

DBMS PROJECT-GRP 37

Online Retail store

ShoppingKaro!!

Submitted by-

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Project Scope(Technical & functional requirements)->

Problem Statement/Project Scope-Through this application we are aiming to design an online retail store system where the customers can view and purchase products sitting in their homes!!Due to the heavy and hectic schedule,youth nowadays don't have the time to buy products manually,users can spend a considerable amount of time to select products after considerable search. "Shoppingkaro!!" application will use a relational database such as MySQL or PostgreSQL to store and manage customer, product, and transaction data.The store would sell a unique variety of products ranging from different types,all the staffs should follow a certain level of hierarchy,with proper responsibilities assigned to manager,heads etc .In the actual world, it is necessary to address various payment options.Last but not least, a complete proof system is required so that sufficient data can populate all the tables and queries can be tested effectively.

Stakeholders-> The stakeholders required for application would be primarily->

1)Customers

2)Employees

3)Database admin

4)Suppliers

5)Vendors

Functionalities and data:

Functional requirements:

In the retail store the vendors and stores are important stakeholders who store the data and manage all systems in an offline manner.

- There is a database which stores the information or attributes of the product like the product primary attribute: product id (unique), product name, product type, price in category and subcategory manner so we can easily distinguish among them i.e. which product belongs to which category.
- In similar fashion we also built a database which stores the customer details(attributes) like user id, phone number, user name, user address, city, pin and state. At every order a unique user id is generated and otp is sent to their registered mobile number. The user has mobility to change their personal details (user attributes) and this will be updated on our database at that time.
- By entering their email address and password, consumers can log in to the store and access their account information.
- We will provide customers vouchers and coupons on applying some constraints like for the first time or new users get coupons and which they can redeem on their next order. giving some discounts to the regular customers according to special coupons. The special coupons are platinum, gold and silver coupons and discounts on it are 15%, 10% and 10% respectively; these can be given to our regular customers only.
- There are also some extra discounts on heavy shopping which will be decided by some constraints like a fixed threshold price. There will be some daily and festive offers. There will be a cart system in which the customers orders are stored.
- One assumption we have kept in the cart is that they can save their order and can buy in future and that allows a cart flow system. Another assumption is for login. Category head and branch managers can add new employees to work under them, but we believe that physical verification is necessary, along with deliverables. So we don't activate the employee login at a later time.
- Stores and vendors will keep the data of daily product sales, return or faulty product, Total sales etc.
- There is a transaction system both online and cash on delivery where customers can pay. Every transaction has some attributes like primary attribute us transaction id, OTP generated for security purpose, account details, delivery charges based on distance these all are stored in the database. There is a checkout process.

Some other functionalities requirements:

- Customers details orders, customer order history, wish lists, rewards, gifts cards, notifications, top offers.
- Order date and time, delivery date and time.
- The database will be used to store customer information and purchase history, product information and inventory levels, and transaction data.
- The database will support reporting and analytics features.
- The database will be protected by a password and will be accessed by only authorized users such as the database administrator.
- Regular backups of the database will be done to prevent data loss and ensure data availability.
- Feedback data is stored by statement, remarks, giving rating based on stars, timely delivery etc.
- Products are adjusted based on availability in warehouses near the pin address of the customer.

Technical Requirements->Technical requirements includes the technical specifications that would be required for designing our database. Using the "grant command", we can provide privacy so that the user can access only specific information or can perform only specified roles.

- For maintaining the atomicity in the system, if the transaction is processed by the customer but due to some technical issues like internet connection etc the transaction is stuck the reverse transaction is also available the transaction is going back to the customer account.
- Schemas for each table
- Relationship between them.
- Backend-Mysql, flask, python
- database design-> using mysql
- Performance, reliability, availability-Customer cannot access financial details of store and vendors, delivery boy cannot access customer details like account number, bank details.
- Frontend-Html, css, react js, python, django, node js.
- Having simple navigation pages so that the customer can easily identify and organize their buyer's product.