

README

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Roll No CS20B040

Project Name QuickBuy

Items Implemented:

- **Customer Management**
 - Search For items[Uses semantic search using Open AI's text embedding API]
 - Add, Modify, Delete Items from the cart
 - Add Bank Accounts
 - Register as a customer
 - Track Orders
 - Track Returns
 - Use Coupon Codes and Select bank account of choose while checking out
 - See updates on item delivery and make returns
 - **Seller Management**
 - Add, Modify and delete items
 - Seller dashboard
 - See list of all sales and returns made by the seller and estimate his profit
 - Accept or Reject returns from the buyers
 - Track returns made to the buyer
 - Manage his inventory i.e. list of products his is selling
 - **Advertiser Management**
 - Register as an advertiser
 - Make coupons
 - See this coupons listed for the search
 - **Warehouse Management**
 - Tracking the order shows the current warehouse where the product is and UPDATING the position reflects the order status in real time
 - Shows the status message like Processing, Delivered etc
 - **Payment Interface and banks**
 - Ability to create banks
 - Ability for individual users to add bank account in the bank of their choice and amount as per their requirement
 - Handling for low account balance using Transactions
 - **Dashboards:**
 - See stats of the sales, items sold, items returned and therefore the profits
 - See the commission made by the site
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Methodology

First the requirements given are classified into categories which are closely related and then using diagrams and rough architecture of the site has been draw and site has been built while making the changes on the go.

Requirements:

Name Siddhartha G

Roll No CS20B040

Course

Database Management Systems

Instructor Dr. Kalidas

Project E-commerce web application

Features Seller and customer management, payment and bank interfaces, warehouse and inventory management, advertising management

Requirements Functional

Given Requirements

Dear Students,

Towards DBMS term project you need to design and develop an e-commerce web application with the following features.

Entire work must be original. You should have written your own code and know things very well. I may ask to modify here and there and you should be able to fix it immediately.

- **01) Seller should add, modify or delete item types and quantity
- 02) Each customer search for items
- 03) Each customer add items to his/her cart
- 04) Each customer modifies his/her cart
- 05) Dummy interface to pay for items
- 06) Dummy bank with customer accounts and amount that can be modified
- 07) Exception handling when amount balance is less
- 08) Register seller
- 09) Register customer
- 10) One customer may have account in 2 or 3 banks
- 11) Payment to show bank selection interface
- 12) Item delivery tracking
- 13) Add or modify multiple warehouses
- 14) For each selected item, randomly choose warehouse path
- 15) Item arrives at a warehouse
- 16) Item dispatches from a warehouse
- 17) Upon final arrival, OTP code should be entered by the customer in the web interface (customer login) to receive item
- 18) Item return workflow to be provided
- 19) Randomly choose warehouse path for returning items
- 20) Returned item arrives at the seller
- 21) Seller dashboard to indicate items sold, items returned and track each item
- 22) Customer to track returned item
- 23) If seller accepts return, amount should be credited back to the customer
- 24) If seller rejects return, customer can file grievance in the platform - specific details and history should be attached automatically
- 25) Advertisement interface - register advertisers
- 26) Add or modify or delete discount coupons by the advertisers
- 27) Discounted amount to be withdrawn from the bank of the advertiser and credited to the seller
- 28) Platform should have a bank account and enjoy commission on each transaction
- 29) Each seller to have an inventory of different types of items of different quantities that change dynamically as purchase happens
- 30) Show advertisers in the customer search interface for the items - show relevant items
- 31) Identify and use ER diagrams
- 32) Identify and use relational schema and normalization
- 33) Provide more exciting and competitively impressive features over your fellow students. You are free to compete!
- 34) Provide test cases and thoroughly test your platform**

You are expected to provide more clarity, quality and intensity in your work rather than just showing some features without good implementation. Merely trying a feature is not sufficient, it should be working and comparatively the best against top quality implementation in your class.

With regards

Refined Requirements

Functional Requirements

Feature	Requirement	Description
Seller Management	[1, 8, 21, 23, 24, 28]	
Add, Modify, Delete item types and quantities	1	Seller can add new item types or modify/delete existing ones, and also specify the quantity of each item type available.
Seller Dashboard	21, 29	Shows the items sold, returned and track each item
Register Seller	8	Sellers can register on the platform and create a profile
Return Approval/Rejection	23, 24	Seller should be able to approve or reject the return of an item. If rejected then reason should be provided for it
Customer Management	[2, 3, 4, 9, 10, 12, 18, 22]	
Search items	2	Customer can search for items.
Add, Modify, Delete items from cart	3, 4	Customers can add items to the card, modify their cart and remove items from the cart.
Register Customer	9	Customers can register on the site
Item Delivery tracking	12	Customer can track the status of the order
Item Return Workflow	18, 22	Customer can initiate a return and track the status of their return
Bank Account Management	10	Customers can have accounts in 2 or 3 banks
Payment and Bank Interface	[5, 6, 7, 11, 28]	
Interface for payments	5, 11	Provides an interface to make payments for the items
Should include a feature to select the bank to make payments		
Banks	6	Customers can register in one or more banks
Exception Handling for low account balance	7	System should handle exceptions when the customer's account balance is less than the total amount due

Feature	Requirement	Description
Commissions	28	Platform has a bank account to which the commission for each transaction is deposited
Warehouse and Inventory Management	[13, 14, 15, 16, 17, 19, 20]	
Add, Modify, Remove warehouses	13	Sellers should be able to add, modify, remove warehouses
Random Warehouse path[from warehouse to dest]	14	System should randomly choose a random path for each selected item
Item Arrival and Dispatch	15, 16	System should track the arrival from other warehouses and dispatch of items from warehouse
Item Arrival[to customer]	17	Upon arrival at the location, Customer should enter an OTP code to validate the arrival
Random Warehouse path[from dest to warehouse]	19	System should generate random return path
Item Return Arrival[to seller]	20	System should give seller ability to perform action on the arrived items
Advertising Management	[25, 26, 27, 30]	
Register Advertiser	25	Advertiser can register on the platform
Add, Modify, Delete discount coupons	26, 27	Advertisers can add, modify, delete discount coupons
Relevant advertisers	30	Platform should show relevant advertisers from the customer search

Note:

- The code is well documented
- All the **34 requirements in the classroom post** and the requirements presented in the class have been implemented as per understanding.
- There can be some parts not covered in the demo
- Project uses NextJs as the web development stack
- Images are the displayed in the demo are subject to respected owners