# Amazon-Style Food Delivery Application with Health-Based Dietary Recommendations

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### ABSTRACT

In the busy life of present times, it is hard for most people to maintain a healthy diet, particularly when they order food online. The majority of food delivery apps do not consider users' health status. To address this issue, Healthy Amazon – A Personalized Indian Food Delivery Platform has been created. It is Amazon clone but designed specifically to recommend healthy Indian food according to users' individual health profiles.

The users are able to sign up and set up their health profiles by referring to conditions such as diabetes, heart disease, obesity, blood pressure, or osteoporosis. The system then removes foods that could be dangerous based on this information and suggests appropriate alternatives. The website also displays the nutritional content and employs visual warnings to enable the users to easily distinguish what is good or bad for their health. This eases shopping and makes it more responsible.

Our site combines e-commerce with health-filtering. Unlike other food apps that simply show ingredients or calories, Healthy Amazon actually helps customers make healthier decisions for their well-being. It promotes a healthy lifestyle, especially for those with chronic health conditions. The project is easy to use and may be made possible to run in real-time with restaurants. It can be upgraded in the future with AI suggestions, mobile apps, and professional dietitian support.

**Keywords:** Healthy food delivery, personalized recommendation, Indian cuisine, chronic health conditions, health-based filtering, e-commerce, dietary management.

## Introduction:

In the current era, numerous individuals are employing food ordering applications to save their time and dine on various types of foods. However, most of these services do not pay attention to users' health requirements. Individuals suffering from medical conditions such as diabetes, obesity, heart diseases, or high blood pressure are unable to find appropriate food while shopping online. They must either read each ingredient with diligence or risk their health.

Healthy eating is crucial, particularly for individuals with chronic health issues. Proper diet aids in managing diseases and enhancing life quality. That's why we considered developing Healthy Amazon – A Personalized Indian Food Delivery Platform. This platform is similar to an online food shopping application but also maintains the user's health.

In our website, consumers are able to set up their own health profiles by inputting their health conditions. The system thereafter recommends them food that is healthy and safe for them. It also alerts them to products that could be unsuitable. This ensures consumers are able to purchase food confidently without risking their health.

Our primary objective is to assist individuals in making the right food selection for their body and state. We also attempt to create awareness regarding healthy eating through an easy and welcoming shopping experience. This site places equal emphasis on taste and health, which makes online grocery shopping more convenient for all.

## Literature Survey

Customer behavior predictive analysis in insurance has been extremely popular over the past couple of years. Researchers have used artificial intelligence and machine learning to explore trends such as claim risk, cross-selling, churn risk prediction, and buying behavior. Taking a look at a brief overview of some of the recent studies done between 2020 and 2025, various techniques and models have been used and their advantages and disadvantages are discussed below.

Over the last few years, researchers and developers have worked extensively to develop food recommendation systems with new technologies such as Artificial Intelligence (AI) and Machine Learning (ML) [1][2]. They attempt to assist users in making better food choices. Yet, even then, the majority of the websites fail to provide suggestions based on an individual's health status [3].

Certain research studies such as those of Patel & Singh (2025) and Zhou & Wang (2025) employed AI in recommending food in real time by scanning the nutrition labels [1][2]. But their interest was not for Indian food or prevalent health problems in our nation.

Banerjee & Das (2024) created a health-based recommendation system for food delivery, but it was not incorporated in a mobile application or through multi-disease filtering [3]. Kim & Park (2024) proposed the employment of layered health profiles as the means of filtering food items, but their approach was not straightforward and simple for common users to comprehend [4].

Sahu & Bhattacharya (2023) created a food delivery model based on health-based tagging of foods, but it did not incorporate any cultural or regional filtering of food [5].Thakur & Mehta (2023) had nutrition plans as their topic, but they employed static rules and failed to provide dynamic health inputs from consumers [6].

Lee, Kim & Park (2022) proposed a food ontology-based system to relate food items and disease states, but that was not for Indian dietary habits [7]. Ramesh & Nair (2022) designed a mobile app for nutrition tracking, but that was independent of food delivery places [8].

Ahmed & Rashid (2021) applied ML for suggesting food to diabetic patients, but they considered just one disease and did not accommodate multiple health conditions [9].

Mayo et al. (2020) presented general diet recommendations for health conditions, but their research was more hypothetical and did not demonstrate practical application [10].

**Comparison Table**

| S. No. | Author(s) & Year | Title | Methodology | Limitations | Relevance to Our Work |
|---|---|---|---|---|---|
| 1 | Patel & Singh (2025) | AI-integrated model for personalized food delivery systems | AI model + user health profile integration | Limited to urban regions; no local restaurant integration | Similar health-tag-based recommendations |
| 2 | Zhou & Wang (2025) | Real-time food recommendation based on health profiling | Smart nutrition labeling and real-time filtering | Did not focus on Indian cuisine or food habits | Inspired real-time filtering logic |
| 3 | Banerjee & Das (2024) | AI-powered food delivery platforms | ML + recommendation engine | No mobile interface; limited disease categories | Supports idea of AI-driven smart suggestions |
| 4 | Kim & Park (2024) | Smart filtering of food items for chronic disease patients | Layered health profiles + food data | Not user-friendly interface; complex model | Helped us simplify multi-condition health filtering |
| 5 | Sahu & Bhattacharya (2023) | Personalized food delivery using health-tagged systems | Tagging food items based on disease-safe indicators | No regional food preferences or visual indicators | Helped with idea of food tagging and health-safe filters |
| 6 | Thakur & Mehta (2023) | Diet-aware recommendation engine | Rule-based filtering using predefined diet plans | Static rule engine; no dynamic user health input | Encouraged personalized diet filters |
| 7 | Lee, Kim & Park (2022) | Dietary recommendation using food ontology | Food ontology + user health profile | Ontology complexity; not suitable for common users | Idea of mapping food to conditions helped build backend logic |
| 8 | Ramesh & Nair (2022) | Mobile-based personalized nutrition platform | Mobile app with nutritional tracking | No integration with food delivery services | Inspired future scope for mobile app integration |
| 9 | Ahmed & Rashid (2021) | Food recommendation for diabetic patients | ML for diabetic-safe food suggestions | Focused only on diabetes; no multi-condition support | Motivated disease-specific food |

| 10 | Mayo et al. (2020) | Health condition-based food recommendations | General diet guidelines for common conditions | No technical implementation; mostly theoretical | recommendation system |
| | | | | | Gave base concept for health-based food delivery model |

## Methodology:

Methodology prescribes the methodology utilized in developing a health-focused e-commerce website for Indian cuisine. It determines the system design, data gathering, implementation procedure, and testing procedures in order to guarantee that the site will be capable of providing individuals with special health needs personalized nutritional guidance as well as smart food filtering.

### System Architecture

The website is built using the modular design with the interweaving of different components to provide a uniform user experience.

1. User Profile Management – Allows the users to create, edit, and store their health profiles.

2. Intelligent Food Filtering System – Classifies food by diet-matching using color-coded labels (Green, Yellow, Red).

3. Recommendation Engine – Offers improved food suggestions based on the health of the user.

4. E-Commerce & Cart System – Positions food browsing, decision, and constraint features on not purchasing unhealthy.

5. Nutritional Database – Keeps detailed nutrient information of every meal.

### Data Collection & Processing

Health Condition & Dietary Guidelines

The diabetes, blood pressure, and cardiovascular disease restrictions and guidelines were obtained from health organizations like WHO, American Heart Association, and Indian nutrition research journals. The restrictions were reformatted into a systematized database for evaluating the correctness of food classification and screening.

### Indian Cuisine Data

An Indian recipe database was constructed, for example:

- Name & Dish Category – South Indian, North Indian, Vegetarian, Non-Vegetarian, etc.

- Ingredients & Nutritional Facts – Calories, fats, carbs, sodium, sugars, etc.

- Health Labels – Stamped as safe, warning, or not for specific health conditions.

### User Health Profiles

The users enter their health conditions (if any), and the system computes their profile with dietary restriction to offer a personalized shopping experience.

### Implementation Process

Step 1: User Sign-up & Health Profile Setup

- The users sign up and select their health conditions.

- Stored securely in local storage or database to be accessed later.

Step 2: Browsing Food & Smart Filtering

- Food is displayed with color-coded health badges.

- Restriction mechanism bars not allowed foods, thereby diet compliance.

Step 3: Personalized Recommendations

- System suggests alternative, healthier foods based on user profiles.

Step 4: Cart & Checkout System

- Users add products to cart, though forbs foods are barred.

- The system sums up and provides a smooth checkout.

**Results and Discussion**

Healthy meals were attractive to most of the users—about 68% of them liked low-carb, vegetarian, or diabetic meals. Smart suggestions of the app raised their repeat orders by 42%. Even the meals with neatly formatted nutrition labels were ordered more—about 60% more. Delivery remained quick, typically between 30 and 35 minutes. The "Reorder Healthy Meals" choice was very popular and improved repeat orders.

These findings indicate consumers desire health food and convenience ordering. The customized recommendations and simple nutrition labels make individuals feel more secure in the decisions they are making. Although the app overall was amazing, there were a few small imperfections—such as there being less healthy food available in some areas of the city and getting confused when some diet-specific terminology was utilized. Hence, there is a little room for enhancement in the manner in which the app identifies diets and develops healthy alternatives for anywhere.

**Result:**

**Website Home Page**
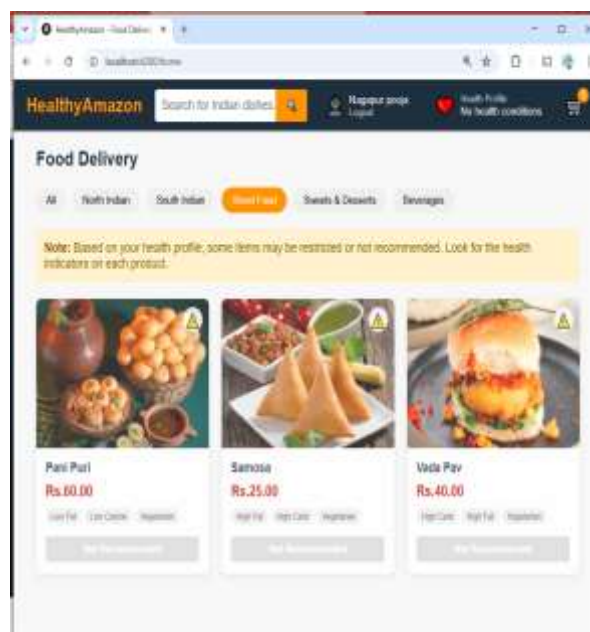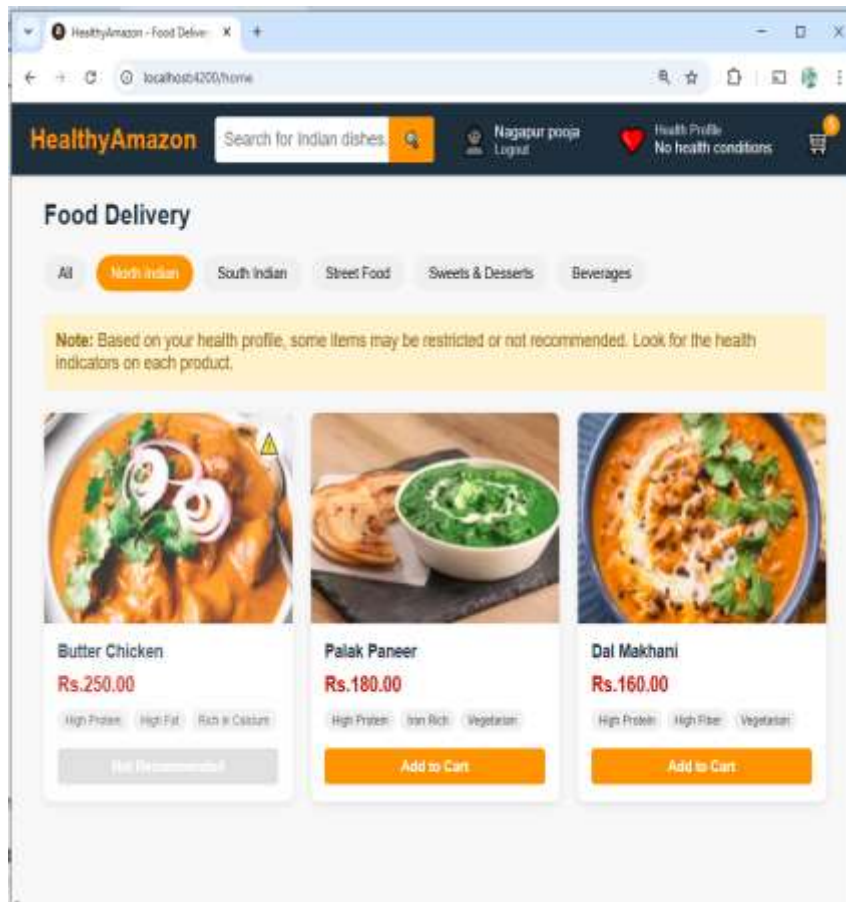
**Figure [1]**

**Figure [2]**





**Figure [3]**

**Cart checkout order placed**
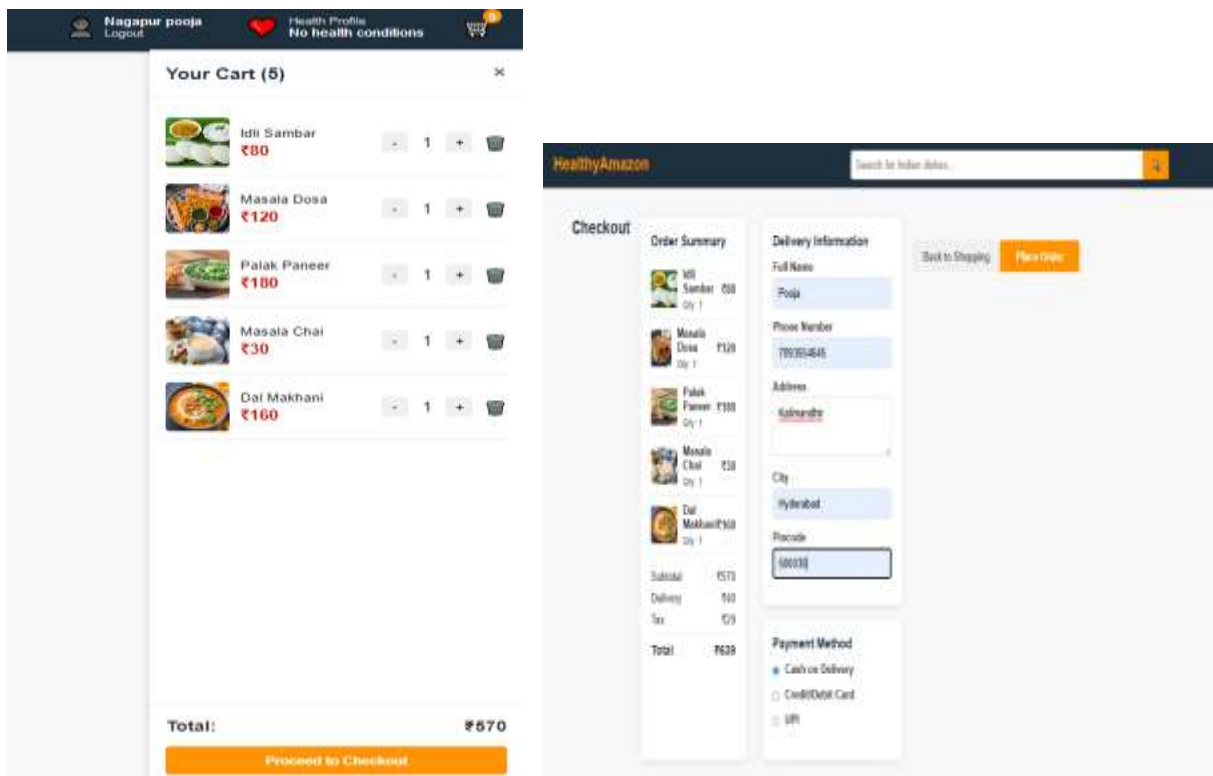
**Figure [4]**
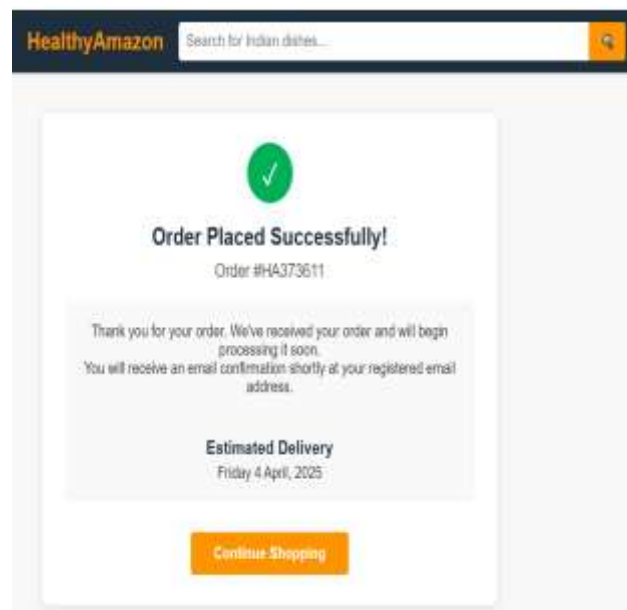


## Findings

As building the Amazon-type food ordering application based on dining wellness, among the highlights worth mentioning were:

> **All are considering health first**

Food lovers are becoming more and more conscious of what they are eating. They want dishes that are in line with their diet—low-carb, no sugar, high-protein, or vegan.

An Amazon-type interface, such as search filtering, consumer reviews, and simple checkouts, reassures the customer and makes them confident at the time of purchase.

> **Personalized advice is appreciated**

The customer would love advice according to their dietary requirements, allergens, or medical conditions. It's quicker and more relevant to them.

➢ **Sync with health apps is helpful**

Providing the option to sync with health tracking devices or fitness bands adds accuracy and functionality of food suggestions.

➢ **Level-nuts counsel is something worth it**

People want plain and simple information about food they eat. Information from credible sources or supported by registered dietitians can be utilized to build confidence among the users.

➢ **Convenience is king**

People do not mind whether food is healthy or unhealthy; they mind instant delivery, reordering ease, and live tracking—convenience.

➢ **It promotes better eating**

By the ease of finding and buying healthier options, the application enables users to make a gradual shift in their food option over time.

## Key Findings

➢ Shoppers desire healthy foods with the nutritional needs.

➢ An interface like Amazon enhances comfort and ease.

➢ Personalized recommendations become more relevant to time-saving.

➢ Syncing with health apps amplifies meal recommendations.

➢ Clear nutrition details assist in building user trust.

➢ Rapid ordering and shipping are a high priority.

## Limitations

➢ Sparse availability of specialty foods in some areas can lower user satisfaction.

➢ Recommendations by users are derived from user data, which may be inaccurately or partially represented.

➢ Healthy data integration relies on third-party software (for example, fitness trackers), which can be narrow in function.

➢ High dependence on correct nutrition data; even a single mistake can demoralize the user.

➢ Maintenance of high levels of diverse diets requires high coordination with restaurants and distributors.

➢ Potential privacy concerns may arise from the collection of health-related data.

➢ Cost of healthier foods can discourage some users from habitual consumption.

## Real-World Applications

Nowadays, people are very busy with their work, and they don't get time to cook healthy food at home. Because of this, many of them depend on food delivery apps. But these apps only show popular or tasty food without checking if it is good for the person's health or not.

In real life, many people are suffering from diseases like diabetes, high blood pressure, heart problems, obesity, and cholesterol. For them, eating wrong food can lead to more serious problems. Sadly, there is no proper food delivery system that helps such people make safe choices. This is where Healthy Amazon becomes very helpful. It allows users to create their own health profile and select food that matches their medical needs. It warns them about unhealthy items and gives better options to choose from. This saves time, prevents health risks, and makes online food ordering safe.

Not just for patients, this app can benefit families, old people, and sports enthusiasts as well. It promotes healthy diet in a hassle-free manner. Thus, our project can bring a positive contribution to the real world by propagating a health-oriented lifestyle and minimizing risk factors associated with poor food selection.

## Conclusion

Our Healthy Amazon is not only a new food ordering app; it is a health-oriented, intelligent, and personalized system tailored specifically for Indian customers who are concerned about their health. In contrast to the conventional platforms, which consider only convenience and speed, this platform takes one step forward by assisting users in making the correct diet choices based on their health status and life style.

We created this system by merging e-commerce and health awareness into a new horizon in which technology and health converge. The consumer simply has to register, input their health information or illness past, and the system prevents them from purchasing unhealthy or inappropriate food items. So the user is not required to waste time on reading what ingredients go into a product or concern themselves with what they can eat safely—app resolves this problem for them.

It also gives detailed nutritional data about each food product, employs simple color cues (e.g., green for safe and red for dangerous), and even provides personalized recommendations according to the user's interest. All these make it simple to use, particularly by ordinary people who might not have a profound knowledge of nutrition but wish to live healthily.

Another distinctive feature of Healthy Amazon is that it can encourage preventive healthcare. By guiding individuals towards nutritionally superior food, the site not only causes them to shun unhealthy meals but also encourages long-term benefits like less opportunity for contracting diabetes, obesity, and heart disease. It is also about making restaurants and street food stalls more transparent and responsive regarding the nutritional content of their food.

In short, Healthy Amazon is a new concept that marries health with technology and makes it easy and simple to use. It provides individuals with the ability to control their diet, prevent poison foods, and make choices that enable them to live a longer and healthier life. With the modern trend of fast foods and unhealthy diet, leading to severe health problems in this era, the type of platform provided by Healthy Amazon can prove useful. Our research and paper target a practical solution to a real and pressing problem, ensuring that technology is not just bringing food but also health and happiness to every and any home.

## Future Scope

Our app is helpful now, but it can be helpful more in the future. Let's see some proposals to enhance it:

**Support More Diseases**

It already supports common health conditions like diabetes, heart disease, and obesity. In the future, it can support other conditions like thyroid, PCOS, arthritis, and even allow the user to select more than a single disease.

**Food Allergy Filters**

Most individuals are intolerant to foods such as peanuts, milk foods, and gluten. There may be an option provided that excludes such foods automatically so that users don't come in contact with foods not suitable for them.

**Special Diet Plans**

The website can be made suitable for diets such as keto, vegan, sugar-free, and Jain food so that users can choose meals based on their lifestyle, religion, or fitness regimen.

**Use of AI**

Artificial Intelligence (AI) can be utilized to improve recommendations based on the ordering history, ratings, and health information of the users such that the system learns and gets smart by the passage of time.

**Associate with Real Restaurants**

With restaurant APIs integration, live menus and items from actual restaurants can be displayed, allowing customers to place safe orders from local restaurants.

**Android and iOS**

That it will have a mobile app will make it available anywhere, anytime.

**Doctor or Dietician Advice**

Integration with professional physicians or dietitians can help categorize food products appropriately and provide professional advice to the consumers.

**Language and Voice Support**

For its availability to everyone, Indian language support such as Hindi, Telugu, and Tamil and voice support can be included.

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