

Pushpa: An Online Flower Market Platform for Flower Ordering and Selling Management

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Abstract: Nowadays, the Internet is widely used, and online shopping has become very common. Many people prefer buying products from e-commerce websites because it saves time and makes the process easier. However, in traditional flower markets, customers usually have to visit the shop in person to buy flowers, which can be difficult and time-consuming. This limitation creates a need for a more efficient and user-friendly solution.

To make this process easier, an online flower market system has been developed using J2EE architecture. This web-based system helps customers view the flowers available in the shop and place their orders through the website. Customers can also manage their orders online, track delivery status, and make secure online payments through integrated payment gateways.

The system also includes features for florists and administrators. Florists can add new flower products, update prices, upload images, and manage their listings efficiently. The administrator can supervise and control the overall activities of the system, manage users, monitor transactions, and ensure smooth functioning of the platform. The system also maintains a database to store customer details, order history, and product information for better management and analysis.

After studying the needs of users, the important features required for selling flowers online were included in the system, such as search functionality, category-wise display, user authentication, and order confirmation notifications. Security measures are also implemented to protect user data and ensure safe transactions.

The system was tested several times to check its performance and reliability. The results showed that the system works smoothly and efficiently under different conditions. This platform helps customers buy flowers easily, reduces manual effort, and also provides better business opportunities for florists through online sales. In the future, the system can be enhanced by adding mobile application support, AI-based recommendations, and faster delivery tracking features to further improve user experience

Keywords: Online flower Market, E-commerce Website, flower Ordering System, Application, Digital Marketing

I. INTRODUCTION

Flowers are an important part of Indian culture and daily life. They are used in many activities such as religious, rituals, festivals, weddings, and other special events. Many people buy fresh flowers regularly from nearby flower markets. In the traditional system, customers need to visit the market personally to select and purchase flowers. Sometimes this can take more time and may not always be convenient for everyone.

Today, the use of the Internet and digital technology has increased in almost every field. Many businesses are moving their services online so that customers can easily access them. Online shopping platforms allow people to explore products, compare options, and place orders from anywhere without the need to visit physical shops.



Keeping this in mind, Pushpa-The Online Flower Market has been developed as a web-based platform that makes the process of buying and selling flowers easier. Through this system, customers can view different types of flowers, check their details, and place orders online. Flower products and update information about their items, while the administrator can supervise and manage the overall system. The system also maintains a database to store customer details, order history, and product information for better management and analysis.

By bringing customers, florists, and administrators together on one platform, this system aims to provide a simple and purchase flowers.

Need Of Project

Flowers are an important part of Indian culture and are used in festivals, weddings, religious ceremonies, and many other special occasions. Most people usually buy flowers from nearby flower markets. In the traditional system, customers have to visit the market to check the available flowers and then purchase them. This process can sometimes take longer through a digital platform and may not always be convenient.

Nowadays, many businesses are moving towards online platforms to make their services easier and more accessible. However, many flower sellers still depend only on local markets to sell their products. Because of this, their business is limited to a small number of customers.

So, there is a need to develop an online system that can help customers and florists connect through a digital platform. With the help of an online flower market, customers can view different types of flowers and place orders easily from their homes.

This system can also help florists promote their flower products online and reach more customers. In this way, the online flower market system makes the process of buying and selling flowers easier and more convenient for both customers and florists.

Problem Definition

Flowers are commonly used in daily life. People use them in festivals, religious functions, weddings, and decoration. Most people buy flowers from nearby local markets.

However, the traditional methods of buying flowers have some problems. Customers need to visit the market to buy flowers.

This can take time and may not always be convenient. It is also difficult for customers to check the price, availability, and variety of flowers in different shops.

Flower sellers also face problems. Many small vendors depend only on customers who visit the market. Because of this, they cannot reach more customers. Managing products and sales also becomes difficult.

Therefore, there is a need for an online system for buying and selling flowers. An online platform can help customers view different flowers, check details, and place orders from anywhere. At the same time, it can help florists show their products online and reach more customers. This system can make the process of buying flowers easier and more efficient.

II. LITERATURE REVIEW

[1] Ranjit Kumar Singh and R. K. Misra Singh, Floriculture and its role in agriculture. This study explains the importance of Floriculture in the agriculture sector. Flowers are widely used in festivals, religious events, weddings, and decoration. Because of these users, the demand for Flowers has increased, making floriculture an important commercial activity in agriculture. [2] B. K. Dadlani Floriculture in India: Growth and opportunities. This study discusses the development of the floriculture industry in India. Flowers are commonly used in celebrations and cultural programs. Due to the growing demand, the flower market is expanding, and better marketing systems are required.



[3] N. K. Dadlani Marketing of Floriculture products in India. This paper focuses on the marketing practices used in the floriculture sector. Traditional selling systems have several Limitations such as limited customer access and unorganized distribution. Improved marketing strategies can help increase flower sales.

[4] S. K. Bhattacharjee Advances in ornamental horticulture. This research explains the production and management of ornamental plants and flowers. It highlights that better marketing channels and distribution systems can support the growth of the floriculture industry. [5] A. K. Singh, Floriculture and ornamental plants. This study explains that floriculture has become an important part of modern agriculture. Proper promotion and marketing can help flower products reach a larger number of customers.

[6] R. L. Mishra Floriculture production and management. This research discusses the commercial importance of flower production. Organized marketing systems and improved distribution can help flower sellers expand their business and increase sales.

Methodology to Solve the Problem

The proposed online flower-selling and ordering System (Pushpa Market) is developed using a three-tier architecture. This architecture helps in organizing the system properly and also makes it easier to maintain and expand in the future. By dividing the system into separate layers, each part of the system can handle its own tasks while still working together with the other layers.

The architecture of the system mainly consists of three layers: Presentation Layer, Application Layer, and Database Layer.

A. Presentation Layer

The presentation layer represents the user interface of the system. It is developed using modern web technologies such as JavaScript, TypeScript, and the React framework. This layer allows users to interact with the website and perform different operations.

Customers can create an account, log in to the system, browse different types of flowers, view product details, add items to the cart, and place orders through the website. They can also check their order details and manage their profiles.

Florists can use the system interface to add new flower products, update product information, manage prices, and view orders placed by customers. The administrator can monitor the system, manage users, and control product listings.

B. Application Layer

The application layer is responsible for handling the main functionality and processing of the system. It receives the requests from the required operations before sending or retrieving data from the database.

This layer is implemented using React, JavaScript, and TypeScript, and it communicates with backend services provided through Supabase.

Some of the key functions handled by this layer include:

Managing user registration and login authentication.

Handling product management, such as adding, updating, or removing flower products.

Managing the shopping cart and processing customer orders.

Allowing users to view order details and track their order status.

Providing administrative features for managing users, products, and system activities.

This layer acts as the connection between the user interface and the database, ensuring that all operations are processed correctly.



C. Database Layer

The database layer is responsible for storing and managing all the data used in the system. In this project, Supabase is used as the backend service which provides a PostgreSQL database for storing application data securely.

The database stores important information such as user details, flower product information, and order records. All the data is organized in structured tables so that it can be easily accessed and updated whenever required.

The system currently supports Cash on Delivery (COD) as the payment method. Therefore, the database mainly stores order details and payment status instead of online payment records.

Supabase also provides secure APIs and authentication services that allow the application layer to communicate safely with the database. This ensures that the system stores and retrieves data efficiently.

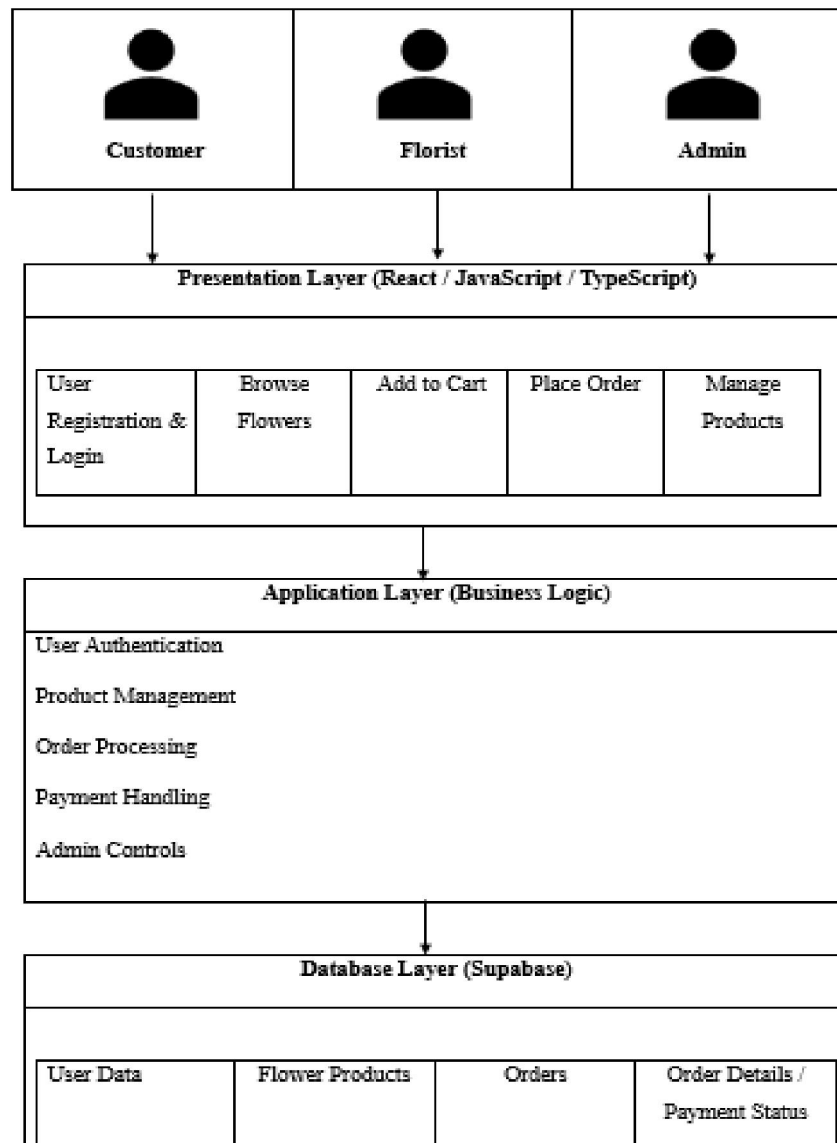


Figure. 1 System Architecture for Online Flower Selling Portal



Objectives of Proposed Work

- To develop a website where customers can view different flowers and order them online.
- To make flower buying easier so that customers do not always need to visit the market.
- To provide florists with a platform where they can show their flower products and update the details when needed.
- To save time for customers by allowing them to check flower varieties and place orders from home.
- To give the admin control to manage users, products, and orders in the system.
- To create a simple online platform that connects customers and flower sellers.

Details of Design, Working, and Process

Working Mechanism

The flower-selling management system operates through a simple workflow where customers, florists, and the administrator interact with the platform to perform different activities related to ordering flowers and managing shops.

1. User Registration and Login Process

Before using the system, a user must create an account by providing basic information such as name, mobile number, and password. After the registration is completed, the user can log in using the same mobile number and password.

Florists are also allowed to register on the platform. After logging in, they can manage their shop information and update the flower products available in their store.

2. Flower Shop and Product Viewing

After logging in to the system, customers can browse different flower shops available on the website. Each shop displays the flowers offered by the florist.

The customer can view the flower name, price, and description before selecting a product. This helps them choose flowers according to their preference.

3. Order Placement Process

Customers can select flowers and place orders through the website. While placing the order, the system shows the service options provided by the shop.

Some shops provide only pickup service, some offer delivery, and a few provide both options. The customer can select the available option based on the services provided by that particular shop.

4. Cash on Delivery Payment Process

The system supports Cash on Delivery customer pays the amount when the flowers are received.

Order details are saved in the system so that they can be accessed later if needed.

5. Admin Management Process

The administrator manages the overall functioning of the system. The admin can monitor customers, florists, and flower shop details available on the platform. This helps maintain proper control over the data and ensures that the system runs smoothly.

6. Order Management Process

All order information is stored in the database. Each order contains customer details, selected flower products, shop information, and the selected pickup or delivery option.

Florists can view the orders related to their shop and prepare the flowers accordingly.

7. Shop Management Process

Florists can manage their shop through the system. They can add new flowers, update product details, or remove products when they are not available. This helps keep the shop information updated so that customers can view the latest products.



Order Management Process

The system keeps a record of every order placed by customers. Each order includes customer details, flower products, quantity and delivery and pickup information.

Florists can check these orders and prepare them for delivery. The administrator can also monitor all order activities and maintain proper records for future reference.

Product Management Process

Florists or administrators can add new flower products by entering details such as flower name, price, description, and images. They can also update or delete products whenever necessary.

This ensures that the product list remains updated for customers visiting the platform.

Data Storage and Security

All important information, such as user details, product data, and order records, is stored in the Supabase database. Access to the data is restricted so that only authorized users can modify or view certain information. Basic authentication and database security help in protecting the stored data.

III. RESULTS AND APPLICATIONS

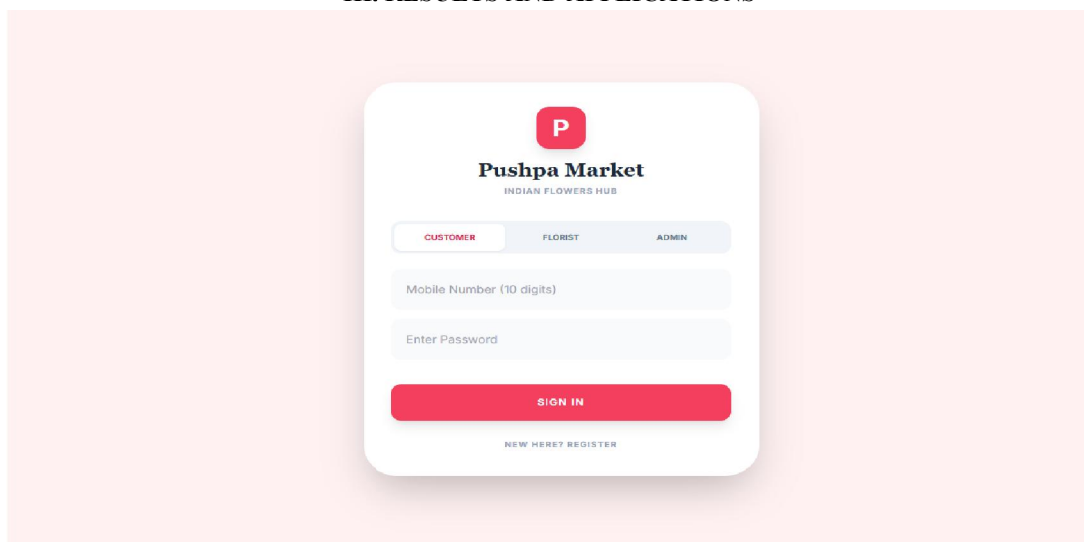


Figure 2: Login or Registration Interface

The figure shows the login and registration page of Pushpa Market. Users select their role, enter their mobile number, and password to log in. New users can register by filling in their details. The system checks the data and allows access if correct.



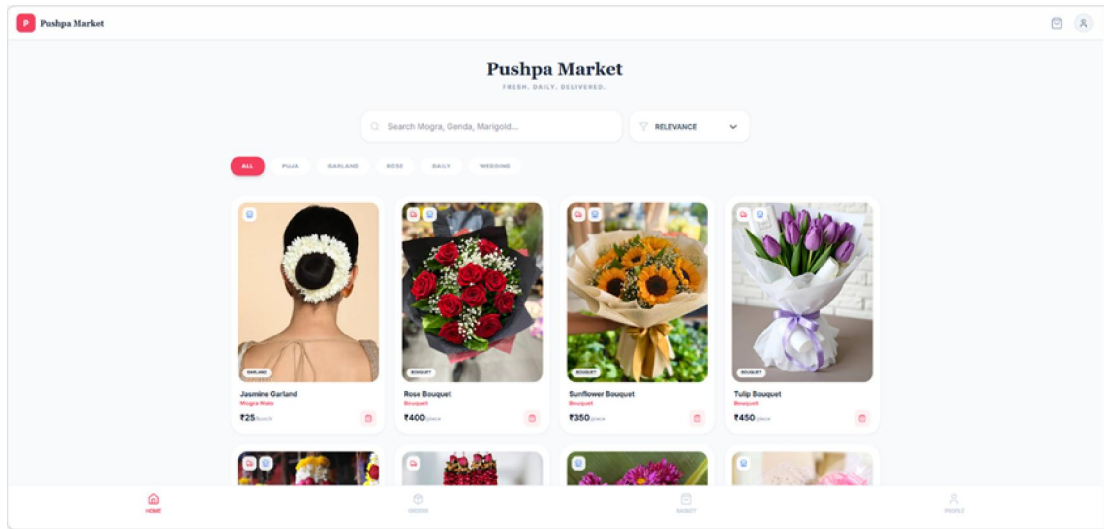


Figure 3: User Dashboard

The figure shows the user dashboard where different flowers and bouquets are displayed. Users can search, filter, and view products with images and prices, and select items to order.

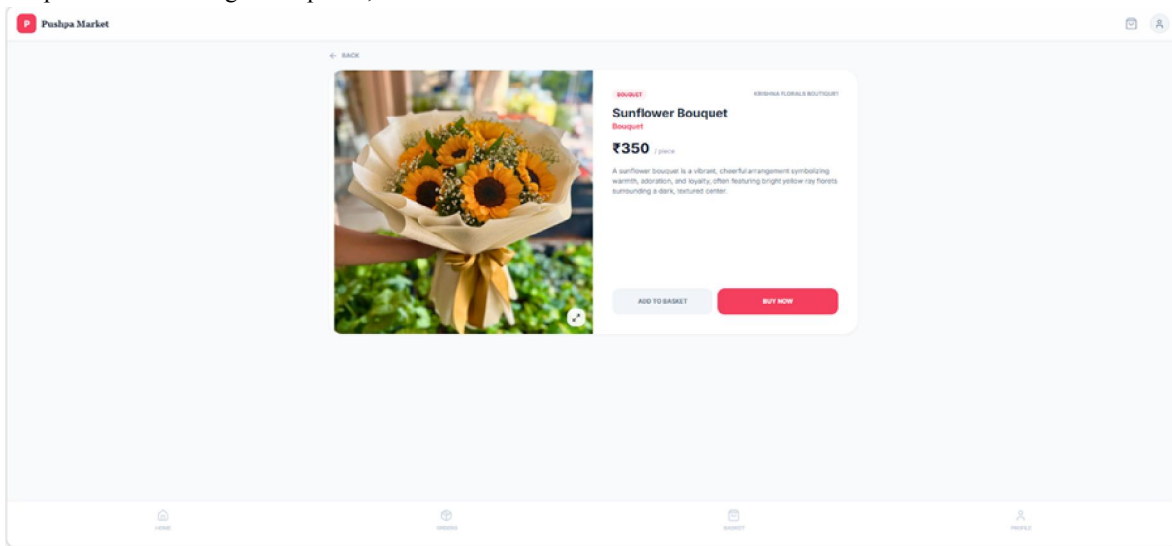


Figure 4: Flower Details

The figure shows the detailed view of a selected product. It displays the flower image, name, price, and description. Users can add the item to the basket or directly buy it.



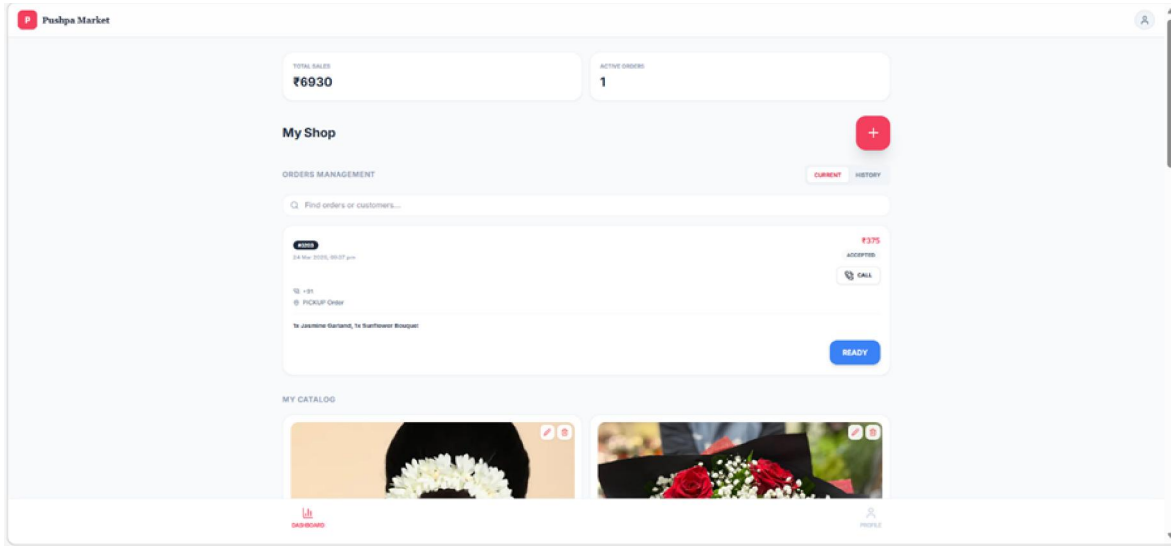


Figure 5: Florist Dashboard

The figure shows the florist dashboard where shop details especially total Available Flowers and active orders, are displayed. Florists can manage orders and view their product catalog.

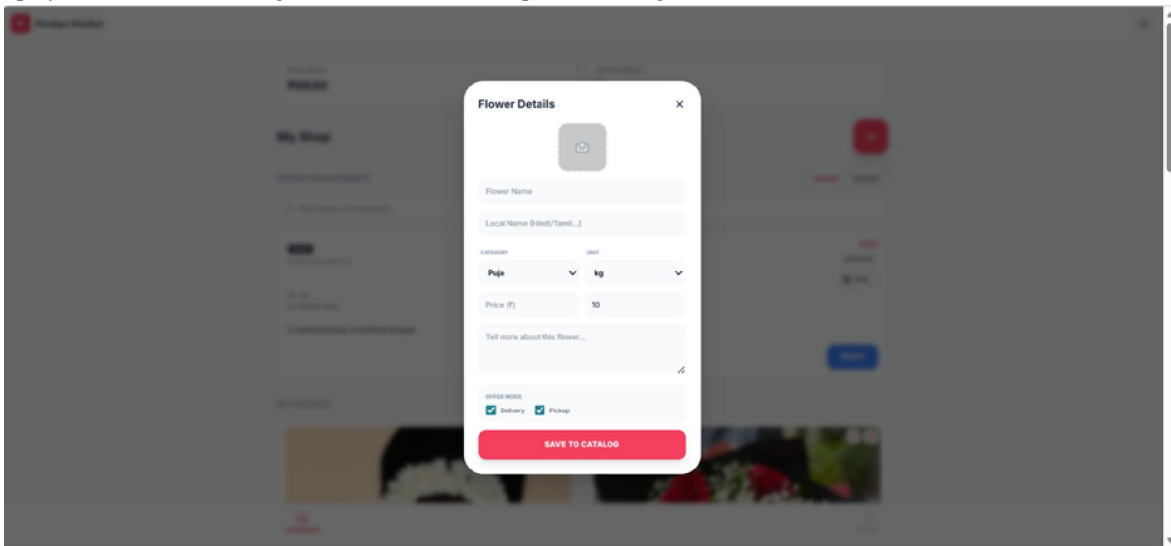


Figure 6: Add/Edit Flower Details

The figure shows a form used by florists to add or edit flower details. It includes fields like flower name, category, price, and delivery options. After filling the details, the florist can save it to the catalog.



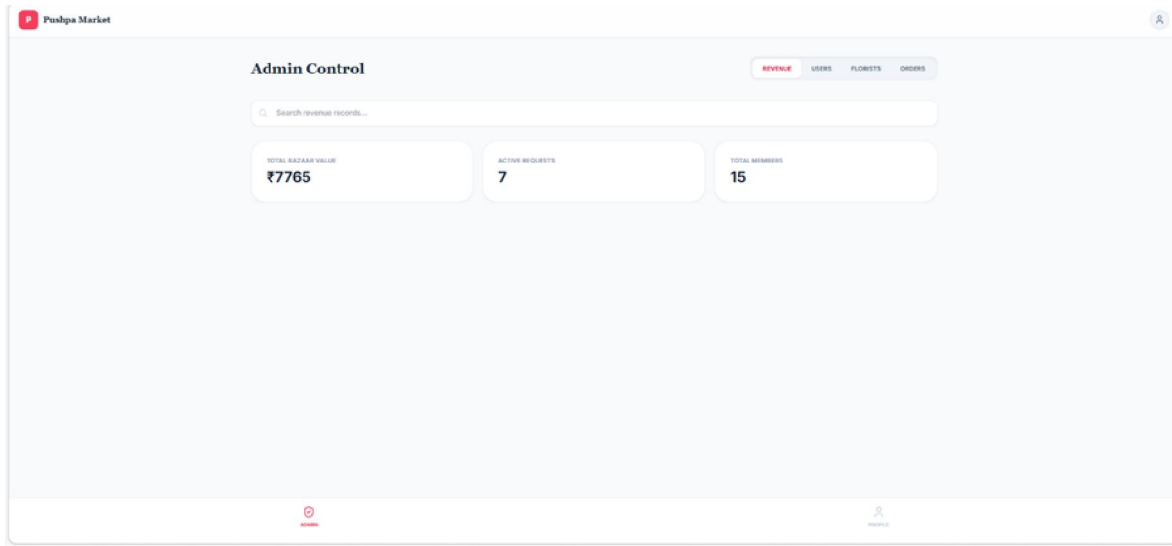


Figure 7: Admin Dashboard

The figure shows the admin dashboard of Pushpa Market. It provides an overview of the system, including total users, orders, and sales. The admin can monitor activities, manage users and florists, and control overall system operations from one Place.

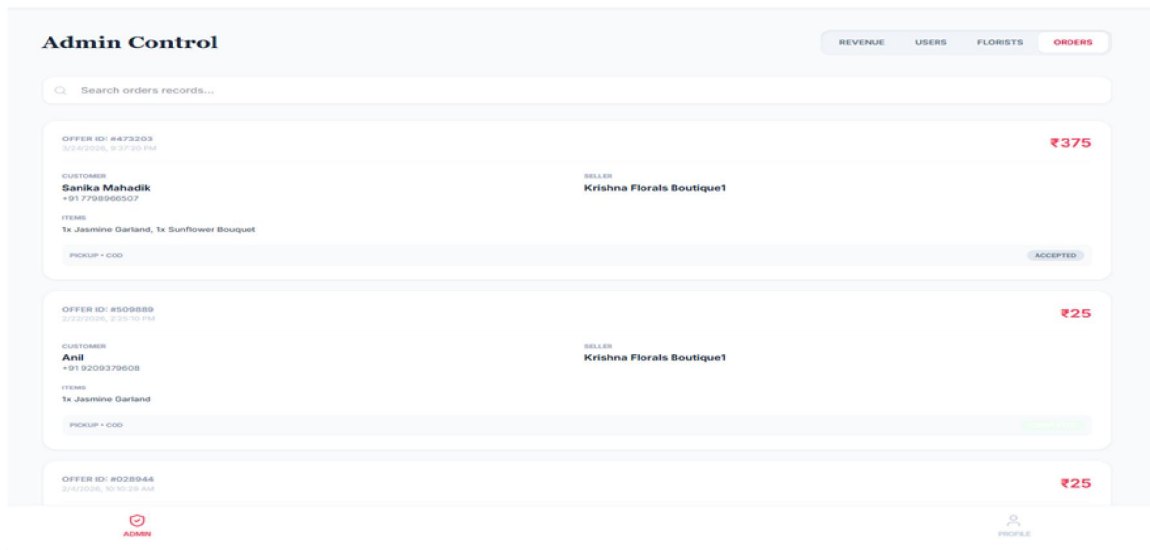


Figure 8: Admin Orders Dashboard

The figure shows the orders section in the admin dashboard of Pushpa Market. It displays all customer orders with details like order ID, items, price, and status.

IV. CONCLUSION

The Flower Selling Management System is created to make flower buying easy. In a normal way, people go to the market to buy flowers. It takes time, and sometimes it is not possible for everyone.



With this system, customers can check flowers online. They can see the price, details, and place an order from anywhere. It becomes simple and fast. Florists can also manage their shop and update products when needed. This helps them to reach more people.

The system also keeps a record of orders. Cash on delivery option is also there, so it is easy for users to trust the system.

Overall, this system is better than the traditional method. It saves time and makes things simple. It also supports small flower sellers to grow their business.

ACKNOWLEDGMENT

We would like to sincerely thank our guide, Mr. Nilesh V. Patil, for his constant support, guidance, and encouragement throughout this project. His valuable suggestions and helpful feedback made it easier for us to understand the concepts and complete our work successfully. We are also grateful to the Computer Engineering Department of Rajarambapu Institute of Technology for providing us with the required facilities and a good environment to work on this project. We would like to thank all the teachers and staff members for their support and cooperation.

Lastly, we thank our family and friends for always encouraging us and standing by us during the completion of this project. Their support and motivation helped us stay focused and confident.

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