\*Mini Project Report\*

Project report submitted

In partial fulfillment of the requirement for the degree

Of

\*Bachelor Of Technology in Computer Science with Specialization In AIML\*

\*COURSE\*: B. Tech CSE (AIML)

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Under the guidance of [Ms. Megha]

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### \*DECLARATION\*

We declare that this written submission represents our ideas in our own words and where others' ideas or words have been included, we have adequately cited and referenced the original sources. We also declare that we have adhered to all the principles of academic honesty and integrity and have not misrepresented or fabricated or falsified any idea/data/fact/source in our submission. We understand that any violation of the above will be cause for disciplinary action by the Institute and can also evoke penal action from the sources which have thus not been properly cited or from whom proper permission has not been taken when needed. We further declare that if any violation of the intellectual property right or copyright occurs, my supervisor and university should not be held responsible for the same.

Student Name: [Aayush Jayara, Mayank]

Roll No.: [2301730346,2301730327]

Signature:

Place: K.R. Mangalam University

Date: [4/05/2025]

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### CERTIFICATE

It is certified that the work contained in the project report titled \*"QR Code-Based Food Ordering System for Hari Om Rasoi"\* by the following student:

Name of the Student: [Aayush Jayara,Mayank]

\*Roll Number\*: [2301730346,2301730327]

has been carried out under our/my supervision and that this work has not been submitted elsewhere for a degree.

\*Signature of Supervisor\*:

\*Name of the Supervisor\*: [Ms.megha]

\*Designation\*:

\*Date\*: [4/05/2025]

\*Place\*: K.R. Mangalam University

### \*ACKNOWLEDGEMENT\*

"Gratitude is the fairest blossom which springs from the soul."

We take this opportunity to express our profound gratitude to all those who have contributed to the successful completion of this project.

First and foremost, we would like to extend our sincere thanks to our supervisor, [Ms. Megha], for their invaluable guidance, constant encouragement, and constructive feedback throughout the project.

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Our heartfelt thanks to our friends and family for their moral support and encouragement during the course of this project.

\*Place\*: K.R. Mangalam University

\*Date\*: [4/05/2025]

\*Name of Student\*: [Aayush Jayara , Mayank]

### \*ABSTRACT\*

The rapid advancement in technology has revolutionized the food industry, making digital solutions an integral part of restaurant operations. This project introduces a \*QR Code-Based Food Ordering System\* for \*Hari Om Rasoi\*, a restaurant aiming to enhance customer experience by minimizing physical contact and reducing wait times. The system allows customers to scan a QR code placed on their tables, access the restaurant’s digital menu, place orders directly from their smartphones, and make payments online.

The project leverages \*Python, Flask for backend development, HTML/CSS/JavaScript for frontend design, and SQLite for database management\*. The system ensures efficiency, scalability, and user-friendliness while addressing the challenges of traditional ordering methods. By integrating QR code technology, the system promotes a seamless, contactless dining experience, aligning with modern hygiene standards and customer expectations.

\*Key Words\*: QR Code, Food Ordering System, Flask, SQLite, Contactless Dining, Restaurant Management.

### \*Chapter 1: INTRODUCTION\*

The food industry is increasingly adopting digital solutions to improve operational efficiency and customer satisfaction. Traditional methods of ordering food in restaurants involve manual processes, which can be time-consuming and prone to errors. To address these challenges, this project proposes a \*QR Code-Based Food Ordering System\* for \*Hari Om Rasoi\*.

The system enables customers to:

- Scan a QR code to access the restaurant’s digital menu.

- Place orders directly from their smartphones.

- Make secure online payments.

- Receive real-time updates on their order status.

This project aims to:

- Reduce wait times and improve order accuracy.

- Minimize physical contact, promoting hygiene.

- Enhance customer experience through a user-friendly interface.

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### \*Chapter 2: Literature Review\*

The adoption of QR code technology in the food industry has gained momentum due to its convenience and efficiency. Existing systems highlight the benefits of contactless ordering, such as reduced human error, faster service, and improved customer satisfaction. This chapter reviews relevant studies on QR code applications, digital menu systems, and restaurant management solutions, providing a theoretical foundation for the project.

### \*Chapter 3: Problem Formulation and Objectives\*

\*Objectives\*:

- To develop a QR code-based system for seamless food ordering.

- To create a responsive and intuitive user interface.

- To integrate secure online payment options.

- To ensure real-time order tracking and management for staff.

### \*Chapter 4: Methodology\*

\*Step 1: System Design\*

- \*Frontend\*: HTML, CSS, JavaScript for the user interface.

- \*Backend\*: Flask framework (Python) for server-side logic.

- \*Database\*: SQLite for storing menu items, orders, and customer data.

\*Step 2: QR Code Integration\*

- Generate unique QR codes for each table.

- Link QR codes to the restaurant’s digital menu.

\*Step 3: Implementation\*

- Develop the customer interface for browsing and ordering.

- Implement the admin dashboard for order management.

- Integrate payment gateways (e.g., Razorpay).

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### \*Chapter 5: Implementation\*

\*Database Schema\*:

- \*Menu Table\*: ItemID, ItemName, Price, Category.

- \*Orders Table\*: OrderID, TableNo, Items, TotalAmount, Status.

- \*Payment Table\*: PaymentID, OrderID, Amount, PaymentStatus.

\*Sample Screenshots\*:

- QR code scanning interface.

- Digital menu and order placement screen.

- Admin dashboard for order tracking.

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### \*Chapter 6: Results and Discussion\*

The system successfully demonstrates:

- Efficient order placement via QR codes.

- Real-time order updates for customers and staff.

- Secure payment processing.

\*Future Enhancements\*:

- Loyalty program integration.

- Feedback collection mechanism.

- Multi-language support.

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### \*Chapter 7: Conclusion\*

The QR Code-Based Food Ordering System for \*Hari Om Rasoi\* offers a modern, efficient, and hygienic solution for restaurant operations. By leveraging QR code technology and digital tools, the system enhances customer experience and streamlines order management. Future work may include expanding features like AI-based recommendations and advanced analytics for business insights.

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