



PAUL BUSINESS SOLUTIONS

INDUSTRY-WIDE TECHNOLOGY SOLUTIONS

OFFICIAL MASTER PORTFOLIO — 2026 EDITION

Business Systems. Web Platforms. Automation.

"Understand the business first. Build the technology around it."

A comprehensive showcase of verified software products, custom multi-tenant billing architectures, high-aesthetic commercial web platforms, and turnkey IT deployments engineered for growing enterprises.

Operating Base

Kolkata, West Bengal,
India

Portfolio Focus

Commercial Systems, SaaS &
Infrastructure

Document Integrity

Verified Visual Evidence & Synthetic Test
Fixtures

COMPANY PROFILE & POSITIONING

Technology Rooted in Operational Reality

PAUL BUSINESS SOLUTIONS (PBS) is an industry-wide technology firm founded on the principle that sustainable digital transformation requires a deep understanding of core business operations. Headquartered in Kolkata, India, PBS designs, builds, and deploys high-performance software systems that solve real operational friction.

THE PBS OPERATING ETHOS

"Understand the business first. Build the technology around it."

Many organizations struggle with generic software suites that force business processes into rigid templates. PBS operates conversely: we analyze cashier lines, dining turnarounds, tax invoices, inventory shrinkage, and client engagement paths before engineering software to match and elevate the natural workflow.

Core Strategic Capabilities

PILLAR 1

Websites & Platforms

High-aesthetic, responsive web presences, interactive agency portfolios, and hospitality culinary showcases engineered for speed and conversion.

PILLAR 2

Custom Systems

Multi-tenant operating software, cashier POS stations, Indian GST compliance engines, sequential invoice locking, and real-time KDS tickets.

PILLAR 3

Automation & AI

Conversational commerce, natural language WhatsApp order simulators, instant line-item parsing, and automated cashier handoff triggers.

Delivery Standards & Integrity Safeguards

Server-Side Financial Accuracy

Zero reliance on client-side calculations. Decimal-precision Indian GST (CGST + SGST), gapless sequential numbering, and database-level row locking ensure accounting integrity.

Strict Privacy & Synthetic Data Protection

All demonstrations and portfolio exhibits operate strictly within verified synthetic data environments. Genuine client records and sensitive identities are never exposed in public materials.

ENTERPRISE SYSTEM DEMO

CUSTOM BUSINESS SYSTEMS

HOSPITALITY & POS

Restaurant OS — Multi-Tenant POS & Management

A complete, multi-tenant operating system built from the ground up for modern dine-in and takeaway restaurants, cafes, and multi-outlet chains. Features an authoritative server-side Indian GST calculation engine, high-speed cashier POS, interactive kitchen display system (KDS), and customer QR code ordering.

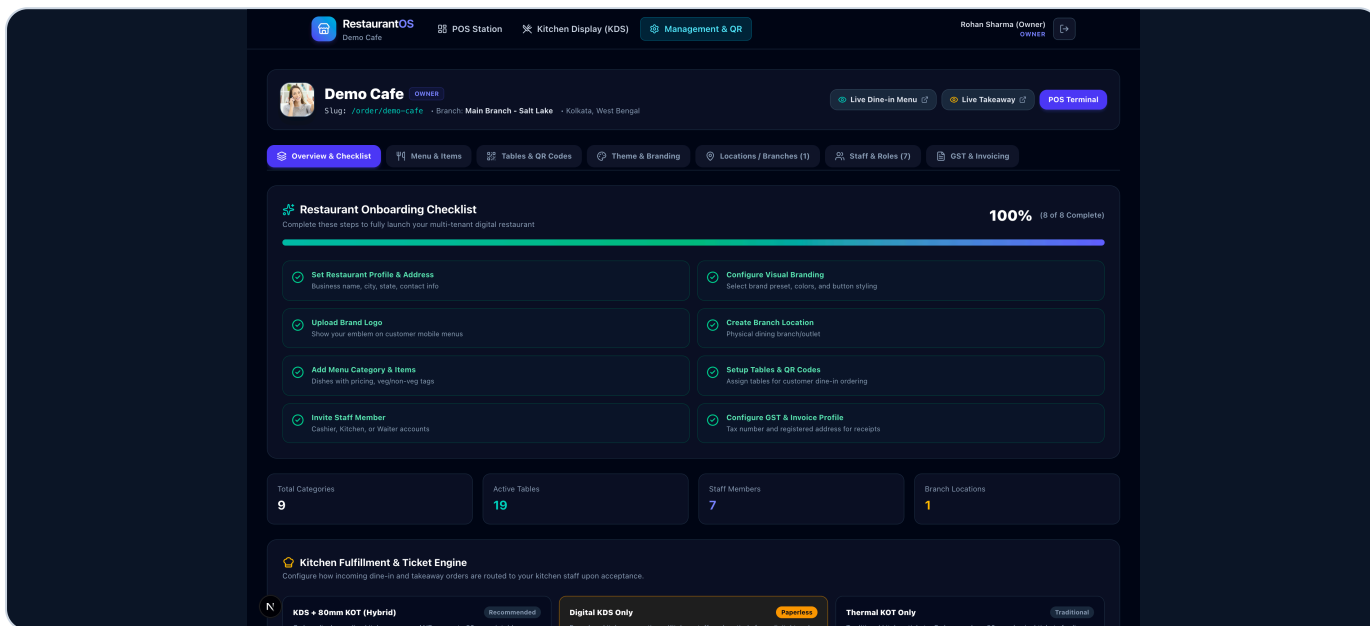
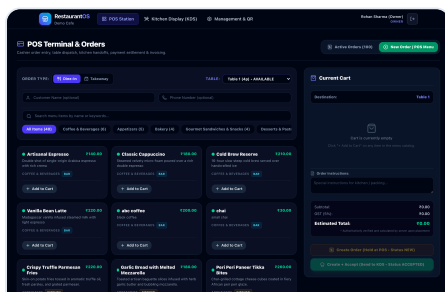
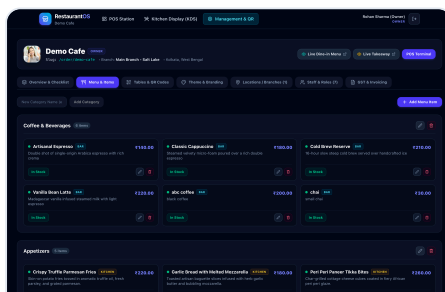


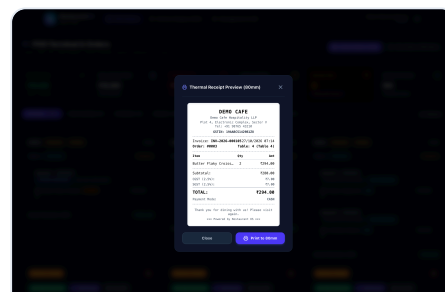
Figure 1.1: Administrative Dashboard — Showing tenant onboarding checklist (100% complete), branch indicators, and fulfillment modes.



Cashier POS: Quick category order entry, table dispatch, and live cart.



Menu Management: Multi-category dishes, INR pricing, and dietary tags.



Orders & Billing: Order status pipeline and 80mm thermal receipt modal.

Verified Technical Capabilities

- ✓ **Server-Side Indian GST Calculation:** Split CGST + SGST (2.5% + 2.5% for 5% restaurant tax) calculated server-side with exact Decimal precision.
 - ✓ **Hardware Print Formatting:** 80mm ESC/POS thermal receipt formatting and Kitchen Order Ticket (KOT) generation for physical line cooks.
 - ✓ **Customer QR Web App:** Zero-install mobile web app (/order/demo-cafe/table-1) enabling live table-side ordering.
- * Verification: Captured from isolated local instance with confirmed synthetic "Demo Cafe" tenant data.

INTERNAL SOFTWARE DEMO

CUSTOM BUSINESS SYSTEMS

FINANCIAL INVOICING & CRM

PBS Account System — Multi-Tenant Financial Platform

An enterprise billing, invoicing, and cash flow management SaaS built by PBS. Features atomic gapless GST tax invoice numbering, client CRM directory, multi-mode payment receipt reconciliation, expense disbursement ledgering, and real-time cash flow analytics.

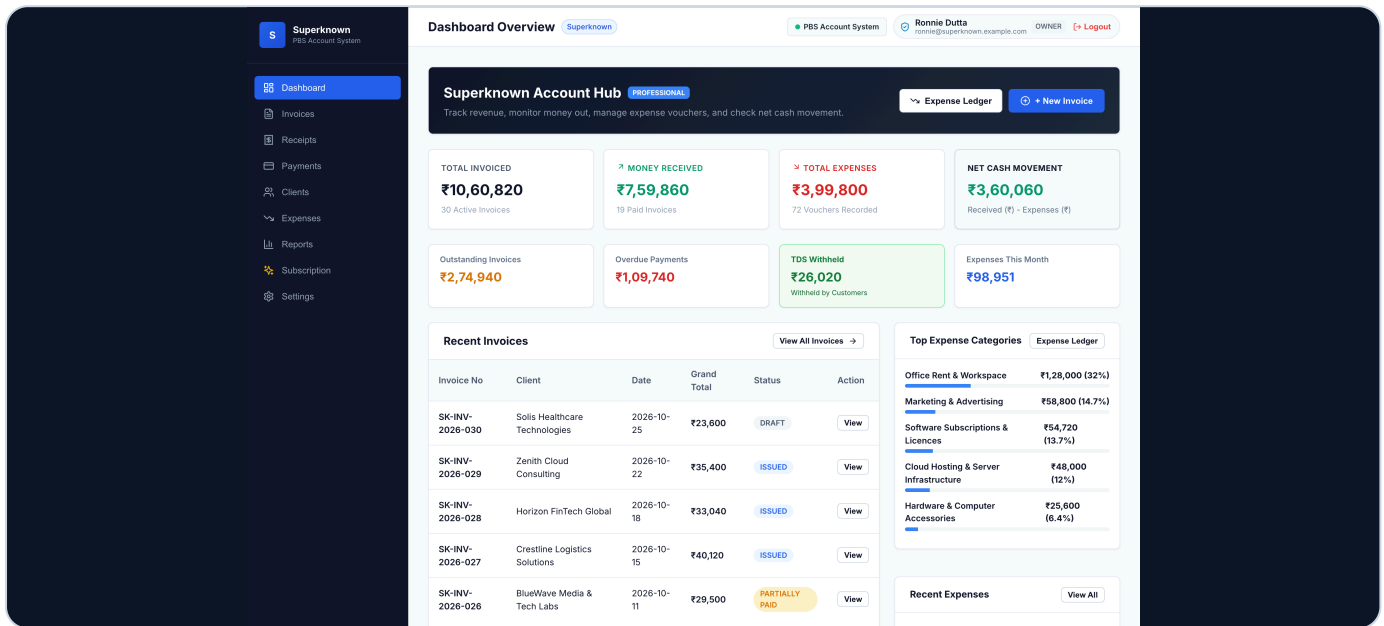
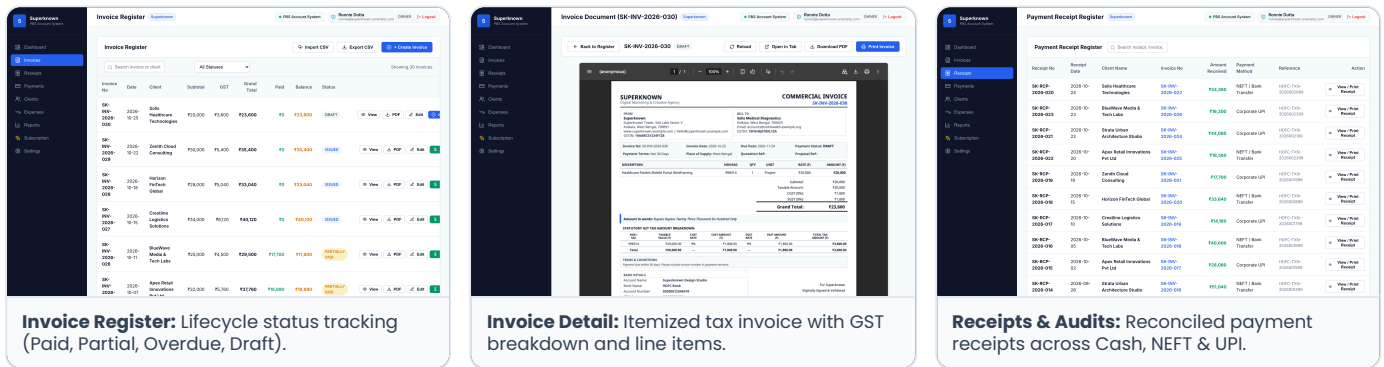


Figure 2.1: Executive Financial Dashboard — KPI summary cards, cash inflow/outflow indicators, and net movement ledger.



Verified Technical Capabilities

- ✓ **Gapless Sequence Locking:** Monotonically incrementing tax invoice numbers backed by row-level database locks to prevent skipped numbers.
- ✓ **Corporate Client CRM:** Manages enterprise client profiles, official GSTIN registrations, billing terms, and transaction histories.
- ✓ **Operational Expense Ledger:** Tracks disbursements across 12 operational categories with voucher attachments and audit logs.

* Verification: Captured from isolated demo database with 100% synthetic tenant data (Superknown profile).

CONCEPT DEMO

AUTOMATION & AI

CONVERSATIONAL RETAIL

Grocery OS — Retail Operations & WhatsApp AI

An omnichannel retail operations SaaS concept designed to bridge neighborhood grocery stores with digital customer ordering. Features a conversational WhatsApp order simulator that automatically parses natural-language grocery messages into structured line-item order cards.

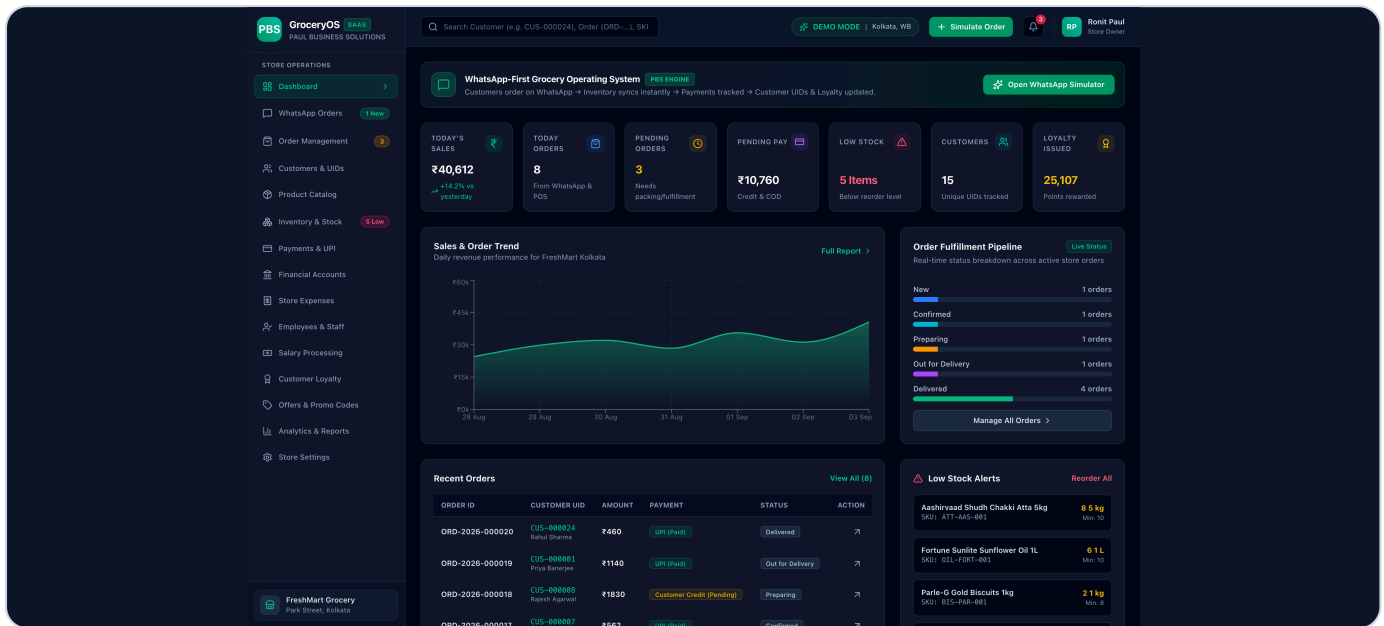
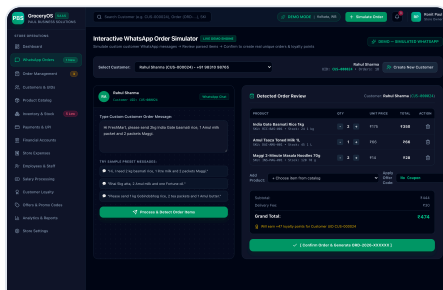
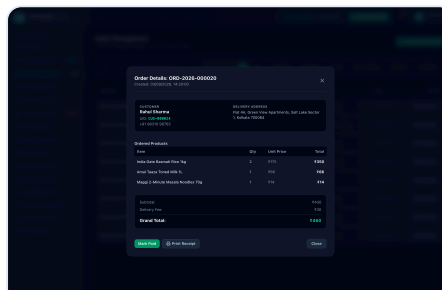


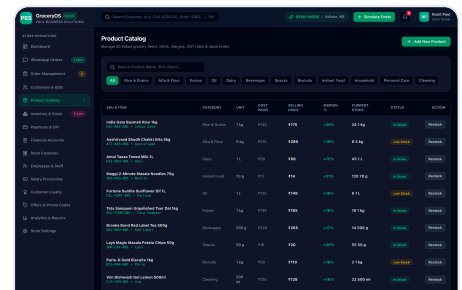
Figure 3.1: Retail Store Dashboard — Revenue indicators, order volume metrics, and FMCG product category performance.



WhatsApp Simulator: AI customer chat and parsed order card review.



Pipeline Workflow: Order status pipeline and receipt simulator modal.



SKU Inventory: Product catalog, FMCG margins, and stock alerts.

Verified Technical Capabilities

- ✓ **Conversational Order Parser:** Simulates WhatsApp messages and extracts SKUs, quantities, and customer requests into structured order cards.
- ✓ **1-Click Cashier Acceptance:** Seamless bridge between incoming WhatsApp messages, inventory depletion, and thermal receipt generation.
- ✓ **FMCG Catalog & Margins:** Real-time margin tracking across grocery categories with low-stock warnings.

* Live Demo Available: <https://pbs-grocery-stores-os.vercel.app> (FreshMart synthetic demo data).

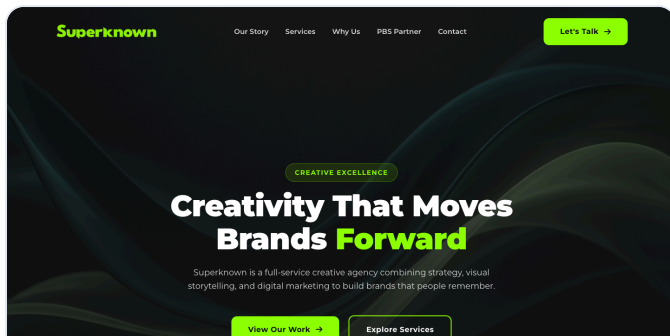
CLIENT WEBSITE

WEBSITES & PLATFORMS

CREATIVE AGENCY

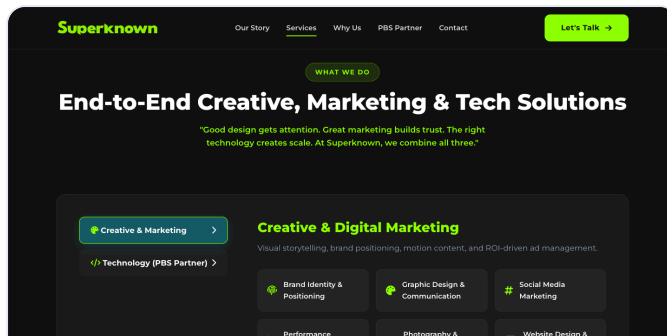
Superknown — Agency Web Showcase

A high-impact commercial web platform for Superknown, an end-to-end creative and technology agency. Delivers dynamic hero storytelling, an interactive solutions catalogue, and core values presentation.



Desktop Hero: Interactive slider conveying agency momentum.

* Verified Live Commercial Website: <https://www.superknown.in>



Solutions Catalogue: Creative & tech service engagement cards.

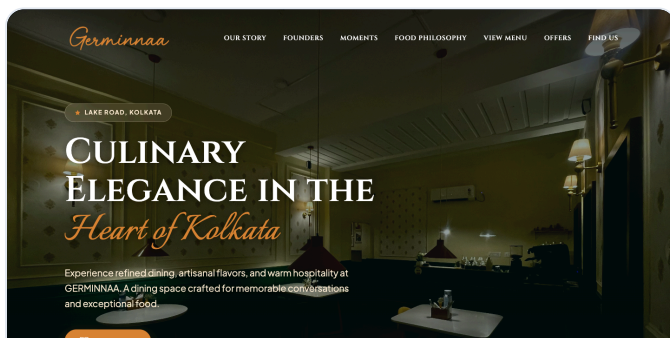
CLIENT WEBSITE

WEBSITES & PLATFORMS

FINE DINING HOSPITALITY

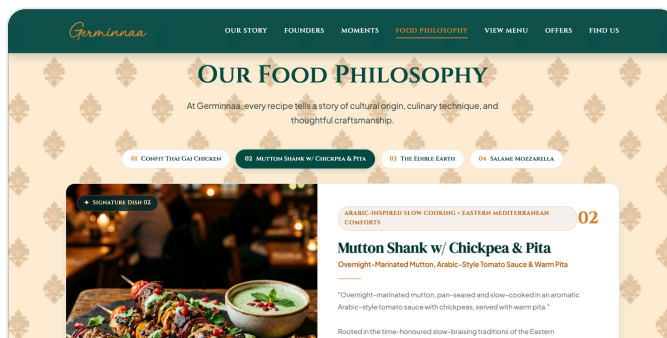
Germinnaa — Fine Dining Culinary Platform

An understated, high-aesthetic culinary platform for Germinnaa, situated at Lake Road, South Kolkata. Reflects the restaurant's interior ambience, European gastronomic philosophy, signature menus, and reservation details.



Culinary Elegance: Hero presentation showcasing restaurant brand.

* Verified Live Commercial Website: <https://germinnaa.com/>



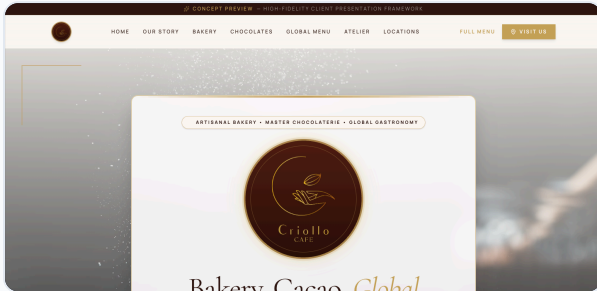
Menu Philosophy: Selected signature dishes and ingredient narrative.

CONCEPT DEMO

HOSPITALITY CONCEPT

Criollo Cafe — Artisanal Chocolaterie

An immersive hospitality concept showcasing single-origin bean-to-bar cacao craftsmanship, slow confectionery atelier, and tasting reservations.



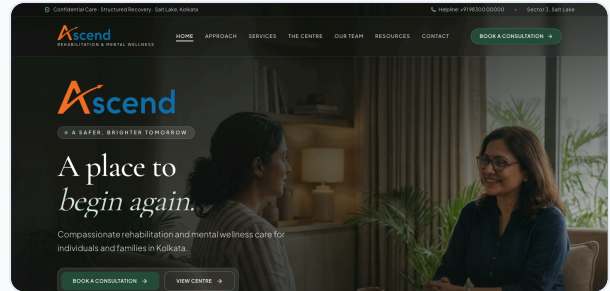
* Live Demo: <https://criollo-website-demo.vercel.app>

CONCEPT DEMO

WELLNESS SHOWCASE

Ascend Demo Website — Care Centre

A serene clinical rehabilitation showcase presenting care programmes, architectural facility tours, and confidential intake workflows.



* Live Demo: <https://ascend-website-demo.vercel.app>

CLIENT IMPLEMENTATION

TURNKEY IT INFRASTRUCTURE

Divine Fellowship — Turnkey IT Infrastructure & Workstation Deployment

An on-premise IT modernization initiative executed by PBS. Required replacing fragmented personal computer setups with a unified, high-reliability local network, dedicated employee workstations, endpoint configuration, and central printing integration.

Structured Cabling

High-speed local networking, router termination, and rack installation.

Workstations

Procurement, OS imaging, security profiles, and workstation rollout.

On-Site Handoff

Staff onboarding, peripheral printing setup, and physical validation.

* Verification: Completed on-premise physical deployment. Technical network topologies protected under client privacy.

TECHNICAL DELIVERY STANDARDS

Architectural Foundations for High-Stakes Operations

Software supporting payments, tax compliance, and live kitchen dispatch cannot afford subtle concurrency errors or rounding anomalies. PBS enforces explicit engineering constraints across every solution.

1. Authoritative Server-Side Decimal Tax

JavaScript floating-point math (`0.1 + 0.2 !== 0.3`) is strictly forbidden for financial calculations. PBS backend services utilize Python's `Decimal` precision with bankers' rounding (`ROUND_HALF_UP`) to guarantee mathematical parity with GST authority portals.

2. Atomic Gapless Numbering & Locks

Statutory invoices must be sequential without gaps. PBS utilizes PostgreSQL row-level locks (`SELECT ... FOR UPDATE`) on sequence counters within atomic database transactions, preventing race conditions even during simultaneous cashier checkouts.

3. Multi-Tenant Architectural Segregation

Whether managing multi-brand cloud restaurants or enterprise accounting tenants, PBS enforces tenant ID filtering at the base repository and ORM layer. Data leakage across tenants is architecturally precluded.

4. Real-World Hardware Interfacing

From ESC/POS thermal command streams to browser 1-click thermal printing stylesheets and WebSocket kitchen buzzers, PBS systems interact seamlessly with the physical counter hardware restaurants and retail stores rely on.

Master Technology Stack Reference

Backend Engines

Python FastAPI
SQLAlchemy 2.0
Pydantic v2
Alembic

Datastores

PostgreSQL 16
Redis Cache
Row Locks
Decimal Types

Frontend / UX

Next.js 16
React 19
TypeScript
Tailwind CSS

Operations

ESC/POS Printers
WebSockets
Vercel Edge
Structured LAN

PROJECT INQUIRIES

Partnering with PAUL BUSINESS SOLUTIONS

PBS engages with select enterprises, retail operators, hospitality groups, and growing organizations seeking robust, tailored technology execution.

How We Engage

Our project lifecycles follow a structured, transparent trajectory designed to protect your investment:

- 1. Operational Discovery:** We analyze current workflows, pain points, cashier volume, and integration needs.
- 2. Architecture & Proof-of-Concept:** We design the database schema, tax rules, and user journey before building.
- 3. Rapid Prototyping:** Interactive milestones with synthetic test environments allow early validation.
- 4. Production Deployment:** On-site or cloud rollout with staff training, hardware integration, and ongoing stability.

Contact Information

HEADQUARTERS & OPERATIONS

Kolkata, West Bengal, India

Regional on-site execution & remote enterprise solutions

OFFICIAL INQUIRIES CHANNEL

PAUL BUSINESS SOLUTIONS

[Official Inquiries Channel Pending Final Operational Authorization]

RESPONSE COMMITMENT

Qualified enterprise consultation inquiries reviewed within 24–48 business hours.

PAUL BUSINESS SOLUTIONS

“Understand the business first. Build the technology around it.”

Committed to architectural longevity, measurable client business efficiency, and uncompromised engineering integrity.