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Enhancing Student Health and Wellness

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Abstract—A revolutionary idea that has transformed how people order and get food is food delivery paired with tech-nology. Food delivery services have become increasingly popular, especially among students living far from home. However, the current services do not prioritize the nutritional value of the food they offer. As a result, this paper reviews literature on student nutrition and its relationship with food delivery websites. The major goal is to put up a proposal for offering students healthy meal services by utilizing modern technologies and market trends. Food delivery businesses can better serve the needs of students who are frequently busy and may not have access to healthy meals by concentrating on nutritional and health factors. This study emphasizes the necessity for food delivery services to include nutritional concerns in their menus in order to guarantee that students receive meals that are both well-balanced and nourishing. The suggested idea can benefit students' health and wellness while giving meal delivery businesses that place a high priority on nutrition a competitive edge.

Index Terms—Food delivery system, Nutrition, User Interface, Collaborative Filtering, Dynamic Pricing

I. INTRODUCTION

Online meal delivery services have seen a sharp increase in popularity in recent years, thanks to factors such as rising smartphone usage, shifting customer tastes, and the practicality of on-demand food delivery [1], [2], [3]. Due to all these

fea- tures, students also find it convenient to use these services and there is rapid increase in usage of food delivery websites [2]. Living far away from home, students always lack nutrition in food, as most of the websites provide fast and junk food. Thus, it becomes very important to provide a user-friendly platform to access healthy food [3], [4], [5]. There are several issues faced by students in finding healthy food alternatives.

High prices, quality issues, and inconsistency in availability are a few of them.

A healthy food delivery system for students may be required for fulfillment of nutritional requirements, and it will provide more healthy options to explore [3]. The main users of our proposed system are supposed to be students. Secondly, vendors will get a fixed order, and therefore the loss caused by wrong estimation of sales will be minimized. People belonging to the nearby villages doing farming and dairy farming will be benefited as most of the requirements will be fulfilled by the products produced by them, and they will get a reasonable price. The problem statement of the food delivery system project is to develop a website that can act as an interface between students and local vendors. The development of such a website is necessary for students to find healthy food options. However, building such a website is challenging due to the dynamic nature of the prices of seasonal food items, which are influenced by various factors such as weather, availability, and maintenance charges. The website will be designed to show real time price and availability, enabling users to purchase food items at the best prices. Also, on campus, there is always a shortage of items like fruits and milk, with very little variety available to choose from. Having a bad diet not only affect a student physically but mentally also. Studies have shown a direct relationship between student diet intake and their academic performance. Therefore, it becomes more important to ensure that students get proper nutrition.

II. RELATED WORKS

Pal et al. (2022) investigate the elements that influence col- lege students' pleasure and adherence to online meal delivery services during the COVID-19 lockdown. According to the survey, characteristics including perceived value, usability, and app trust are crucial motivators of pleasure and fidelity among college students [6]. Park et al.(2021) explore how customers' intentions to buy restaurant services are affected by internet reviews, trust, and picture superiority. The intention to buy is similarly positively impacted by trust, whereas picture superiority had no discernible influence [7]. The article by Mehrolia et al. (2021) examines the impact of the COVID-19 pandemic on customers' responses to online food delivery services. The authors used a binary logistic regression model to analyze the data collected from 384 respondents in India. According to the study, users' opinions of the dependability and security of online food delivery services, as well as their perceptions of the risk of contracting COVID-19, had a substantial impact on how eager they were to use those services. Customers were also more inclined to use the online meal delivery service in the future if they were satisfied with it [8]. Kamilah et al.(2020) did a case study of the food delivery service provider Foodpanda and outlined the elements that have influenced its organizational success. The author's exam- ine the company's growth, strategies, and history. They then do a SWOT analysis to determine the company's strengths, weaknesses, opportunities, and threats [9]. The authors also go into the difficulties the business has, such as the need to manage expansion and profitability while still dealing with fierce competition.

Poelman et al.(2020) used a cross-sectional design to exam- ine the possibilities for food delivery offered by several online companies, including Uber Eats, Deliveroo, and Grubhub. The study examined the accessibility, cost, and quality of meals, as well as the variety of choices and the meals' nutritional value. The findings revealed that the three cities' possibilities for food delivery varied greatly [10].

Jiang et al. (2019) found that there was a higher likelihood of obesity among students who ordered takeout more frequently. Moreover, individuals who ordered takeout more frequently than three

times per week had a noticeably increased risk of becoming obese compared to those who ordered it less frequently than once per week [11]. The study also discovered that male students, students with lower levels of physical activity, and students who consumed more calories each day were more likely to be obese. The authors contend that initiatives to lower college students' takeout intake could aid in the fight against obesity. They also suggest that future studies concentrate on figuring out the precise elements that lead to Chinese university students' excessive takeout food intake [12].

III. METHODOLOGY

There are mainly three base algorithms for working principle of the website as shown in Fig 1.. The design choice emphasizes cutting-edge, fashionable design components that are appealing to younger people. The website would include a mix of high-quality graphics and photographs in a colorful and lively design. The website would also feature a more elaborate navigation menu with sections for fruits, vegetables, snacks, and drinks, in addition to sections for particular dietary preferences and constraints [13-15].

Collaborative filtering would be the method utilized for this design, which would suggest dishes based on a user's previous orders and the orders of users who are similar to them. In order to provide each user with individualized recommendations, the system would examine information such as order history, ratings, and reviews [16-19]. Students who want a more personalized experience when ordering healthy cuisine should choose this design choice. Consumers can easily explore various meals and categories thanks to the contemporary design and extensive navigation menu, and the collaborative filtering system makes sure that consumers are shown personalized recommendations that are catered to their interests [20-22].

IV. PROPOSED SYSTEM

The workflow of proposed system contains some basic steps (Fig.1). Students can access the website's features and services after registering as a user and logging in. Students can buy the items they want and pay for them online by browsing the menus of partner restaurants and submitting orders depending on their dietary needs and preferences. The website would arrange for delivery to the student's address once the order had been processed, providing real-time information on the order's progress and arrival. After making their payment, students can provide feedback on the food's quality and the delivery experience, aiding the website in improving its services. A clean and straightforward style, clear navigation, and high- quality photographs of the food options are essential for making the website user-friendly and visually appealing for students.

The website should also be mobile-friendly because many students use smartphones to access the internet. We can develop a website that caters to the needs and preferences of our target audience by following a design flow that includes defining the target audience, researching and analyzing the competition, defining the website's goals and features, designing the user interface and experience.

V. RESULT AND DISCUSSION

The concept of our website successfully creates a virtual market that links students with nearby farmers and sellers so they can give them access to nutritious and fresh food. Students may simply browse and place orders from a number of meal alternatives accessible in their neighborhood thanks to the website's user-friendly interface. Our website encourages sustainable agricultural practices and supports neighborhood businesses by linking students with local merchants. Additionally, by connecting students with local vendors, the website promotes healthy and sustainable eating habits, which can have long-term benefits for both individuals and the environment.[21-25]

The home page (Fig.3) contains links for contact page, login page as shown in Fig 5, menu page and cart.

The menu page (Fig.4) contains various categories for milk, fruits, vegetables, and snacks. The user gets an overall idea of categories and items available

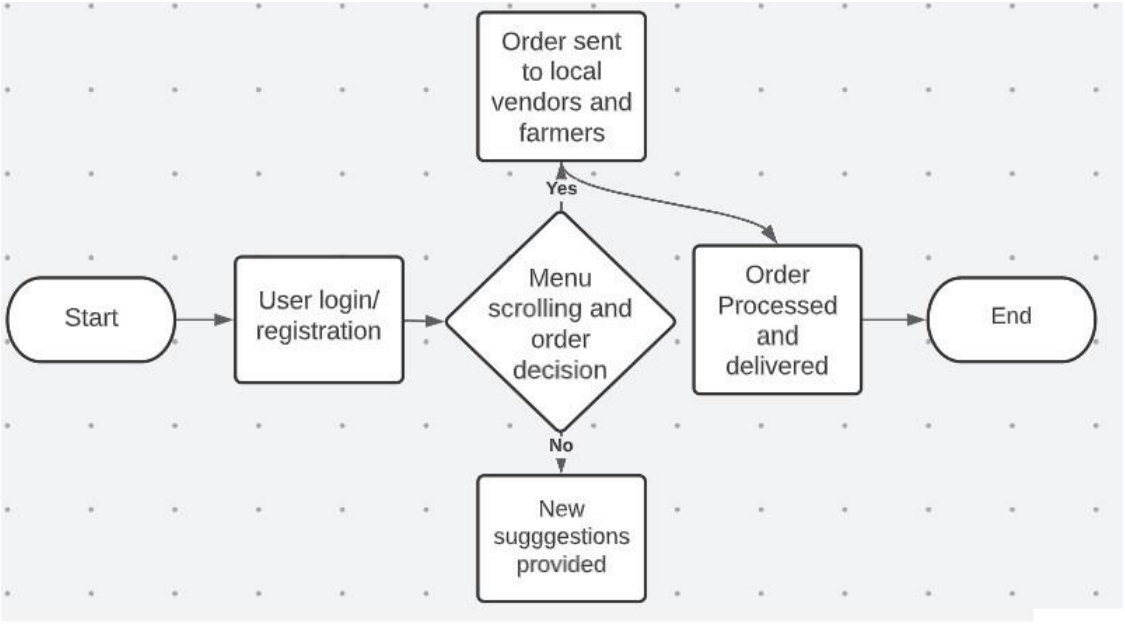

Fig. 1. Flowchart containing steps for implementation

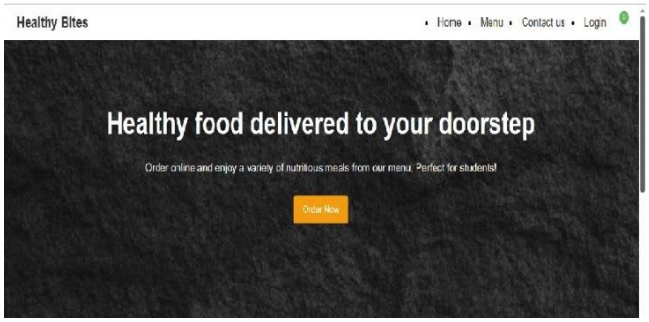

Fig. 2. Home Page

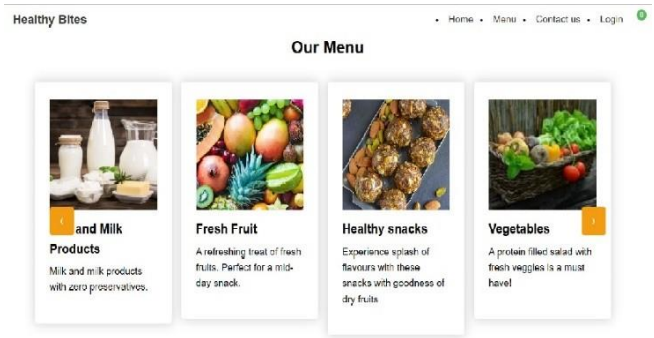

Fig. 3. Home Page

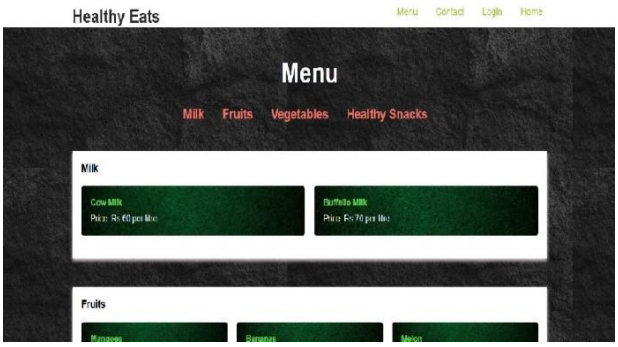

Fig. 4.

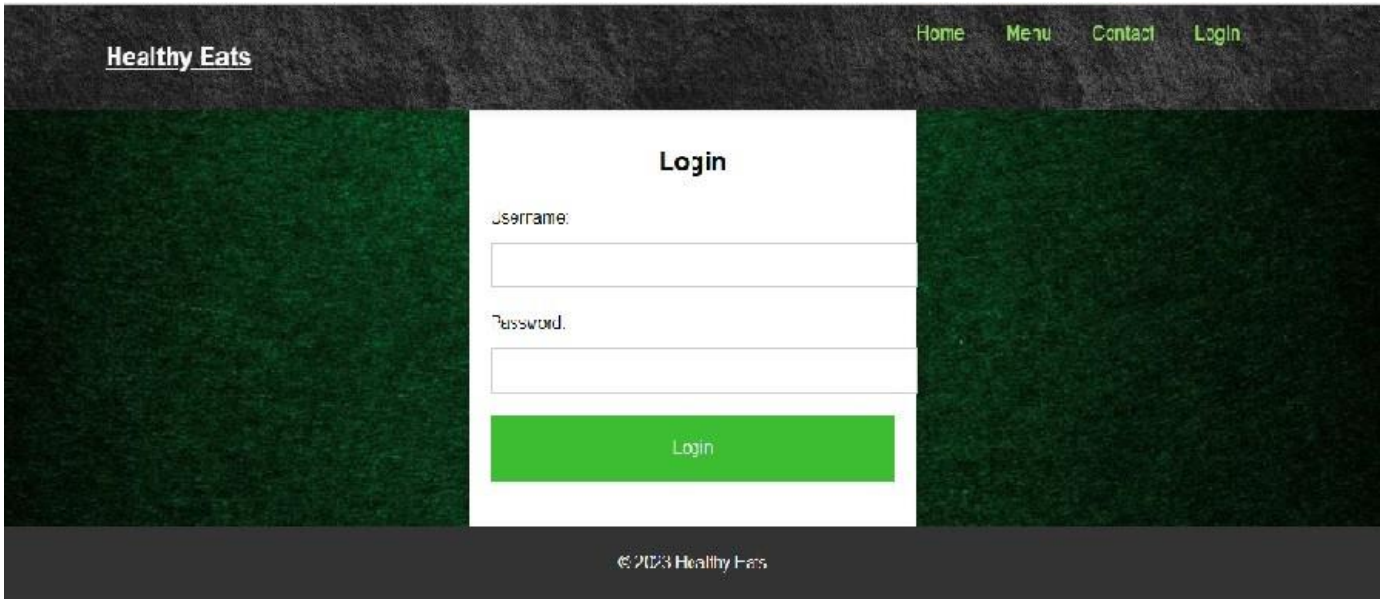

Fig. 5. Login Page

VI. CONCLUSION

The concept of a delivery system is created that provide students with healthy meal options by collaborating with local vendors and farmers. For young people's health and wellbeing, the growth of delivery system that offer healthy food to students is a necessary. These websites offer students a quick and economical option to get wholesome meals without having to leave campus or spend a lot of time in the kitchen. These websites provide students the power to make healthier decisions and form lifelong eating habits by providing a wide variety of healthy options and tailoring meals to particular dietary needs. There are still issues that need to be resolved, such as making sure that healthy food is inexpensive and available to all students, regardless of their socioeconomic situation. Students must also be taught the value of healthy eating, and they must be given the instruments and resources necessary to make wise dietary decisions. The supply of healthy meals to students has the potential to completely alter how we see nutrition and health. These facilities contribute to

the development of a younger generation that is healthier and happier by combining convenience, cost, and nutrition. It is a social responsibility to encourage and support these programs so that we can give our students and communities a better, healthier future.

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