CleverMart - AI Smart Shop Platform

Empowering small business owners with AI-driven shop operations and smart customer experience

App Concept

CleverMart is a dual-mode application designed for:

- Business Owners: Manage store operations, financials, inventory, and reports.
- **Customers**: Interact via QR scan and AI Assistant (chat/voice) to browse products, place orders, and get instant help.

App Architecture Overview

Layer	Components
Frontend (Power Apps)	Owner Dashboard, Customer Chat App, QR Code Entry Screen
Backend (SharePoint)	Products, Orders, Customers, Inventory, Transactions, Invoices
Automation	Power Automate (Flows for ordering, invoicing, notifications, AI calls)
Al Services	Power Virtual Agents (Chatbot), Azure Cognitive Services (Voice/Text)
Data Intelligence	Power BI Embedded (Sales and Inventory Reports)

Core Features by Role

Business Owner Features (via Power Apps Canvas App)

- Product Management (Add/Edit/Delete)
- Status Update
- is Finance & Invoicing (Auto-PDF generation via Power Automate)

- II Sales & Inventory Reports (Power BI Embedded)
- 🔔 Stock Alerts, Customer Orders via Notification Flow

© E Customer Experience (QR → Chat)

- Scan QR → Launch AI assistant (Power Virtual Agents)
- Browse Products via chat/voice
- Place order via conversational flow
- Receive invoice via email or chat
- Talk to Voice Assistant (Azure Speech to Text)

ひ Services and Data Flow

1. QR Scan & Entry Flow

- Power Apps generates a unique QR code (via Power Automate).
- QR redirects to PVA chat page OR launches the app directly.

2. Customer Chatbot Flow

- Built in Power Virtual Agents
- Queries SharePoint using Power Automate flows
- Fetches products, validates stock, creates orders

3. Order Placement Flow

- PVA triggers Flow to:
 - Log order in SharePoint
 - o Calculate total and apply discounts
 - Trigger invoice generation

4. Invoice Generation Flow

• **Trigger**: New confirmed order

- Compose invoice using Word template or HTML
- Save PDF to SharePoint / Email to customer

5. Voice Interaction

- Azure Speech-to-Text + PVA to enable spoken queries
- Azure TTS reads order summary or products aloud

✓ Components Breakdown

SharePoint Lists

List Name Key Fields

Products Name, SKU, Price, Description, StockQty, Image, Category

Orders Customer, OrderDate, Status, TotalAmount, LineItems (JSON/Text)

Customers Name, Phone, Email, LastPurchase, PreferredLang

Invoices OrderID, PDFLink, DateIssued, TotalAmount

Al Assistant Configuration (Power Virtual Agents)

Intents:

- "Browse products"
- "What's the price of [item]?"
- "I want to buy something"
- "Where is my order?"

Power Automate Flows (from PVA):

- GetProductsList
- PlaceOrder
- CheckOrderStatus
- GenerateInvoice

Voice Support:

• Azure Direct Line Speech for voice input/output

Power BI Integration (Owner Dashboard)

Embed a report inside Power Apps to track:

- Top selling products
- Revenue trends
- Stock levels
- Daily orders

Al Services

Feature Tool

Chatbot Assistant Power Virtual Agents

Voice Interaction Azure Speech Services

Text-to-Speech Azure Cognitive Services

Order Prediction (future) Azure ML or GPT prompts

UI/UX Layout Suggestions

Owner App

• **Home**: KPIs, Daily Orders, Alerts

• **Products**: Gallery + Edit

• Orders: Status Update

• Reports: Embed Power BI

• **Settings**: QR Code Setup, Preferences

Customer Chat App

• Welcome → "Scan QR to start"

- PVA Web Chat (embedded)
- Voice Button (enabled if speech available)

Power Automate Flows

Trigger	Purpose
r From PVA	Add order, calculate total, confirm
Order Completed	Create PDF invoice and email it
Scheduled (daily)	Alert if any product is below threshold
On Product Created	I Generate QR code for shop/product
Voice query in PVA	Convert product info to audio
	From PVA Order Completed Scheduled (daily) On Product Created

Pros and X Cons of This Architecture

✓ Pros	X Cons
Full Microsoft stack — seamless integration	May need premium license for Azure/OpenAl connectors
Scales easily across stores/shops	Limited real-time stock sync if large-scale traffic
Al-first interface (chat + voice) with zero coding	Advanced features may require custom connectors
Easy reporting and visibility through Power BI	Requires careful data design to avoid duplication across flows
Mobile/tablet support out of the box	Azure AI billing could scale with heavy use

m Suggested Development Timeline

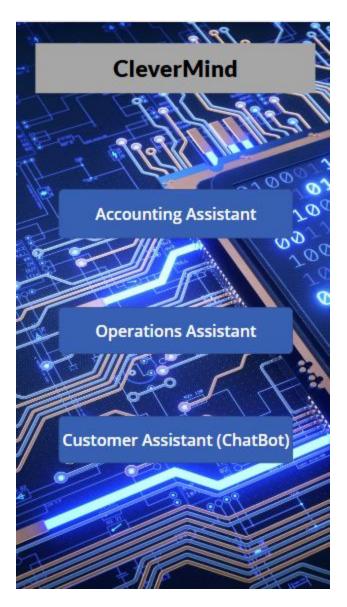
Day Task

- 1 Finalize data model + SharePoint list setup
- 2-3 Build Power Apps Owner dashboard + test product management
- 4 Setup QR generation + customer redirection
- 5-6 Build and connect PVA chatbot (chat + product ordering)
- 7 Add invoice generation + email flow
- 8 Integrate Azure TTS/Voice + test chat flows
- 9 Build Power BI dashboard + embed in Owner app
- 10 End-to-end testing, polish UI, deploy

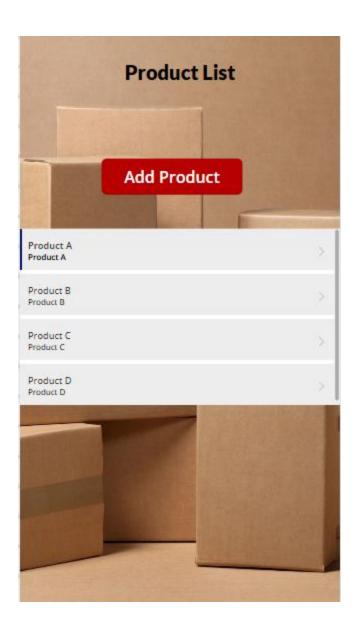
Task 2

Sketch App Wireframes

1-Home Screen



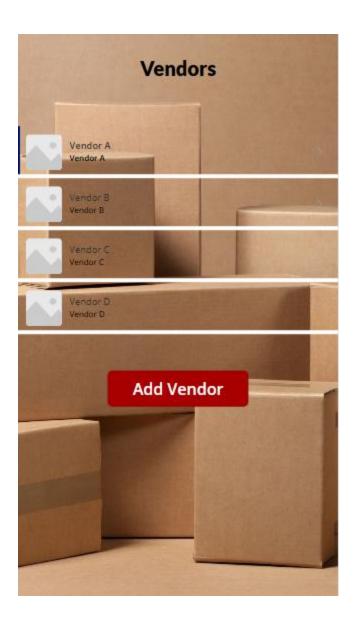
2- Products Screen



3-Orders Screen



4-Vendors Screen



5-Insights Screen

