

CASE STUDY 01 OF 03 | CAPONE FOOD

User Experience, Food Catalogue & Promotions

Browsing categories, discovering deals, and building a seamless shopping journey

#UX #Catalogue #Promotions #Accounts

Overview

Capone Food is a retail-focused food delivery platform built for customers who buy in volume. Unlike typical on-demand delivery apps, the platform is designed around the behavior of buyers who plan ahead, compare options across categories, and want to take advantage of promotional pricing on larger orders. This case study covers the user-facing side of the platform: account creation, catalogue browsing, category exploration, and the promotions system that incentivizes bulk purchasing.

Getting the browsing and discovery experience right was the most important front-end challenge. Users needed to move from landing on the platform to finding exactly what they wanted and understanding the deals available to them, without friction, and without the cognitive overload that comes from a poorly organized food catalogue.

Project Snapshot

Project	Capone Food — Retail Food Delivery Platform
Feature Area	User Accounts, Food Catalogue, Categories, Promotions
Role	Senior Fullstack Engineer
User Type	Retail buyers, bulk purchasers, repeat customers
Platform	Web and mobile responsive
Outcome	Clear, fast catalogue experience with promotions surfaced at the right moment

The Problem

Retail food buyers who purchase in bulk have different needs from someone ordering dinner for one. They are comparing prices across similar products, thinking about shelf life and storage, looking for

multi-unit pricing, and actively hunting for promotional deals that make a bulk order worthwhile. A catalogue experience designed for single-item impulse purchases does not serve them well.

The platform needed a catalogue that organized food by categories in a way that made sense for retail purchasing, surfaces promotional offers prominently without making the experience feel like a discount store, and handled user accounts in a way that made it easy for returning customers to pick up where they left off, with their wishlist, previous orders, and preferred categories ready.

What Was Built

User Account System

Account creation is straightforward: email and password registration with email verification, plus social login options for returning users who want to skip the form. Once registered, the account becomes the central hub for the user's activity on the platform. Their wishlist, cart, order history, and saved addresses all live under their account and persist across sessions and devices.

Returning users land on a personalized home screen that surfaces recently viewed categories, items added to their wishlist, and any active promotions on products they have purchased before. The account system tracks enough behavior to make these surfaces useful without requiring explicit preference configuration from the user.

Food Catalogue and Category Browsing

The catalogue is organized into a hierarchy of categories and subcategories that maps to how retail buyers actually think about food purchasing. Top-level categories cover broad segments: grains and staples, dairy, proteins, produce, packaged goods, beverages, and specialty items. Each top-level category expands into subcategories with further filtering options by brand, origin, dietary attributes, and price range.

Product listings show essential information at a glance: unit price, bulk pricing tiers, available stock, and any active promotions. Users do not have to click into a product to see if there is a deal on it. Pricing information is displayed directly on the listing card.

Promotional Offers System

Promotions on Capone Food are designed specifically for bulk purchasing behavior. The types of promotions available include:

- Tiered quantity discounts: buy 10 units and get 5% off, buy 50 units and get 12% off
- Category-wide flash sales: a time-limited discount applied to all items in a specific category
- First-order promotions: a discount on the first bulk order for newly registered users
- Loyalty offers: exclusive pricing for users who have placed a defined number of previous orders
- Bundle deals: a promotional price applied when specific combinations of products are purchased together

Promotions are surfaced in multiple places: on the home screen in a dedicated offers section, as badges on product listing cards, and in a dedicated promotions browse page. Users can filter the promotions page by category, discount percentage, or time remaining to find the most relevant deals quickly.

Wishlist

The wishlist lets users save products they are interested in buying without committing to a purchase. Wishlisted items show current pricing and active promotions, and notify the user when a wishlist item goes on sale or when stock is running low. Users can move items from their wishlist to their cart in bulk, which makes the wishlist an effective planning tool for users who browse and decide over multiple sessions before placing an order.

Technical Architecture

Catalogue Data Model Products are stored with a flexible attribute schema that supports the varying metadata across food categories (weight, origin, dietary flags, storage requirements). Category hierarchy is stored as a tree structure enabling efficient subtree queries for category browsing.	Promotion Engine Promotions are defined as rules with conditions (quantity thresholds, category scopes, user segments, date ranges) and effects (percentage discount, fixed reduction, free unit). The engine evaluates applicable promotions at cart and listing render time.
Session-Backed Cart and Wishlist Cart and wishlist state persists for authenticated users in the database and is loaded on login. For unauthenticated users, state is held in a session store and merged into the account on registration or login, so nothing is lost.	Search and Filtering Catalogue search uses a full-text index on product names, descriptions, and category tags. Filters are applied as composable query parameters. The search layer is decoupled from the main product database, so heavy search traffic does not affect catalogue browsing performance.
Personalization Layer The home screen personalization (recently viewed, wishlist callouts, targeted promotions) is assembled from a lightweight behavior log written on each product view, wishlist action, and purchase. The personalization query reads from this log and runs on page load with an indexed query.	Stock Availability Product listings show real-time stock levels. Stock data is cached with a short TTL and refreshed on purchase and on restocking events. Low stock and out-of-stock states are prominently shown on listing cards to help users plan their orders.

Key Challenges

Displaying Tiered Pricing Clearly

Tiered pricing, where the unit price drops based on the quantity ordered, is conceptually simple but visually complex. Showing a pricing table on every listing card was too cluttered. The solution was a compact pricing indicator on the listing card (for example, 'From \$1.80/unit on 10+') with the full pricing tier table available on the product detail page and again at cart line item level when the quantity crosses a tier threshold.

Promotion Stacking and Conflict Resolution

Some users would be eligible for multiple overlapping promotions on the same product: a category flash sale and a loyalty discount, for instance. The promotion engine applies a defined precedence order and surfaces only the best applicable promotion per line item, with a note showing what was applied. This avoids the UX confusion of competing discount messages and gives users a clear view of what they are actually paying.

Making the Catalogue Feel Fast at Scale

A food catalogue with hundreds or thousands of products across many categories needs to load quickly at every level. Lazy loading images, paginated product listings, and an aggressive caching strategy for category-level pages (which change less frequently than individual stock levels) kept browsing performance fast. Product detail pages are server-rendered for the initial load to keep first-paint times short.

Outcome

The catalogue and promotions experience gave bulk buyers a shopping environment built for how they actually purchase food. Category organization reduced the time to find the right product, tiered pricing was visible early enough in the browse flow to influence purchasing decisions, and promotions were surfaced contextually rather than requiring users to hunt for deals. Wishlist-to-cart bulk conversion became a natural part of the repeat buying workflow for returning customers.

Experience Highlights

- Category hierarchy matching retail buyer mental models, not delivery-app conventions
- Tiered bulk pricing visible at listing level, not hidden behind product detail clicks
- Wishlist with live promotion and stock alerts driving repeat engagement
- Promotion engine handling complex rule combinations with clear single-discount display