

MITTI THE MOBILE APPLICATION

Jaya Karuna B¹, Arbaaz Ahmad², Ashhar Ahmad³, Abu Shahma⁴, Amarveer Singh⁵

¹ Assistant professor, CSE, AMCEC, Karnataka, India

² Student, CSE, AMCEC, Karnataka, India

³ Student, CSE, AMCEC, Karnataka, India

⁴ Student, CSE, AMCEC, Karnataka, India

⁵ Student, CSE, AMCEC, Karnataka, India

ABSTRACT

The “Mitti” mobile application is designed to enhance the pottery shopping experience by providing customers with a convenient platform to purchase pottery products and request custom orders. The app aims to increase sales for the business by providing an efficient way for customers to shop and interact with the company. The app features an intuitive interface that enables customers to browse through a variety of pottery products, view detailed product information, and make secure purchases using various methods. Customers can also use the app to communicate with the company by requesting custom orders or reporting any issues they may have encountered.

The app is expected to streamline the pottery shopping process and improve customer satisfaction by providing a user-friendly and responsive platform for customers to engage with the business. The report outlines the project's objectives, design, and implementation, including the application's features and functionality.

1. INTRODUCTION

The pottery industry has been an integral part of human civilization for thousands of years and has continued to evolve and grow with time. In recent years, advancements in technology have brought about significant changes in the way businesses operate, and mobile applications have emerged as a powerful tool for businesses to connect with their customers and streamline their operations. The Mitti mobile application is a prime example of this trend, as it has been designed to provide customers of a pottery company with an efficient and user-friendly platform to purchase pottery products, place custom orders, and seek help with any issues they might be facing.

The Mitti mobile application is an innovative solution that allows customers to browse through a wide range of pottery products, view detailed product descriptions and images, and purchase the products directly through the app. The app is designed to provide a seamless shopping experience to customers, allowing them to easily browse through the catalog of products, and add them to their cart. This not only enhances the shopping experience of the customers but also increases sales for the pottery company, as customers are more likely to make a purchase when they can do so with ease and convenience.

The app also provides a platform for customers to ask questions, request custom orders, or get help with any issues they might be having. This feature enhances the overall customer experience, as customers can get prompt assistance and support from the pottery company through the app. The app also allows customers to leave feedback and reviews, which can help the pottery company improve its products and services, and build a loyal customer base. The app was designed to be user-friendly and responsive, with a simple and intuitive interface that allows customers to easily navigate through the various features.

In addition to its customer-facing features, the Mitti mobile application also provides a range of tools to help the pottery company manage its operations more efficiently. The app can be used to manage orders, track inventory, and communicate with suppliers and vendors, making the production process more efficient and organized. This not only saves time and effort but also leads to cost savings and improved profitability for the pottery company.

Moreover, the pottery company is also a valuable contributor to the local economy, providing employment opportunities to people in the community. The Mitti mobile application is expected to further boost the pottery

company's growth and profitability, leading to increased employment opportunities, and contributing to the overall economic development of the region.

This report provides a detailed analysis of the project's objectives, design, and implementation, highlighting the key features and functionality of the app, and its potential impact on the pottery company and the local economy. The Mitti mobile application is expected to set a new standard for the pottery industry and pave the way for other businesses to leverage technology to improve their operations and connect with their customers more effectively. The development of the Mitti mobile application is a significant step forward for the pottery industry, as it leverages the power of technology to enhance the customer experience, streamline operations, and increase sales. The development of the Mitti mobile application is a significant step forward for the pottery industry, as it leverages the power of technology to enhance the customer experience, streamline operations, and increase sales. Mitti mobile application is expected to improve the pottery company's online presence, improve customer satisfaction, and contribute to the economic development of the region. The report provides a detailed overview of the project's objectives, design, and implementation, including a comprehensive analysis of the app's features and functionality].

2. PROBLEM STATEMENT

To implement a system that provides A platform for managing orders, tracking inventory, and communicating with customers, suppliers, and vendors. The absence of a mobile application results in decreased sales and limited customer engagement. The Pottery Company, a reputable provider of handmade pottery products, is facing several challenges that hinder its ability to effectively engage with customers and optimize its operations. These challenges include the lack of a comprehensive platform for customer interaction, inefficient order management processes, and limited sales channels. In order to overcome these obstacles and thrive in the competitive market, the Pottery Company recognizes the need for a robust mobile application.

3. LITERATURE SURVEY

The literature survey for the Pottery Company's mobile application focuses on various aspects that contribute to enhancing customer engagement, improving sales, and streamlining the production process.

One key aspect is customer engagement and support. Studies emphasize the importance of providing customers with a platform to ask questions, request custom orders, and seek assistance. Interactive features such as chatbots have proven effective in addressing customer queries promptly and providing personalized support, leading to improved customer satisfaction and loyalty.

Another crucial feature is the app's e-commerce functionality. Allowing customers to purchase pottery directly through the app simplifies the shopping process, increases convenience, and boosts sales for the business. A user-friendly shopping cart system is an essential component to ensure a smooth and secure transaction experience.

The app's catalog management is also crucial for showcasing the business's pottery products. A well-organized catalog with high-quality product photos, detailed descriptions, and accurate pricing information helps customers make informed purchasing decisions. It enhances their browsing experience, increases their interest in the products, and improves conversion rates.

Streamlining the production process through the app is another important aspect. Effective order management functionalities, inventory tracking, and communication with suppliers and vendors optimize the production workflow, reducing errors and delays. This leads to improved operational efficiency, timely order fulfillment, and enhanced customer satisfaction.

By incorporating these features, the Pottery Company's mobile application can create a seamless and engaging experience for customers. It empowers them to make purchases easily, request customized products, and receive prompt assistance. Moreover, the app improves the internal processes of the business, leading to increased productivity, cost savings, and overall business growth. The literature survey highlights the importance of these aspects and provides insights into best practices for developing a successful pottery company mobile application.

4. IMPLEMENTATION

The implementation of the Mitti mobile application for the pottery company requires careful planning and execution to ensure that the final product meets the needs of both the company and its customers. One of the primary goals of

the app is to allow customers to purchase pottery directly through the app, which can increase sales for the business. To achieve this, the development team will need to create a user-friendly interface that makes it easy for customers to browse and purchase products. This will require careful consideration of factors such as product categorization, filtering, and sorting.

Another key feature of the app is its ability to manage orders, track inventory, and communicate with suppliers and vendors. This can make the production process more efficient and organized, reducing costs and increasing profitability for the business. To achieve this, the development team will need to implement robust backend systems that can handle these functions, such as a database for inventory management and a supplier portal for communication with vendors.

To develop the Mitti mobile application, the development team has chosen to use the Flutter framework with the Dart programming language. This choice was made because Flutter provides a fast and efficient way to develop high-quality mobile applications for both Android and iOS devices. Additionally, Dart is a modern programming language that is easy to learn and has excellent tooling support.

To support the backend functions of the app, the development team will also use PHP and phpMyAdmin to create and manage the database. The database will be hosted on 000webhost, which provides reliable and scalable hosting services that can accommodate the needs of the Mitti mobile application.

The implementation of the Mitti mobile application will follow an agile development approach, which involves breaking the development process down into small, iterative steps. This approach allows for continuous feedback and testing, which can help to identify and address issues early in the development process. The development team will also prioritize features based on their importance and feasibility, ensuring that the most critical features are implemented first.

5. METHODOLOGY

To develop an app that caters to the needs of the Pottery Company and its customers, a structured methodology can be followed. The methodology encompasses several stages, including planning, analysis, design, development, testing, and deployment. Here's an overview of each stage.

5.1 Planning

In the planning phase, the objectives and goals of the app are defined. This involves understanding the business requirements, identifying key features and functionalities, and setting project timelines and resource allocation. It is crucial to involve stakeholders from the Pottery Company and gather their input to ensure alignment with their vision. Define the goals, objectives, and deliverables of the project. Determine the features and functionalities of the app and its intended audience.

5.2 Analysis

In During the analysis phase, a detailed assessment of the Pottery Company's current processes, customer interactions, and pain points is conducted. This analysis helps identify the specific requirements that the app needs to address, such as enabling customers to ask questions, request custom orders, and access the business's catalog of pottery products.

5.3 Design

The design phase involves creating the app's architecture, user interface (UI), and user experience (UX) design. The app should have a user-friendly interface that allows customers to navigate easily, view product catalogs with photos, descriptions, and pricing, and seamlessly make purchases. Additionally, the design should incorporate features for managing orders, tracking production processes, and facilitating customers.

5.4 Testing and Quality Assurance

Once the app is developed, thorough testing is conducted to identify and fix any bugs, usability issues, or performance bottlenecks. Testing should cover all aspects, including functionality, security, compatibility, and user experience. Feedback from both internal testers and a selected group of customers can be gathered to ensure the app meets the desired standards. Establish a testing and quality assurance process to ensure that the app meets the functional and non-functional requirements specified in the software requirements specification.

6. CONCEPTUAL/ANALYSIS MODELING

To address the challenges identified in the problem statement, the Pottery Company aims to develop a comprehensive mobile application that enhances customer experience and streamlines its operations. The conceptual/analysis modeling for the proposed app involves several key components.

6.1 Use Case Diagram

A use case diagram at its simplest is a representation of a user's interaction with the system that shows the relationship between the user and the different use cases in which the user is involved. A use case diagram can identify the different types of users of a system and the different use cases and will often be accompanied by other types of diagrams as well. The use cases are represented by either circles or ellipses.

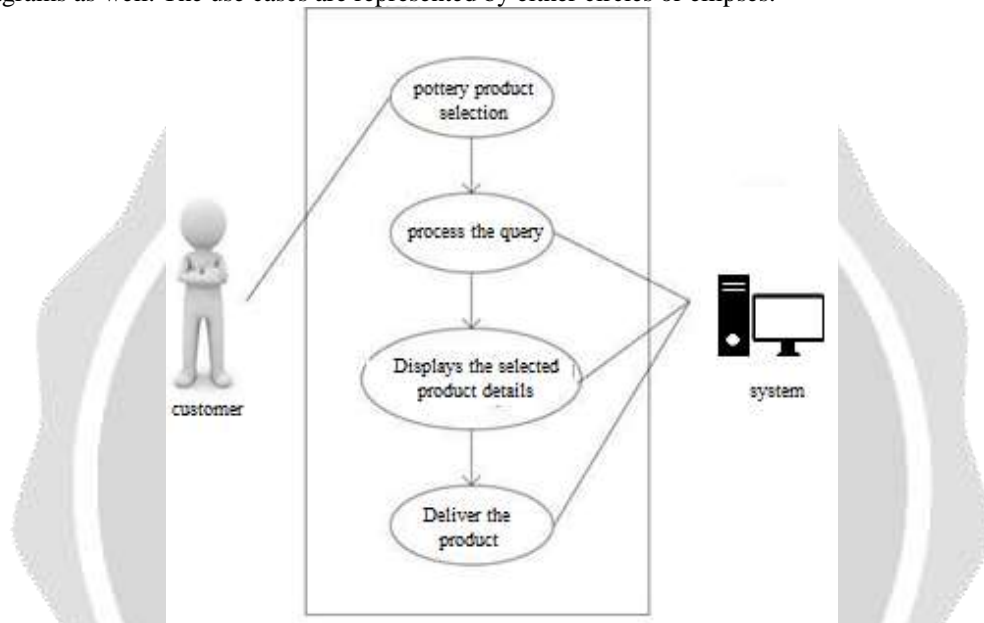


Fig -1: Use Case Diagram

6.2 Sequence Diagram

A sequence diagram shows object interactions arranged in a time sequence. It depicts the objects and classes involved in the scenario and the sequence of messages exchanged between the objects needed to carry out the functionality of the scenario.

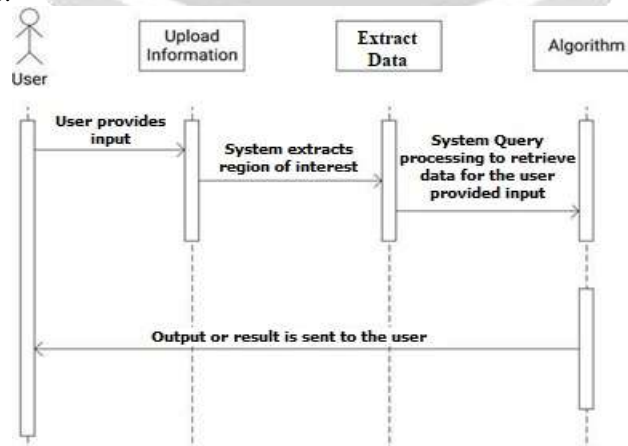
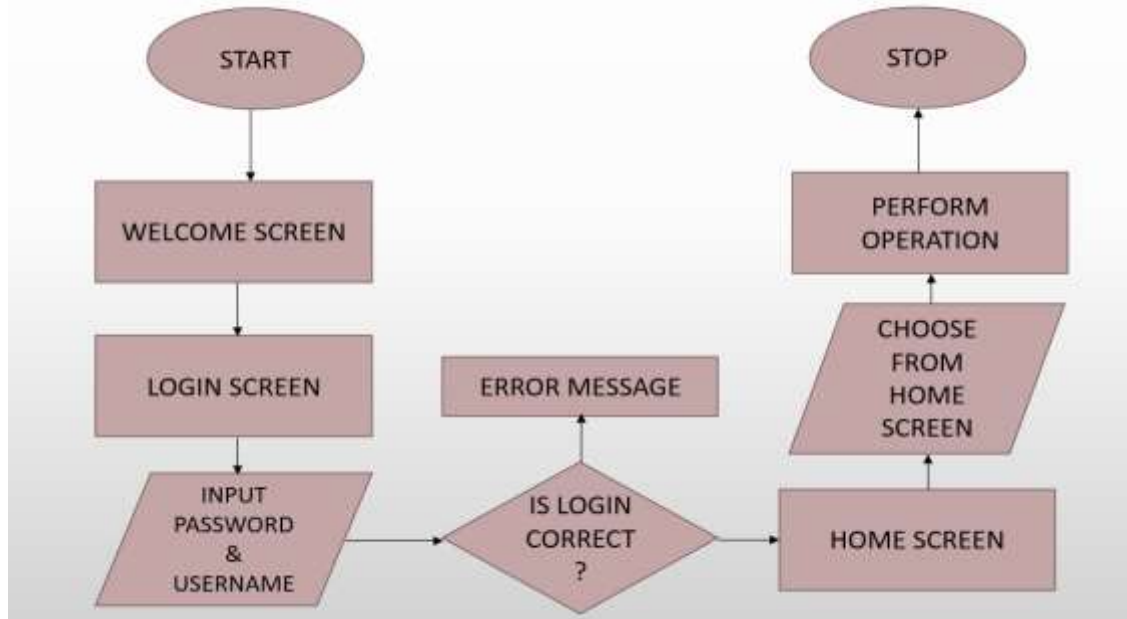


Fig -2: Sequence Diagram**6.3 Activity Diagram**

An activity diagram is a behavioral diagram i.e. it depicts the behavior of a system. An activity diagram portrays the control flow from a start point to a finish point showing the various decision paths that exist while the activity is being executed. We can depict both sequential processing and concurrent processing of activities using an activity diagram.

**Fig -3:** Activity Diagram**6.4 State Chart Diagram**

A State Chart diagram describes the different states of a component in a system. The states are specific to a component/object of a system. A State chart diagram describes a state machine. State machine can be defined as a machine which defines different states of an object and these states are controlled by external or internal events. They define different states of an object during its lifetime and these states are changed by events.

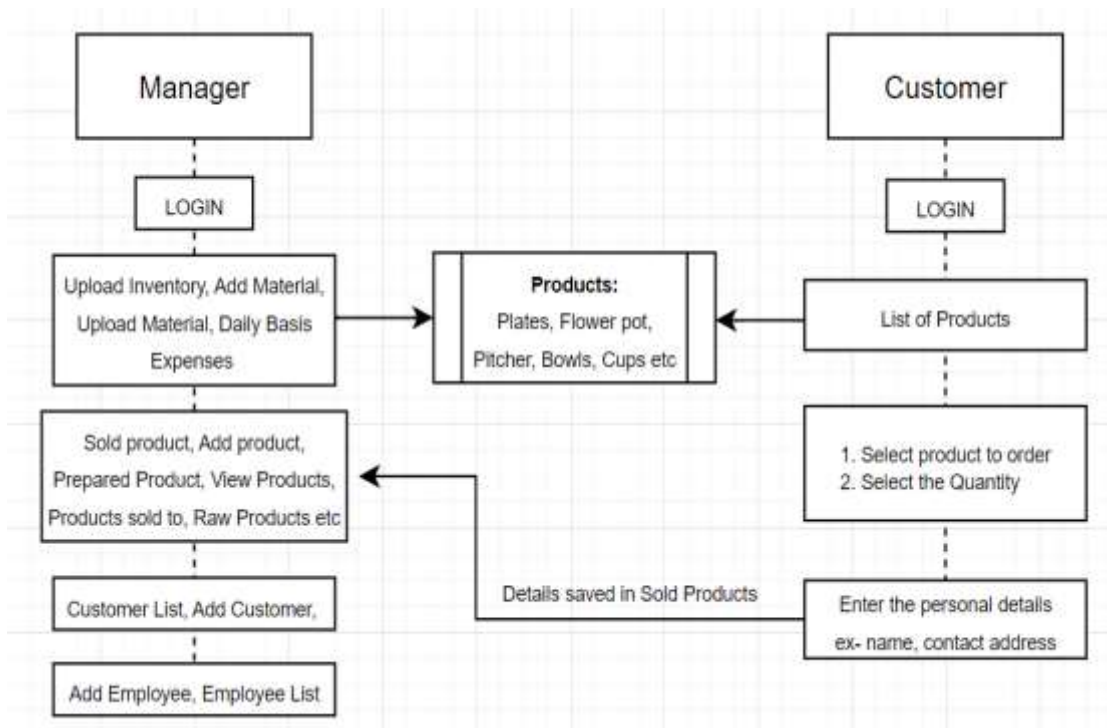


Fig -4: State Chart Diagram

7. RESULT

The implementation of the app for the Potttery Company has yielded significant results, transforming the way the business interacts with customers and operates its processes. The app has provided a convenient platform for customers to ask questions, request custom orders, and seek assistance, resulting in improved customer engagement and satisfaction. The streamlined order management and production processes have led to increased operational efficiency, reducing miscommunications and errors. Moreover, by allowing customers to purchase pottery directly through the app, the business has witnessed a boost in sales. Customers now have seamless access to the comprehensive catalog of pottery products, featuring photos, descriptions, and pricing, simplifying the shopping experiences and driving revenue growth for the Potttery Company.

8. CONCLUSION

In conclusion, the implementation of the app has revolutionized the Potttery Company's operations and customer experience. The app's platform has empowered customers to effortlessly ask questions, request custom orders, and receive assistance, fostering stronger engagement and satisfaction. The "Mitti" mobile application has the potential to revolutionize the potttery business by increasing sales and streamlining production processes. By allowing customers to purchase pottery directly through the app, the business can make shopping more convenient for customers and boost revenue.

9. REFERENCES

- [1]. Flutter: <https://flutter.dev/>
- [2]. Android Studio: <https://developer.android.com/studio>
- [3]. Madhusudhana, R. (2018). Cross-platform mobile application development: a review. International Journal of Engineering and Technology (UAE), 7(2.8), 123-128.

- [4]. Kuppusamy, K. S., & Subramanian, R. (2018). A Review on Mobile Application Development. *International Journal of Pure and Applied Mathematics*, 119(15), 697-703.
- [5]. "E-commerce adoption in small and medium-sized enterprises: A review of the literature" by Sarvotam Kumar Singh and Swati Singh, *Journal of Advances in Management Research* (2018).

