

Introduction: From Operational Overload to Strategic Clarity

The proposed solution is a unified, intelligent platform centered around an AI agent. This system is designed not as a passive tool, but as a proactive business analyst. By allowing owners to manage their operations through natural language, the system aims to eliminate the complexity and tedious data entry that characterize existing software. The following user stories are built on this core principle, reimagining standard ERP tasks as simple, conversational interactions that empower the owner to move from "fire-fighting" to strategic, data-driven decision-making.

AI-Agent ERP for Small Restaurants – User Stories

Epic 1: Purchasing & Inventory

Priority	User Story	Task Example
Must-have	As a manager, I want to tell the AI about new stock purchases by forwarding an invoice or sending a simple message, so the system updates inventory automatically.	User uploads a supplier invoice PDF; AI parses it and confirms stock update.
Must-have	As a chef/manager, I want to ask the AI about current stock levels in real-time, so I can plan daily operations without checking a complex dashboard.	User asks, "Hey, how many kilos of tomatoes do we have left?"
Must-have	As a manager, I want the AI to proactively alert me when stock is low and	AI sends a notification: "Heads up! You're low on

	suggest a reorder list, so I can act before we run out.	tomatoes and onions. Ready to order?"
Nice-to-have	As a manager, I want the AI to draft purchase orders for my approval based on sales trends and stock levels, so I can save time on procurement.	AI suggests: "Based on last week's sales, I've drafted a purchase order for your main supplier. Please review."
Nice-to-have	As a staff member, I want to scan a product's barcode or QR code and have the AI instantly recognize and update the inventory, so data entry is faster and more accurate.	User scans a box of chicken; AI confirms, "Got it. 20kg of chicken added to stock."

Epic 2: Kitchen & Menu Management

Priority	User Story	Task Example
Must-have	As a chef, I want to describe a recipe to the AI in natural language, so the system can automatically link ingredients and track usage when a dish is sold.	Chef says: "The 'Frango à Parmegiana' uses 200g chicken, 100g cheese, and 150ml tomato sauce."
Must-have	As a manager, I want to ask the AI for the cost and profit margin of any dish, so I can make	Manager asks: "What's the profit margin on our 'Frango à Parmegiana'?"

	informed pricing decisions.	
Must-have	As a chef, I want to ask the AI how many portions of a dish I can make with the current stock, so I can manage the daily menu effectively.	Chef asks: "How many 'Frango à Parmegiana' can we sell tonight?"
Nice-to-have	As a manager, I want to tell the AI to update the menu, and have it instantly reflect on the POS and digital displays, so changes are seamless.	Manager says: "Remove the 'Tilapia' from today's menu."
Nice-to-have	As a chef, I want to tell the AI a dish is out of stock, so it's immediately unavailable for servers and online orders.	Chef says: "We're out of 'Frango à Parmegiana' for the night."

Epic 3: Front-of-House (POS & Orders)

Priority	User Story	Task Example
Must-have	As a server, I want to use a simple, intuitive interface to take orders that are sent directly to the kitchen, minimizing errors and speeding up service.	Server taps on visual representations of menu items on a tablet.

Must-have	As a manager, I want to ask the AI for sales insights, such as "What was our best-selling dish today?" so I can understand performance without running manual reports.	Manager asks: "Show me a summary of today's sales by category."
Nice-to-have	As a customer, I want to order via a QR code that opens a simple, mobile-friendly menu, so I can order at my own pace.	The web interface is clean, with clear images and descriptions.
Nice-to-have	As a manager, I want to tell the AI to create a promotion, like "happy hour for all beers," and have it apply automatically during the specified time.	Manager says: "Set up a 2-for-1 promotion on all draft beers from 6 PM to 8 PM tonight."

Epic 4: Finance & Accounting

Priority	User Story	Task Example
Must-have	As a manager, I want to ask the AI for a daily business summary, including sales, key expenses, and profitability, so I get a quick snapshot of our financial health.	Manager asks: "How did we do yesterday?"
Must-have	As a manager, I want a simple dashboard where	The main screen displays 3-4 key metrics

	the AI highlights key financial metrics (revenue, costs, profit), so I can see the most important information at a glance.	with trends (e.g., Revenue is up 5% this week).
Must-have	As a manager, I want to forward supplier invoices and expense receipts to the AI, so they are automatically categorized and recorded.	Manager sends a photo of a receipt to a dedicated system address.
Nice-to-have	As a manager, I want to ask the AI for a cash flow projection based on recent trends, so I can anticipate financial needs.	Manager asks: "Project our cash flow for the next 30 days."
Nice-to-have	As an owner, I want the AI to generate simplified tax summaries (like sales tax) upon request, so I can easily share them with my accountant.	Owner asks: "Generate the sales tax report for last month."

Conclusion: Translating Stories into an Interface

These user stories define what the user needs to accomplish and why. The next logical step is to visualize how these interactions will happen. To do this, we developed a wireframe that translates these conversational goals into a tangible user interface. The wireframe will serve as a low-fidelity blueprint for the application, focusing on the layout, user flow, and the core interaction model between the restaurant owner and the AI business analyst. This will ensure the final design

remains centered on the primary value proposition: simplicity, accessibility, and proactive, intelligent assistance.

Wireframe

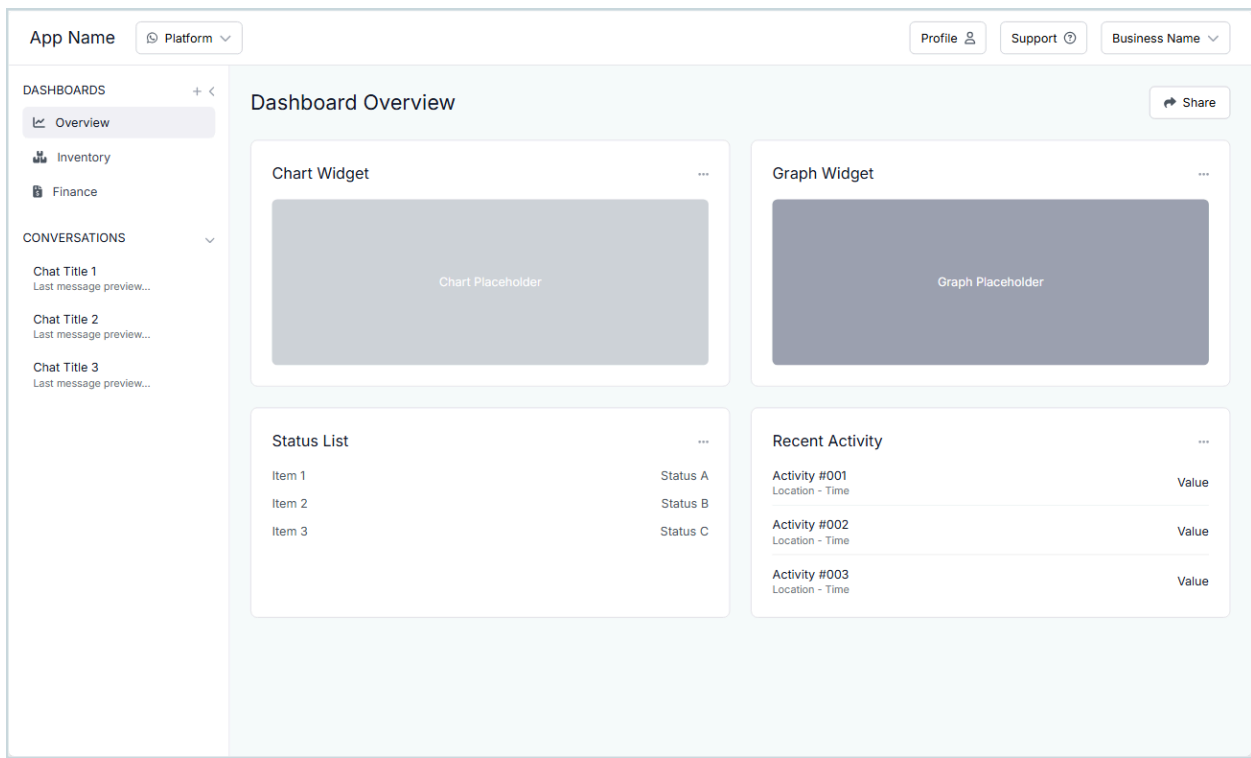
Introduction to the Wireframe Design

This wireframe serves as the preliminary visual translation of the proposed AI-powered management solution. Its design is guided by the core strategic objective: to create a tool that is not merely a passive data repository, but an active partner in business management. The fundamental architecture is a dual-interface system, which synergizes a conventional dashboard for high-level monitoring with a conversational AI assistant for deep, contextual analysis and task execution. This structure ensures that the user can immediately access critical performance indicators while also being able to perform complex operations through an intuitive, natural language interface. The design thus directly embodies the solution's value proposition of delivering sophisticated analytical power through a simplified and accessible user experience.

Addressing Core User Pains Through Interface Design

The user interface is engineered to systematically dismantle the primary pain points identified in the user journey map. The most significant barrier, the inherent complexity of traditional ERP systems, is directly mitigated by the centrality of the **AI Assistant**. This conversational interface abstracts the system's complexity, allowing the owner to execute commands and retrieve information without navigating dense menus or learning specialized functions. The operational burden of manual data entry, a critical consumer of the owner's time, is addressed by enabling tasks like invoice processing through simple file uploads or messages within the chat interface. This transforms a time-consuming chore into an efficient, delegated action. Finally, the design addresses the difficulty of translating raw data into actionable intelligence. While the **Dashboard Overview** presents key metrics, the **AI Assistant** provides the analytical layer, enabling the user to interrogate the data,

understand underlying trends, and receive proactive suggestions, thereby closing the gap between information and strategic decision-making.



(Figure 1: Dashboard Wireframe (panel). Source: From Author)

Main Features and Architectural Components

The functionality of the system is delivered through several core architectural components that work in concert. The Unified Dashboard serves as the primary visual touchpoint, presenting a customizable grid of widgets that display key performance indicators for an immediate, at-a-glance assessment of business health. The system's centerpiece is the Conversational AI Agent, an interactive chat interface that functions as the main control plane for the entire application, handling queries, data input, and complex analytical tasks. Navigation between these two functional modes is facilitated by a persistent dual-navigation sidebar, which provides seamless access to both high-level Dashboards and specific conversational threads. This structure ensures that both a strategic overview and deep, contextual analysis are readily accessible.

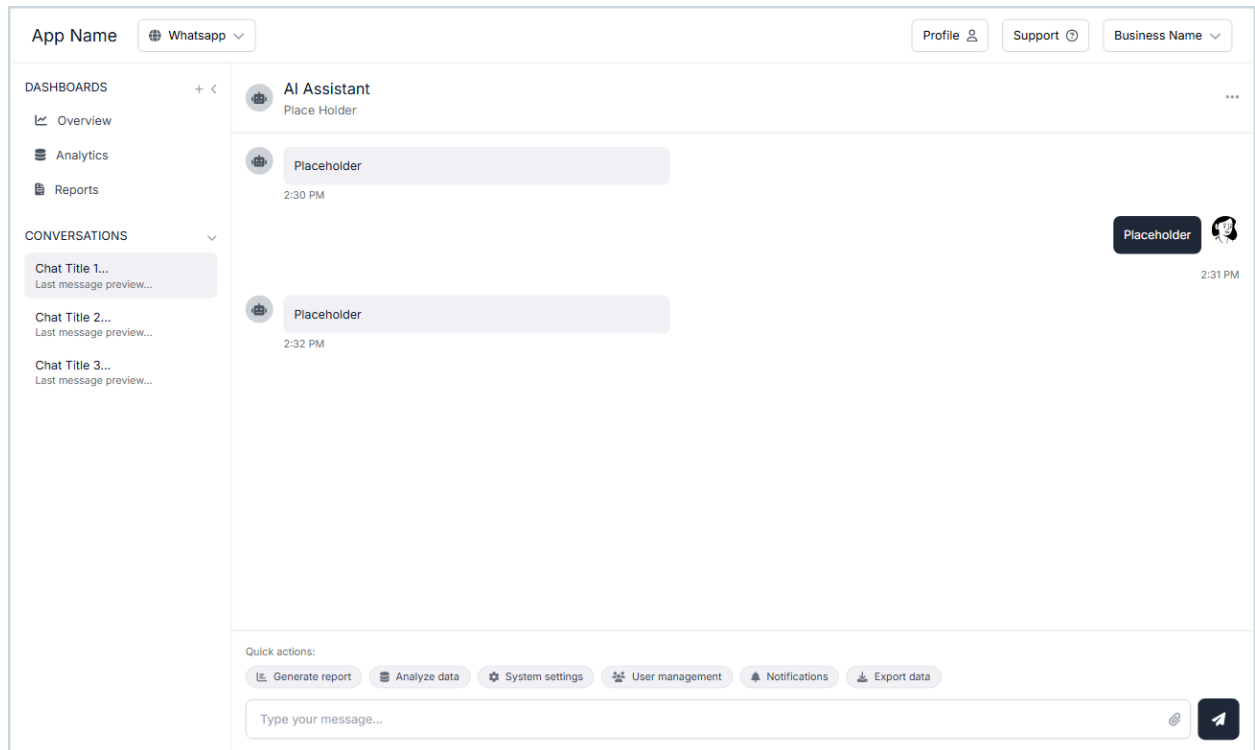
Detailed Component Analysis of the Wireframe

Each element is positioned to support the dual-interface system, ensuring a logical flow between data consumption and interactive task management.

The Top Header Bar serves as the global navigation and context-setting layer for the application. Positioned at the apex of the interface, it houses non-contextual functions that remain accessible regardless of the user's position within the system. It consists of the application's name alongside a platform integration with WhatsApp selector, which allows the user to configure and manage external communication channels. The goal of the Whatsapp channel is to serve three parties: The admin, for consulting the business data whenever and wherever; The operator, for order taking, invoice uploading and other tasks; and finally the client for questions and ordering at his own pace. It also contains essential administrative controls for user profile management, access to support resources, and a business entity switcher, which enables users who manage multiple establishments to seamlessly transition between different operational contexts.

The Dual-Navigation Sidebar is a primary organizational component, structurally dividing the user's focus between high-level data visualization and direct interaction with the AI. It is composed of two distinct, collapsible sections: the Dashboards panel and the Conversations panel. The Dashboards section provides hierarchical access to pre-made data views, allowing the user to select their desired analytical lens. The Conversations section functions as a history log, listing recent interactions with the AI Assistant. Each entry provides a title and a message preview, facilitating quick re-engagement with specific analytical threads or ongoing tasks.

The Main Content Area is a dynamic space that renders one of two primary views based on the user's selection in the sidebar. The default state is the Dashboard View, which functions as the system's primary data visualization canvas. This area is headed by a clear title indicating the current dashboard and is structured as a modular grid. This grid is populated by individual widgets that could show formats such as charts, graphs, tables, status lists, and recent activity feeds. Each widget is an information module designed for rapid data absorption and alerts and includes its own set of controls accessed via a three-dot menu



(Figure 2: Dashboard Wireframe (chat). Source: From Author)

The user experience is further enhanced by **Contextual Quick Actions**, which are dynamically presented shortcuts that anticipate user needs based on the conversational context, streamlining common workflows and guiding the user toward efficient task completion. The goal is to have quick actions for daily needs such as adding a new worker, promoting a new sale (happy-hours, holidays etc), a new dish and any other user needs that in a traditional ERP would be hidden behind a maze of menu bars.