

■ QR QuickShop – Smart Hybrid Shopping System

Project Title

QR QuickShop – Smart Hybrid Shopping System

Problem Statement

Online shopping is convenient but has two major issues:

1. Delayed delivery – customers must wait for shipping.
2. Stock mismatch – products shown online may not be available in nearby stores.

On the other hand, offline shopping requires physically searching and billing products, which is time-consuming.

There is a need for a system that combines the ease of online shopping with the instant availability of offline stores.

Proposed Solution

QR QuickShop is a web-based application that allows customers to:

1. Browse products online and add them to a cart.
2. Checkout in two ways:
 - Option 1 – Online Checkout: Pay online and wait for delivery.
 - Option 2 – In-Store Checkout: Get a unique QR Code containing the cart details → visit the nearest store → scan QR at billing counter → pick up items instantly.

This ensures customers save time and stores can increase sales through faster checkouts.

Key Features

- Product Browsing: Customers can view products with details (price, stock, availability).
- Add to Cart: Simple cart system managed by frontend + backend.
- QR Code Checkout: Each cart generates a unique QR with order details.
- In-Store Mode: Customer shows QR → cashier scans → items directly appear in billing system.
- Dual Checkout: Choose between online payment or in-store pickup.

Tech Stack

Frontend: HTML, CSS, JavaScript

Backend: Python (Flask)

Database: SQLite

QR Generation: Python qrcode library

QR Scanning (store side): Web-based QR scanner or Python script

Workflow

1. Customer opens the web app → browses products.
2. Adds products to cart.
3. At checkout:
 - If Online Payment → order is placed for delivery.
 - If In-Store Pickup → system generates QR Code.
4. Customer visits nearby store → shows QR Code at billing counter.
5. Store staff scans QR → retrieves cart details → completes billing instantly.

Benefits

- ■ Saves customer time by avoiding product search & manual billing.
- Reduces delivery waiting time with in-store pickup.
- Encourages hybrid shopping (both online & offline).
- Helps stores manage real-time stock availability.

Future Scope

- Integration with UPI/Payment Gateway for real transactions.
- Real-time inventory sync with multiple stores.
- AI-based recommendation system for customers.
- Mobile app version (Android/iOS).