



# Advanced Shopping Assistant

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## The Problem

Even talking about small local shops, there are a lot of inconveniences faced by both shopkeepers and customers. Some of them are:

1. The buyer often needs to wait in a long queue before he/she can buy anything.
2. Inventory management in small shops often need to be done manually and this is often inefficient. Buyers can request for items which have run out of stock or are not available.
3. Shopkeepers tend to give candies instead of change (The change problem).
4. Often, when you are looking for an item that isn't very commonly available, you end up having to visit a lot of shops because you can't find it. If item is not found, the buyer can place a request for this particular item in any of the shops.
5. The above problems can't be solved using online ordering systems currently available because of their high delivery time(typically a day) and you don't want to wait so long when you can just go to a local store and buy things from there.

## The Solution

A shopping assistant which is meant to be used by small or not very well established shops to serve the needs of their local customers. The application's online ordering and billing system will help prevent long queues and the order can be manually collected by going to the shop. A shopkeeper can register himself on this application and use the in-built inventory management system. The fourth problem can be solved by integrating this application with the Google Maps API to find the nearest shops with the desired product.

## Features

1. Buyers can order whatever the shop has for sale, online.
2. Online billing and payment.
3. Inventory management for the shopkeeper.
4. Buyers can search for a specific item and find the nearest store where it is available.
5. Buyer can request for refill of an item that ran out of stock or addition of a new item to the shop.

## Maps API Key

AIzaSyDZqiCbne6zbtzeJfQFy000TICcYpIGUiU

## Tables

1. users
  - a. User-id (varchar 50) PRIMARY KEY
  - b. Password (varchar 120)
  - c. Name (varchar 100)
  - d. Phno (VARCHAR 12)
  - e. Home-addr (varchar 200)
2. shops
  - a. Shop-id (PRIMARY)
  - b. User-id (FOREIGN KEY)
  - c. Shop-name (varchar 150)
  - d. Address (varchar 200)
  - e. Location-x (coordinates) (varchar 50)
  - f. Location-y (coordinates) (varchar 50)
  - g. Type (varchar 50)
  - h. Phno (int 12)
3. Product table
  - a. Product-id (PRIMARY KEY)
  - b. Name (varchar 50)
  - c. MRP (int )
  - d. Tags
  - e. Pic (varchar 100)
4. Suggested prod
  - a. Name (varchar 100)
  - b. Upvotes (int)
5. Items per shop
  - a. Product-id
  - b. Qty
  - c. Price
  - d. Sold qty
6. Order(per shop)
  - a. Order-id
  - b. Timestamp
  - c. Customer

- d. Total amt
- e. Address/contact
- 7. Ordered product contents
  - a. Order-id
  - b. Prod-id
  - c. Qty

### **SQL Concepts that will be used**

#### 1. Transactions

The shopkeeper will receive an order only when a transaction has been completed fully. If there is any problem in between the customer receives a notification that the order has not been successfully placed and no money is deducted or order is placed.

#### 2. Triggers

- A trigger will be used to indicate if a certain item becomes out of stock or its quantity becomes very less.
- A trigger will be used to notify the customer when the shopkeeper marks an order as ready.

#### 3. Common SQL queries

There will be a lot of queries based on insertions, deletions and modifications in the table.

- A shopkeeper creating a new ID
- A shopkeeper registering his shop
- A shopkeeper adding item to his store

#### 4. Queries like group-by, union etc..

- There will be some advanced options in the inventory manager which will allow the shopkeeper to group items (for example, food items, groceries etc.) [There will be a way to add a tag to every item dynamically. More than one tags can be added per item]

## Pages

### Shopkeeper

- Login
- Register
- Modify inventory

### Users

- Home
- Items display page
- Cart
- Order confirm

### Order confirm page

- ★ Price (print)
- ★ Items (print)
- ★ Qty (print)
- ★ Total price (print)
- ★ Contact info (INPUT)
- ★ Confirm (BUTTON)