THE FUTURE OF HOME COOKING: MOM'S KITCHEN AI - AN AI-DRIVEN KITCHEN PLATFORM

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ABSTRACT

Moms Kitchen. Moms Kitchen.ai is a unique platform powered by artificial intelligence with the main aim of changing people's behavior towards cooking and managing meals. The different components of the platform comprise four central features: a smart bot that designs users' recipes on the basis of their likes and foods which are on hand; a food shopping assistant that aids in doing away with undesired shopping hassles, and also carries out the shopping automatically; a system of ordering chefs who will come and prepare meals at the homes of users; as well as an extensive blog, the main content of which is also themed around food, its recipes, nourishment tips as well as food fashions.

Common problems such as meal planning that takes too long, grocery shopping that is not only cumbersome but time wasting, as well as the availability of many cooking services that are rather expensive have also been resolved. In enhancing the overall experience of the kitchen, the all-in-one approach allows users to prepare food with ease, order groceries, pay for the work of professional chefs, and follow interesting blogs and their posts for ideas and designs.

Keywords: Recipe AI, Grocery Shopping, Blog, Chatbot.

I.   INTRODUCTION

In an increasingly busy world, it's obvious that time and convenience is essential, while the kitchen is still the heart of the household, a space where people and families gather to cook and eat. But, planning meals, going to a grocery store and preparing food can be time-consuming and complicated especially for those with more demanding work or with certain special diets. Solving these issues, **Moms Kitchen.ai** comes into the picture as a brand new platform centered around AI technology with which modern cooker's challenges can be addressed in the simplest way possible.

Moms Kitchen.ai capsulates four major elements which help streamline the whole culinary experience into a walk in the park:

1. AI-Powered Recipe Generation: A smart chatbot that creates personalized recipes that match user preferences uses available ingredients and takes dietary requirements into account. This guarantees that users will get meals specially designed for them.

2. Shopping List/Ingredients to Buy: It auto-generates grocery lists and is integrated with both online and physical stores, making it easier for the consumers to shop for ingredients.

3. Cheffing Services/Moms' Kitchen: It is a hope platform whereby, users are linked with registered professional chefs and can request for personalized cooking services for kitchen meals for occasions and for everyday food.

4. Recipe Blogs and Content: An engaging blog section offers users access to culinary knowledge, including trending recipes, cooking tips, and nutrition advice, enhancing their overall food experience.

II.   METHODOLOGY

Research Design

This study employs a mixed-methods approach, integrating both qualitative and quantitative methods, to investigate the effectiveness of Moms in changing people's behavior towards cooking and managing meals. The research design is divided into two phases: developmental research and evaluative research.

Data Collection Methods

Data Creation for Mom's AI Chart Board

To develop a comprehensive AI-powered recipe generation system, a robust dataset was created from scratch. This involved compiling a vast collection of recipes spanning multiple cuisines, including Indian, Mexican, Italian, Chinese, and many others.

Dataset Specifications

- 12 recipe Excel sheets were created, each focusing on a specific cuisine.
- Over 6,000+ unique recipes were added to the dataset.
- Recipes cater to diverse dietary requirements and preferences, including:
- Vegan
- Lactose-free
- Gluten-free
- Non-vegetarian
- Low-calorie
- Sugar-free
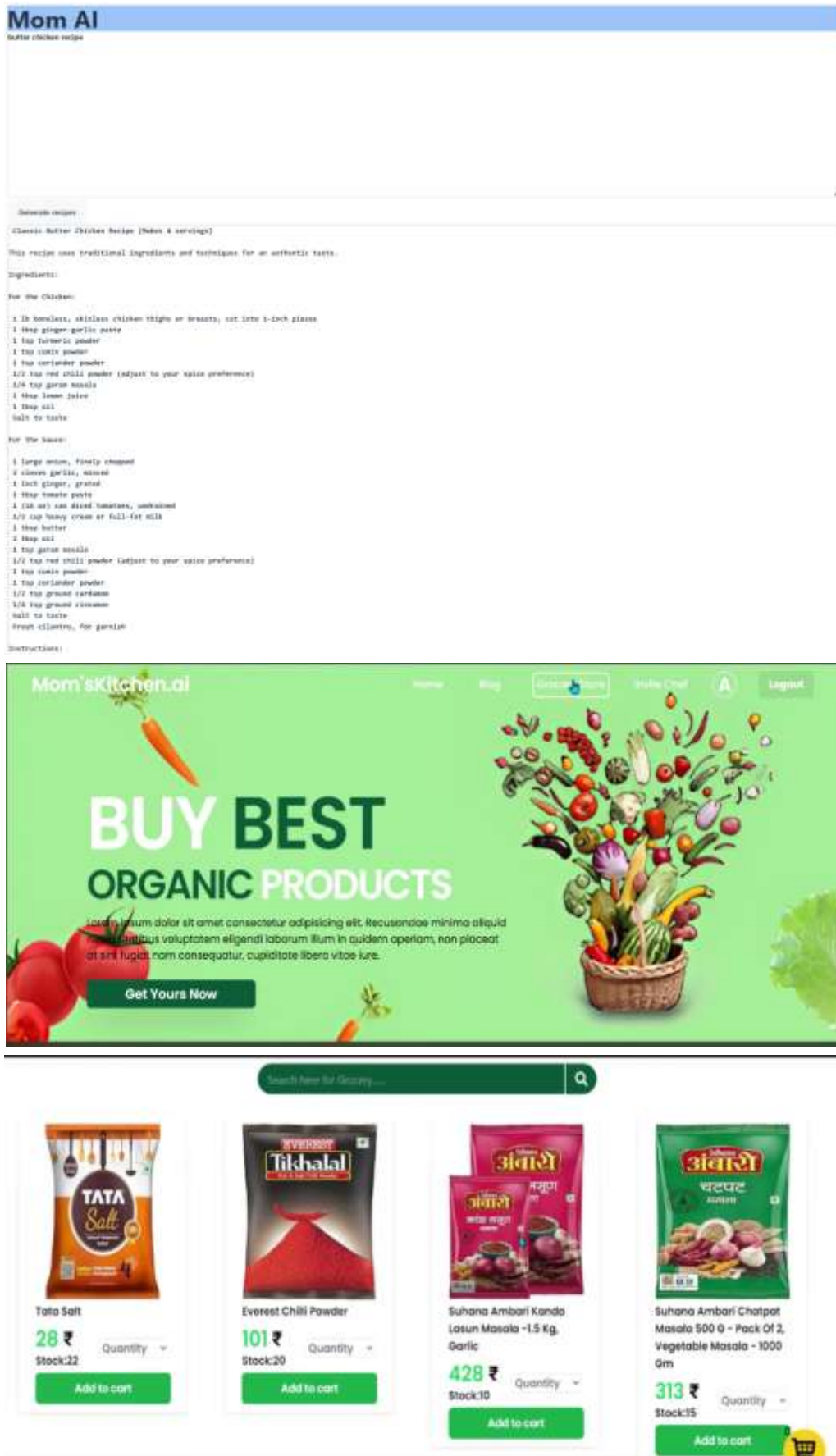- Halal
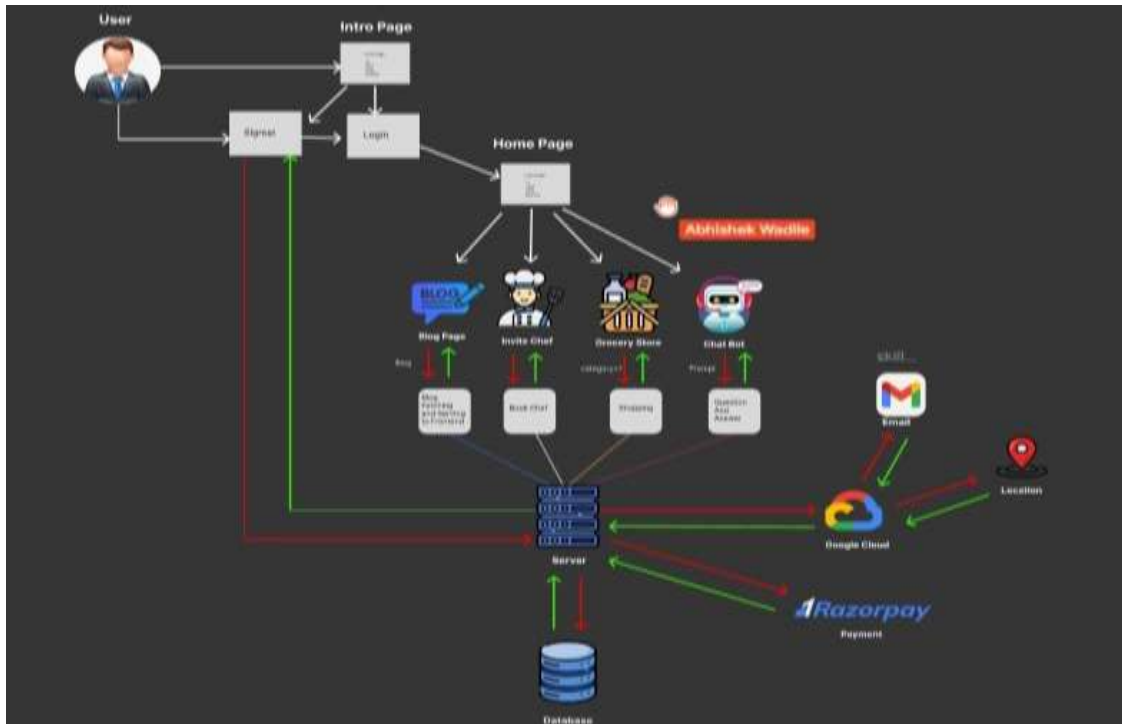
III.   MODELING AND ANALYSIS
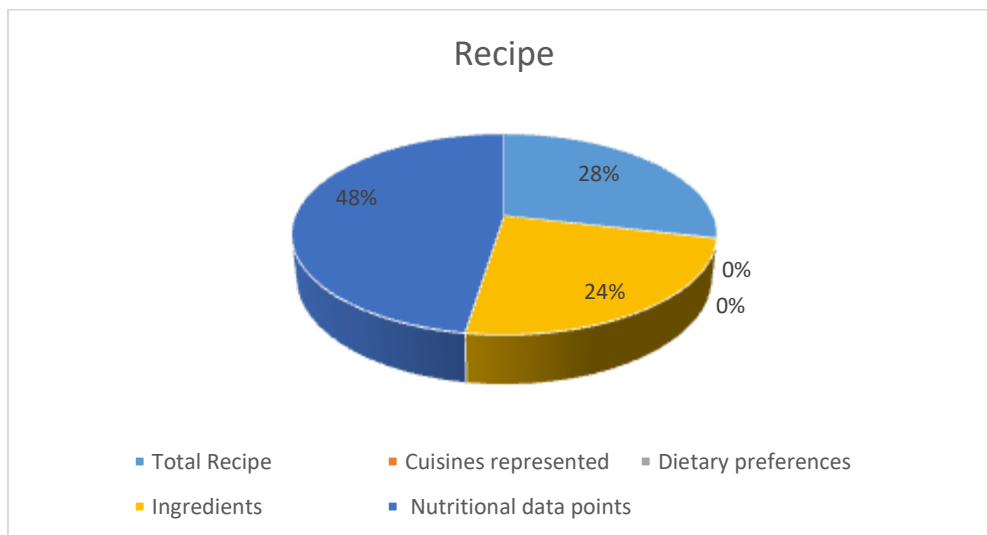
Figure: 3D view of building.

IV.   SYSTEM DESIGN

V.   CONCLUSION

The development of Mom's AI, a revolutionary AI-powered cooking platform, has reached a significant milestone with 70% completion of its backend infrastructure. The platform's core functionality, including AI-driven recipe generation and grocery shopping, is nearing completion.

Upcoming Features

1. Invite Chef feature, enabling users to book professional chefs for personalized cooking experiences.
2. Blog page, offering expert culinary advice, recipes, and nutrition tips.
3. Enhanced search functionality, incorporating pantry elements for more accurate and efficient recipe suggestions.
4. Completion of remaining backend development.

VI.   REFERENCES

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