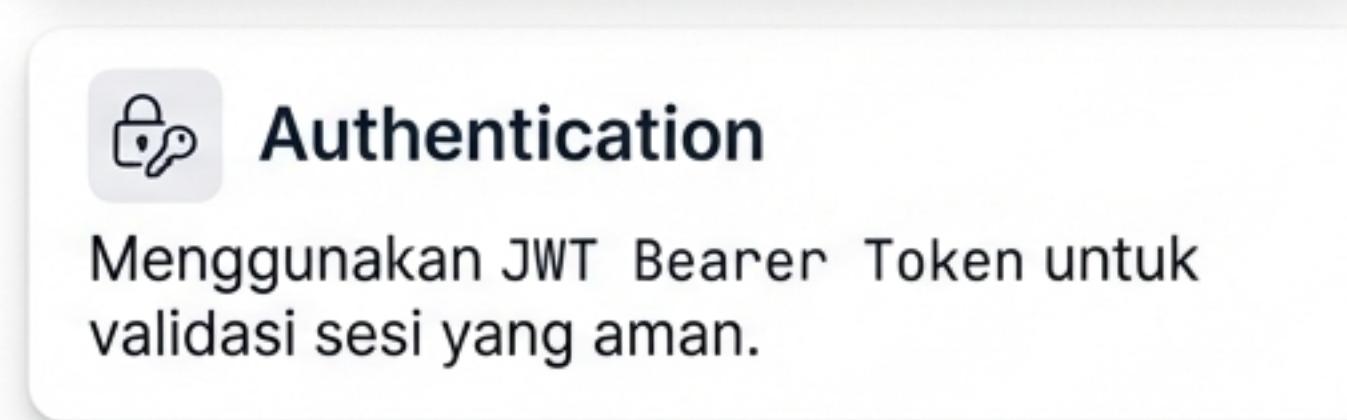


Security

JWT Auth & BCrypt Hashing

Arsitektur Keamanan & RBAC

Keamanan data dijamin melalui implementasi Role-Based Access Control (RBAC) yang ketat dan enkripsi standar industri.



The screenshot shows a software application window titled "Manajemen Kasir". A magnifying glass highlights the "Role" column for two rows. The first row, for "Administrator", has a purple button labeled "Admin". The second row, for "Kasir", has a blue button labeled "Kasir". Both buttons have a white border and are semi-transparent. The table has columns for Nama, Username, Role, Status, and Aksi (actions). The "Status" column shows "Aktif" for both rows. The "Aksi" column contains icons for edit, delete, and other actions.

Nama	Username	Role	Status	Aksi
Administrator	admin	Admin	Aktif	/ 🔍 ✎ 🗑
Kasir	kssir	Kasir	Aktif	/ 🔍 ✎ 🗑

Manajemen Produk & Katalog

Antarmuka pengelolaan katalog yang intuitif memungkinkan setup toko yang cepat dan terorganisir.

The screenshot shows a product management application interface. On the left is a dark sidebar with navigation links: Dashboard, Produk (selected), Kategori, Inventori, Kas, Kasir, Transaksi, Laporan, Audit Log, Pengaturan, and a user profile for edinin Agus. The main area has a light background and displays a table titled 'Produk' with the subtitle 'Kecilis daftar produk yang dijual'. The table includes columns: GAMBAR, NAMA PRODUK, KATEGORI, HARGA, STATUS, and AKSI. It lists four items:

GAMBAR	NAMA PRODUK	KATEGORI	HARGA	STATUS	AKSI
	Chiki Jackpot (Idus)	Snack	Rp 80.000	Aktif	
	Kopi Kapal Api 24g (renceng)	Snack	Rp 12.000	Nonaktif	
	kepi luwsk	Kopi	Rp 2.000	Aktif	
	Liong bulan	Kopi	Rp 2.500	Aktif	

Below the table are buttons for 'Cari produk...' (Search product...) and '+ Tambah Prodok' (Add Product). At the bottom left is a 'Rows per page:' dropdown set to 10. A footer bar at the bottom right shows 'Page 1 of 1' with navigation arrows. A legend on the right side of the screenshot maps icons to features:

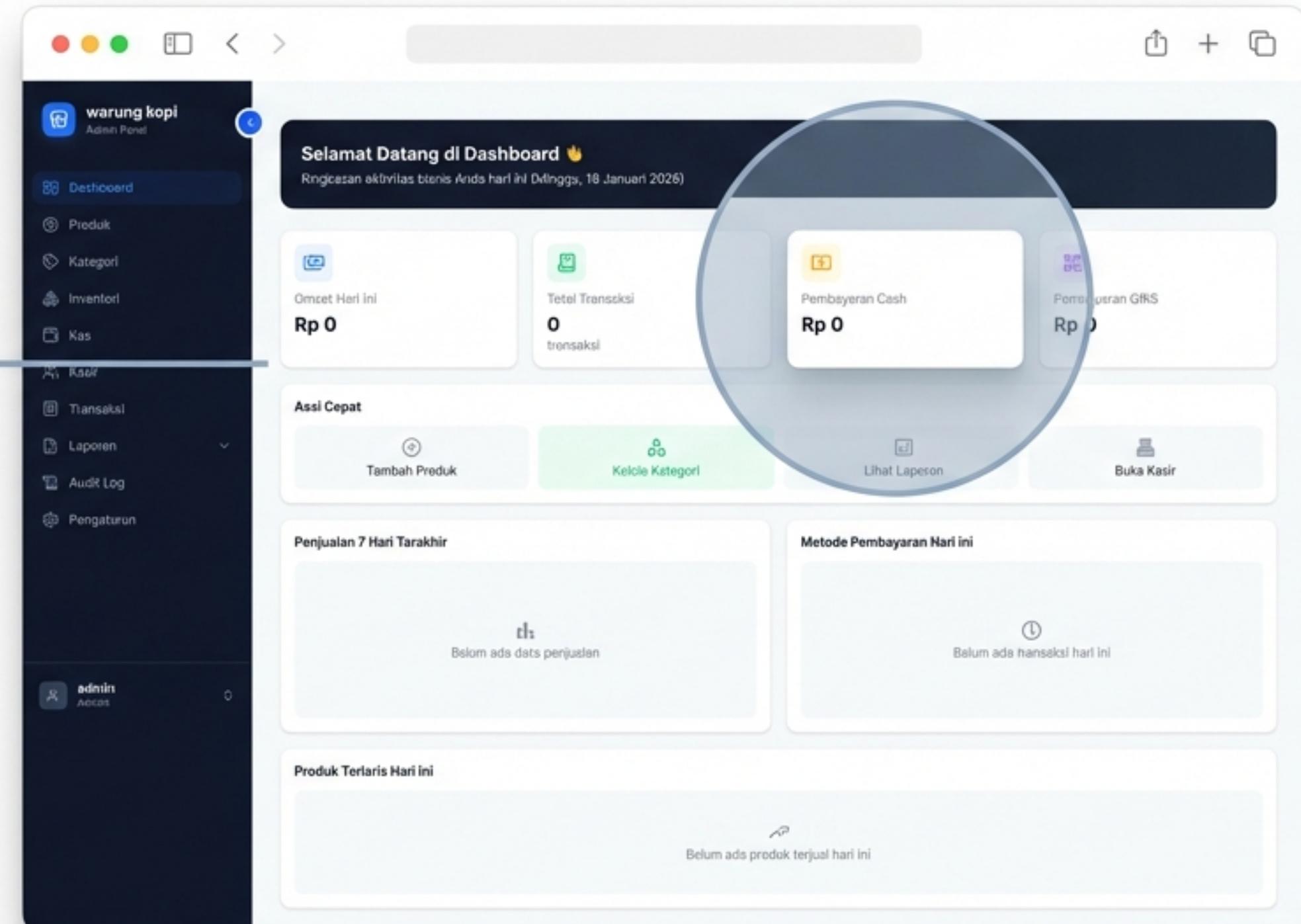
- CRUD Produk:** Tambah, edit, dan hapus.
- Kategorisasi:** Pengelompokan untuk pencarian cepat.
- Status Kontrol:** Nonaktifkan tanpa hapus data.

Dashboard Admin: Control Tower

Pandangan menyeluruh (**Helicopter View**) terhadap performa bisnis dalam satu layar yang responsif.

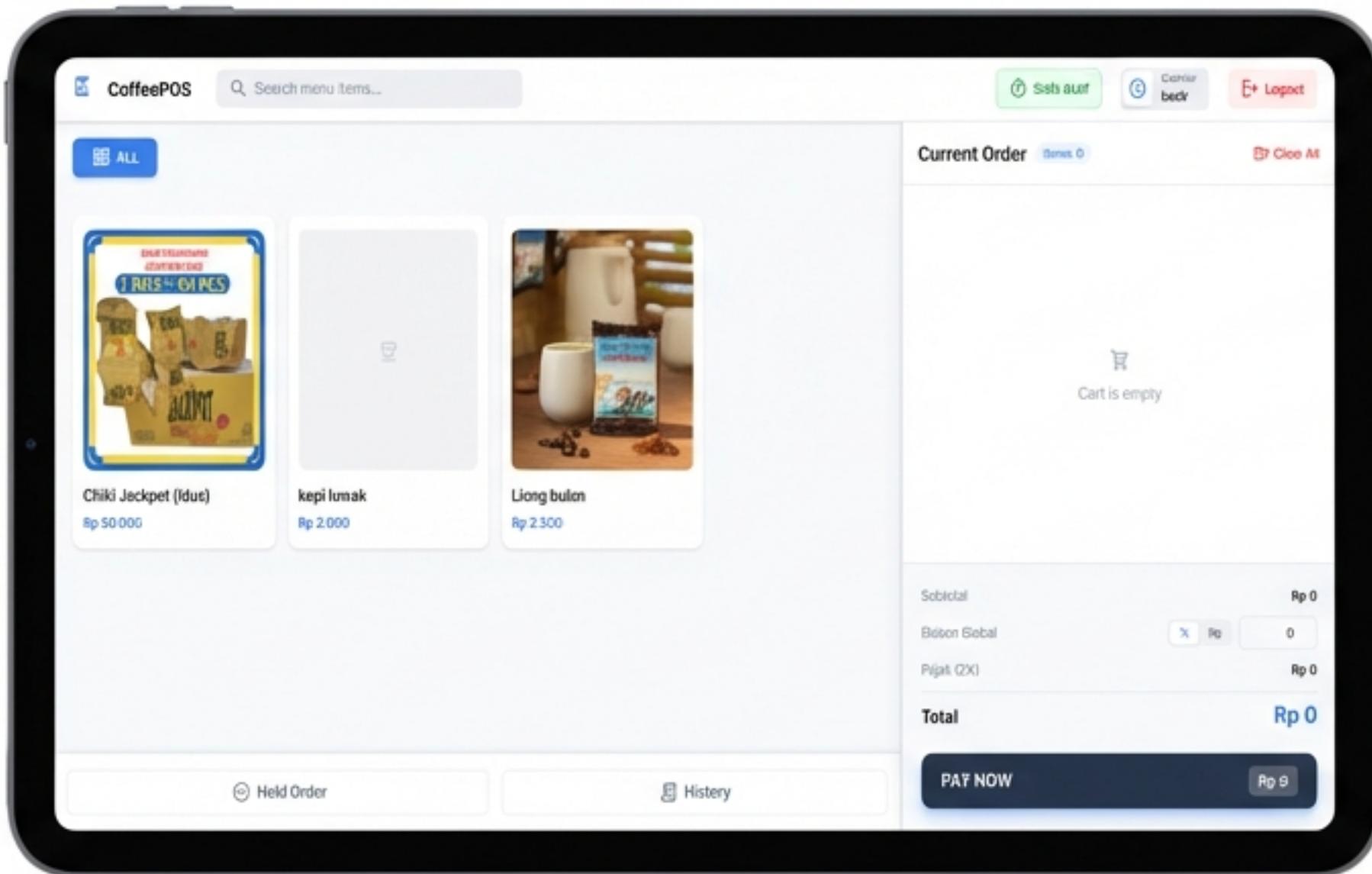
Real-time Metrics

- ⌚ Omset Hari Ini
- 📊 Total Transaksi
- 💳 Breakdown Pembayaran (Cash/QRIS)
- 🔒 Produk Terlaris



Antarmuka Kasir (POS)

Didesain untuk kecepatan transaksi dengan UX yang responsif dan minim hambatan.



-  **Visual Catalog:** Grid produk dengan gambar.

-  **Smart Search:** Pencarian instan item menu.

-  **Hold Order:** Tunda transaksi saat antrean panjang.

-  **Cart Management:** Edit kuantitas on-the-fly.

Alur Transaksi & Pembayaran

Mendukung fleksibilitas metode pembayaran modern dengan kalkulasi otomatis.



wartung kepi Admin Panel

Daftar Transaksi

18/01/2026

Invoice	Kasir	Items	Total	Metode	Status	Waktu	Aksi
WK-20260115-0003	Administrator	1	Rp 2.550	Cash	Selesai	18 Jan 2026, 00:08	
WK-20260115-0002	Kasir	1	Rp 5.440	QRIS	Selesai	18 Jan 2026, 00:02	
WK-20260110-0001	Administrator	2	Rp 104.895	Cash	Selesai	18 Jan 2026, 00:01	

- Multi-payment: Tunai & QRIS
- Auto-Calculation: Pajak & Diskon
- Output: Thermal Print (58mm/80mm) & PDF

Logika Inventori Real-time

Sistem pelacakan stok cerdas yang mencegah kebocoran aset inventory.

The screenshot shows a software interface for managing inventory in a coffee shop ('warung kopi'). The sidebar menu includes options like Dashboard, Produk, Kategori, Inventori (selected), Kas, Kacir, Transaksi, Laporan, Audit Log, and Pengaturan. The main area displays the 'Inventori / Stok' screen with sections for Total Produk (3), Br Stock (3), and Stok Menipis (0). It also shows a 'Daftar Produk' table with items like 'Liong bulan Kopi' (Stock: 99), 'kopliowak Kopi' (Stock: 100), and 'Chiki Jackpot (Idus) Snack' (Stock: 101). A 'Riwayat Terbaru' section lists recent transactions for various products. A central callout box states 'Admin sets Track Stock = ON'. Arrows point from this box to two outcome boxes: 'Transaksi Completed' (leading to 'Auto-Deduct Stock') and 'Transaksi Void' (leading to 'Return Stock'). A 'Tech Alert' box at the bottom right indicates a 'Low Stock Alert' for items with stock ≤ 5 units.

warung kopi
Aanin here!

Inventori / Stok
Kelola stok barang fisik di toko

Total Produk: 3 | Br Stock: 3 | Stok Menipis: 0

Filter: Semua | Stok Menipis

Daftar Produk

Produk	Track	Stok	Aksi
Liong bulan Kopi	<input checked="" type="checkbox"/>	99	+ - edit details
kopliowak Kopi	<input checked="" type="checkbox"/>	100	+ - edit details
Chiki Jackpot (Idus) Snack	<input checked="" type="checkbox"/>	101	+ - edit details

Riwayat Terbaru

Produk	Kegiatan	Jumlah	Tanggal
Liong bulan WX-20230116-0003	Keluar	-1	18 Jan, 00:08
Chiki Jackpot (Idus)	Masuk	+1	18 Jan, 00:05
Chiki Jackpot (Idus)	Masuk	+100	18 Jan, 00:05
kopliowak	Masuk	+100	18 Jan, 00:05
Liong bulan	Masuk	+100	18 Jan, 00:05
Liong bulan WX-20230116-0002	Keluar	-2	18 Jan, 00:02
Chiki Jackpot (Idus) WIV-32000110-0001	Keluar	-1	18 Jan, 00:01
Kecil Kepala Aoi 24g (...	Keluar	-1	18 Jan, 00:01
Liong bulan WK-20230116-0001	Keluar	-1	18 Jan, 00:01

Admin sets Track Stock = ON

Transaksi Completed → Auto-Deduct Stock

Transaksi Void → Return Stock

Tech Alert

Low Stock Alert: Notifikasi otomatis saat stok ≤ 5 unit.

Manajemen Shift & Sesi Kasir

Akuntabilitas penuh operasional melalui segmentasi sesi kerja (Shift).

The screenshot shows a POS software interface titled "Laporan Shift Kasir". On the left, there's a sidebar with navigation items like Dashboard, Produk, Kategori, Inventori, Kas, Kader, Transaksi, Laporan (selected), and Pengsturion. The main area displays shift statistics: Total Shifts (2), Total Penjualan (Rp0), Total Staf Aktif (2), and Total Selisih Kas (Pas). Below this is a table titled "Daftar Shift" showing two shifts. The first shift for "Administrator" on Jan 18, 2026, has a circled "Mulai" time of 00:08 and a circled "Selisih" status of "BdG". The second shift for "Kasir" on Jan 18, 2026, has a circled "Mulai" time of 00:01 and a circled "Selisih" status of "ADM".

Kasir	Tanggal	Mulai	Selesai	Transaksi	Penjualan	Kas Awal	Kas Akhir	Selisih	Status
Administrator	18 Jan 2026	00:08	-	0	Rp0	Rp0	-	-	BdG
Kasir	18 Jan 2026	00:01	-	0	Rp0	Rp0	-	-	ADM

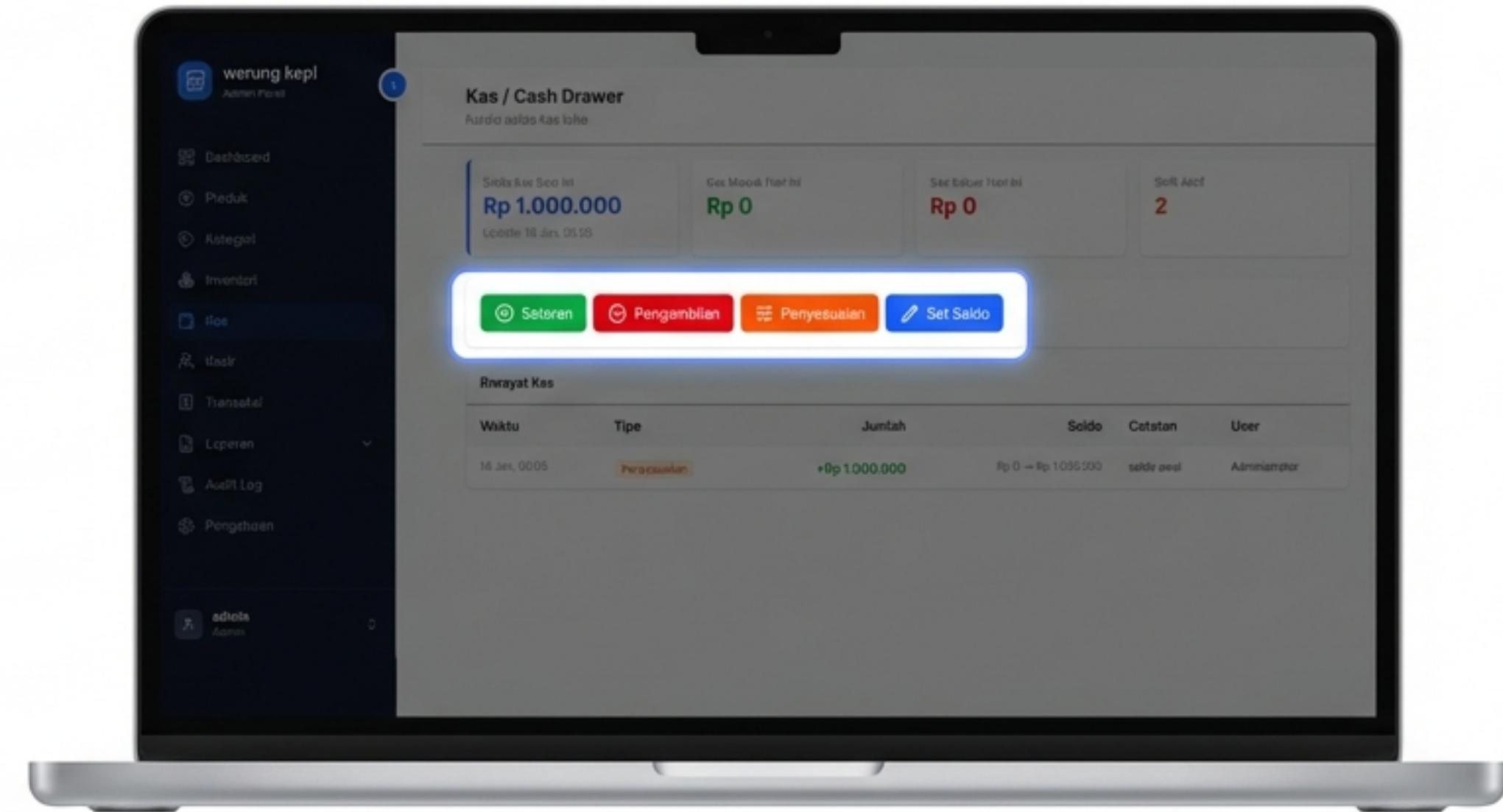
Time tracking (Mulai/Selesai)

Cash reconciliation (Selisih)

- Tracking Sesi:** Durasi & Penjualan per individu.
- Shift Validation:** Mencegah hapus user dengan shift aktif.
- Laporan Shift:** Rekapitulasi spesifik per sesi kerja.

Manajemen Kas (Cash Drawer)

Kontrol ketat atas aliran uang tunai di laci kasir dengan pencatatan mutasi digital.



Mutasi Manual: Deposit, Withdraw, & Adjust.



Integrasi Penjualan: Cash otomatis masuk saat tutup buku.



Audit Trail: Riwayat lengkap perubahan saldo.

Laporan & Analitik Data

Penyajian data historis yang akurat untuk pengambilan keputusan bisnis.

Summary Dashboard

Total Penjualan

Rp112.885

Transaksi

3

Cash

Rp107.445

QRIS

Rp5.440

Bulan Ini

Total Penjualan

Rp112.885

3 transaksi

Tahun Ini

Total Penjualan

Rp112.885

3 transaksi

Tech Highlight: Timezone Handling

- Backend: UTC Storage
- Frontend: WIB (UTC+7) Auto-conversion
- Source of Truth: BusinessDate

Penjualan Bulanan



Daily Report

Daftar Transaksi

Invoice	Jam	Total	Metode	Kasir	Item
WK-20260118-0003	00.08	Rp2.550	Tunai (Green)	Administrator	1
WK-20260118-0002	00.02	Rp5.440	QRIS (Blue)	Kasir	1
WK-20260118-0001	00.01	Rp107.445	Tunai (Green)	Kasir	2

Audit Log & Transparansi

Merekam jejak digital setiap aktivitas kritis untuk keamanan dan transparansi total.

Waktu	Aksi	Entitas	Deskripsi	User
17 Jan 2026, 23:38	User Dihapus	User #53ec0e5f	Menghapus user: kasir2 (kasir2)	Administrator
17 Jan 2026, 23:38	User Dihapus	User #53ec0e5f	Menghapus user: kasir2 (kasir2)	Administrator

Waktu	Aksi	Entitas	Deskripsi	User
17 Jan 2026, 23:38	User Dihapus	User #53ec0e5f	Menghapus user: kasir2 (kasir2)	Administrator
17 Jan 2026, 23:38	User Dihapus	User #53ec0e5f	Menghapus user: kasir2 (kasir2)	Administrator

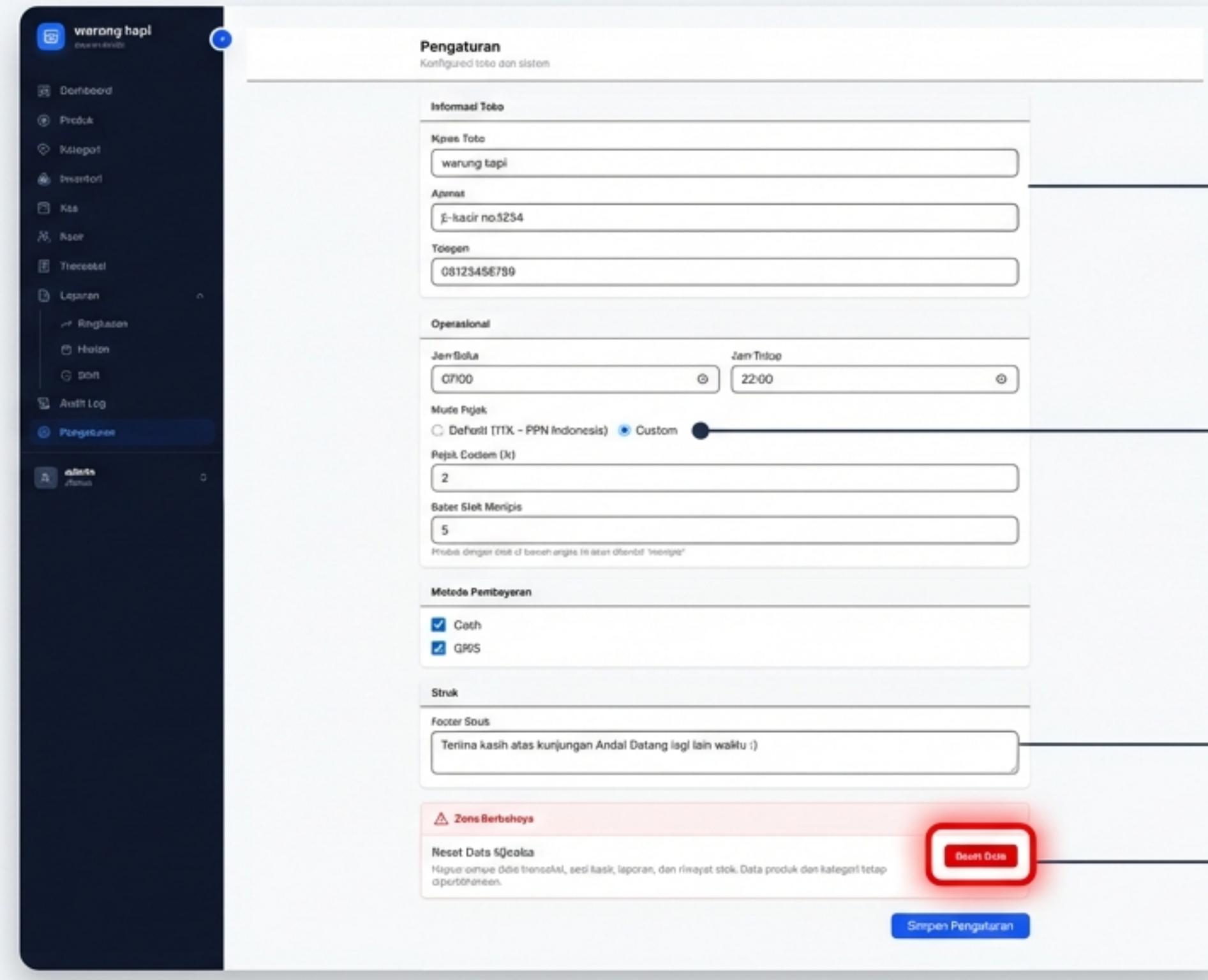
Data Points: Timestamp, Action, Actor, & Description.

Recorded Actions

- Login/Logout User
- Transaksi Void/Batal
- Perubahan Stok Manual
- Reset Password & Manajemen User

Pengaturan & Kustomisasi

Fleksibilitas konfigurasi sistem sesuai kebutuhan unik setiap outlet.



• Identitas Toko

• Mode Pajak:
Custom / PPN

• Footer Struk:
Custom Message

• Danger Zone:
Reset Data Uji Coba

API & Ekstensibilitas

Dibangun dengan pendekatan API-first yang memudahkan integrasi dan pengembangan lanjut.

POST /api/auth/login (Secure Auth)

POST /api/transactions (Core Transaction)

POST /api/stock/{id}/adjust (Inventory Control)

GET /api/reports/daily (Data Extraction)

Dokumentasi Swagger tersedia di **/swagger** dengan struktur kode modular.

Mengapa Memilih Kasir.NET?

Siap digunakan untuk operasional ritel modern.

-  Modern Tech Stack: .NET 9 & Next.js
-  Workflow Terintegrasi: End-to-end Operation
-  Keamanan Enterprise: Audit Log & RBAC
-  User Experience: Bersih & Responsif

