# QuickCart : An Online Retail Store

Aarzoo(2022008), Shobhit Raj(2022482), Sidhartha Garg(2022499), Vanshika Pal (2022560)

January 22, 2024

## 1 Project Scope

Groceries stand as an indispensable part of every household, and the universal desire for efficiency in the routine task of grocery shopping resonates across the globe. **QuickCart**, an innovative online marketplace, redefines the daily shopping experience, providing a **Database Management System (DBMS)** to streamline processes. It emerges as a dependable and efficient solution, seamlessly connecting customers, suppliers, administrators and delivery agents.

- **Customers** begin their journey by securely logging into the QuickCart platform, creating an account linked to a unique email address. Navigating through the customer-friendly interface, they explore a comprehensive product catalog, using the search bar to find desired items. The process continues as they effortlessly add chosen products to their shopping cart, ensuring a smooth and user-centric experience. Upon successful order placement, the system provides real-time updates on delivery status, sending customers prompt messages. Customers can then provide feedback on delivered products and delivery agents, enhancing the system's responsiveness.
- **Admin managers**, responsible for inventory management, access the system securely. They view and update inventory, analyze order trends, and track revenue statistics for effective decision-making. Admin managers also engage with customer feedback, ensuring a responsive approach to customer needs and refining the overall shopping experience. Other admin functionalities include the ability of list and unlist products, adding, editing and removing categories.
- Simultaneously, **delivery agents** log in as partners, and set their availability status to receive delivery offers. They can view available delivery tasks within a radius set by them (in km) with destination, price, commission etc. Once a partner chooses a task to fulfill, they can view the order details and contact information of the customer. System updates the order status in real-time to ensure partner's road safety. Partners can also contact customer for directions. After the order has been delivered, the partner updates the status of the order, post which they can view the rating received, their earnings, tips (if any) promoting transparency and accountability.

  The primary objective of this project is directed towards the development of an effective Database Management System catering to the needs of the administrators, customers and delivery agents. In addition to functional requirements, non-functional aspects such as scalability and user accessibility would also play an integral part in QuickCart's success.

## 2 Technical Requirements

- MySQL
- Python
- HTML
- CSS
- Javascript
- ReactJS
- Flask

# 3 Detailed Overview of the Functionality

## 3.1 Customer Management

- **Signup**: - Creating a new account with constrained credentials (ensuring a unique email address and phone number which will be linked to only one account, alphanumeric password with atleast one special character).
- **Login**: - User authentication requiring an exact match of credentials lodged during signup.
- **Product Categories**: - A customer-friendly, easy-to-navigate comprehensive product catalogue classified in hierarchical categories.
- **Search Bar**: - An efficient feature that customers can use to search, find and choose the desired products and add them to their shopping cart.
- **Shopping Cart**: - Allows users to hold product information of the chosen products the user ought to buy, and apply promo codes.
- **Wallet**: - A virtual wallet for an easier, faster, smoother payment experience with transaction history.
- **Tracking**: - After payment has been made the order is placed, and the user receives live delivery status and contact info of the delivery agent.
- **Order history**: - A place for Customers to view a detailed history of their past orders, and add or view corresponding ratings and reviews.
- **Reward Points**: - A reward points system, allowing customers to accumulate points with each purchase enhancing customer loyalty and repeat business.
- **Sign Out**: Allows users to control where they're logged in.

## 3.2 Admin Management (Restricting to 4 admin managers)

- **Login**: - Admin authentication requiring an exact match of credentials lodged during signup.
- **Manage inventory**: - Allows the admin to view and update the inventory for the supply of products. For example : List and unlist products, adding, editing and removing categories.
- **Order Analysis**: - Get the statistics of the order trends of their region for better analysis of the product management.
- **Revenue statistics**: - View the overall revenue of their store
- **Customer feedback**: - View and analyze the feedback of the customers for further improvement and customer satisfaction.

## 3.3 Delivery Partner Management

- **Signup**: - Creating a new account with constrained credentials (ensuring a unique email address and phone number which will be linked to only one account, alphanumeric password with atleast one special character).
- **Login**: - User authentication requiring an exact match of credentials lodged during signup.
- **Availability Status**: - Set their availability status and restricting to the fact that a delivery agent cannot be assigned to more than one order at a time.
- **Delivery Tasks**: - Receive information regarding the order, like its destination, price, commission, etc.
- **Order acceptance**: - Decide on accepting/rejecting the order based on their availability.
- **Order Status**: - Update the status of the order they delivered and get the feedback provided on the delivery (if any)
- **Earnings**: - View their respective earnings along with tips received.

# 4 Contribution

With combined discussions and meets, we all contributed equally in completing the deadline 1.