**A Project Report**

**on**

**Ecommerce plateform**

**Submitted In Partial Fulfillment of the Requirements**

**for**

**the Award of Degree**

**of**

**Bachelor of Computer Application**

***by***

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**DEPARTMENT OF BACHELOR OF COMPUTER APPLICATION**

**ANNEX COLLEGE & MANAGEMENT STUDIES**

BIDHANNAGAR, KOLKATA, WEST BENGAL 700064

**MAY 2025**

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**DEPARTMENT OF Bachelor of Computer Application**

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This is to certify that the report entitled **“Ecommerce Platefor ”** is a record of work carried out by “**Atikul Islam”** under my guidance and supervision for the award of Degree of Bachelor of Computer Application in the faculty of …………. Bachelor of Computer Application of “**Annex college affiliate”**

To the best of my knowledge and belief the thesis

1. embodies the work of the candidate.
2. has duly been completed.
3. fulfills the requirements of ordinance relating to the B. Tech. Degree of the University and
4. is up to the standard both in respect of contents and language for being referred to the examiners.

**Signature of the supervisor**

**(Wxyz Abcd)**

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**Annex College , W.B**

**Countersigned by**

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The report entitled **“Abcde Fghij Klmnop”** submitted by Pqrst Uvwxyis hereby recommended for the award of the degree of ***Bachelor of Computer Application*** in the faculty of ………….. Engineeringof **Forwarded to BTU , India**.

**Internal Examiner External Examiner**

**Date: Date:**

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Introduction

In recent years, the demand for online grocery delivery platforms has significantly increased due to the evolving digital lifestyle, convenience expectations, and the impact of global events such as the COVID-19 pandemic. Grocify is a modern web-based grocery delivery platform designed to streamline the process of ordering daily essentials. It focuses on fast delivery, user-friendly interfaces, secure authentication, personalized cart systems, and real-time billing.

The goal of Grocify is to connect local vendors with end customers through a seamless online experience while ensuring timely delivery and maintaining product quality. The platform is fully responsive, catering to users across mobile, tablet, and desktop devices.

Review of Literature

1.1 Evolution of E-Grocery Platforms

* Early online grocery platforms such as Webvan and Peapod introduced the concept in the early 2000s.
* With the rise of mobile apps and better logistics, platforms like Amazon Fresh, Big Basket, and Swiggy Instamart have reshaped consumer habits.

1.2 Technology Stack in Grocery Platforms

* Frontend: HTML5, CSS3, JavaScript, React or Vue.js
* Backend: Node.js, Express, Django
* Database: MongoDB, MySQL
* Payment: Razorpay, Stripe, PayPal integration
* Authentication: JWT, OAuth, Firebase

1.3 Challenges

* Real-time inventory management
* Delivery logistics and regional limitations
* User retention and app performance optimization

Case Study: Grocify Implementation

3.1 Problem Statement

People struggle with daily grocery shopping due to time constraints and lack of organized platforms for local delivery. Grocify addresses this by offering a simple and efficient digital solution.

3.2 Features Implemented

* User Authentication – Login and sign-up functionality with secure credential handling.
* Dynamic Cart System – Users can add/remove items, with real-time cart updates.
* Checkout Page – Displays item names, total amount, discounts, and allows order placement.
* Billing System – After order placement, the system generates a bill with product names, quantity, prices, total, delivery address, and user details.
* Search Functionality – Allows searching items with real-time filtering.
* Responsive Design – Optimized for all screen sizes.
* Admin Panel (Future Scope) – For inventory and order tracking.

3.3 Tools & Technologies

* HTML, CSS, JavaScript
* Bootstrap for UI components
* Firebase or LocalStorage for authentication and data handling (demo version)
* VS Code, GitHub for version control

Results & Discussion

4.1 Outcomes

* Successfully deployed a working prototype where users can browse products, add them to cart, and complete checkout.
* Smooth UI/UX with real-time updates and responsiveness.
* Authentication system works as expected with conditional rendering (user icon hidden after login, logout button visible).

4.2 User Feedback

* Positive: Easy navigation, fast loading, clear billing process
* Suggestions: Add multiple payment options, offer product filtering by brand/price, track orders live

4.3 Challenges Faced

* Making cart data persist across multiple pages
* Handling conditional rendering based on login status
* Integrating form validation for checkout

Conclusion

The Grocify platform successfully demonstrates the development of a modern grocery web application aimed at improving the daily lives of users. It combines design, logic, and interactivity to offer a reliable solution for online grocery shopping. By incorporating features like real-time cart updates, secure login, and bill generation, Grocify brings both functionality and convenience to the table.

Scope for Further Work

* Live Order Tracking – Using Gps Apis And Maps For Delivery Tracking.
* Vendor Panel – Allow Sellers To List Products, Update Stock, And Manage Prices.
* Payment Gateway Integration – Add Real-Time Secure Payments Using Razorpay Or Stripe.
* Push Notifications – Inform Users About Offers, Order Status, And Deliveries.
* Mobile App Development – Build A React Native Or Flutter Version Of Grocify For Android/Ios.
* Ai-Based Recommendations – Show Product Suggestions Based On User Purchase Behavior.