

Code to Cuisine: CUMATO -A Web Driven Website for Modern Food Ordering Services

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Abstract—With the growing digitalization across the world, development using new cutting-edge technologies have inspired humans to perform actions on their own convenience. In this new era of internet, every information is available on one's fingertips. This project aims at the development of a dynamic website operating on new emerging technologies, including HTML, CSS, JavaScript for frontend development and PHP for backend development, altogether to create an interactive platform for restaurants to showcase their current trends and themes and enlighten the customers with the same. The website showcases vital restaurant information such as its name, contact details, and an appealing menu, empowering customers to accessibly place online orders and to get aware of the recent trends, themes, and offers established on the items.

Keywords—dynamic website, food ordering website

I. INTRODUCTION

With the growing steadiness in the environment and surrounding, the need for convenient and contactless dining possibilities has also increased. It gives technology an opportunity to develop and reform the outdated food ordering system into a more friendly and dynamic approach.

There is a list of problems faced by the restaurant owners but the most necessary one is the absence of an online existence. Due to this absence:

- There is a limited market reach.
- There is a lack of adaption to technological trends which may not reach the expectation of the tech enthusiast customers.

Digitalization and technology are together helping transforming the outdated methods and making humans perform actions on their own convenience. The outdated dining experience has been updated by the availability of online food ordering and delivery services. Among the heaps of platforms that compete in market, CUMATO website shines as a great contender because of its user friendliness and responsiveness as it helps customers to connect to a great variety of restaurants and cuisines near them with just a click of a button. It also helps to expand and strengthen the restaurant's customer base and modernize the ordering process with the attachment of web technologies. By creating a website:

1) *There will be a hype in revenue*: Displaying the details online will help to reach bigger audience which will ultimately help in increment of sales and revenue.

2) *Boost in customer experience*: Providing an online platform which displays the menus, prices, offers eventually provides convenience to customers in ordering the food.

3) *Competitive Advantage*: Staying updated with technology and trends, not only gives a good impression but also gives the restaurant a competitive advantage in the market.

4) *Efficiency*: The customers will be able to search various eateries on one platform rather than surfing various sites and platforms for one dish which will help them enhance their decision making and reduce their search time.

In this research paper, we explore the various features, advantages, need and impact of CUMATO, a food ordering website that showcases the reality of the transformation in the dining system. We wish to provide an insight into the innovative approach to food search and delivery using the tools of digitalization and technology.

Through a detailed analysis of CUMATO's strengths, challenges, and possible upcoming trajectories, this paper attempts to impart an in depth understanding of the dynamic flexibility between technology and the food industry. As we walk in through an era where dining at home is as simple as a few clicks, it becomes essential to realize the ongoing reflective changes and the consequences for all those involved.

II. LITERATURE REVIEW

When Internet was not an existent thing, phone calls and printed menus were the restricted options for ordering food and an urge to explore the food options, the customer need to make a travel to restaurants in order to collect information for the menus of various restaurants which was a tedious task which ultimately resulted in losing interest of going out for dining.

With the introduction of internet and the growth of Grubhub and Seamless in the early 2000s, the food ordering trend began to flourish but had a major disadvantage of having few restaurant choices. This drawback gradually was overcome by the substantial growth of the e-commerce industry in mid 2000s, which not only shifted the demand towards online

shopping and delivery for various products but also made food a part of its transformation. The introduction of mobile apps and smartphones in early 2010s hyped the food delivery concept and competition it brought along increased its growth.

With the hit of the pandemic, COVID-19, online food ordering became the only choice as contactless shopping and delivery became mandatory. Research by Shiu-Li et.al., 2023, praised the implementation of online food delivery services as it helped in improving the performance of the restaurants financially as well as non-financially. These services acted as a brand promotion of their restaurants which helped in increasing the customer base.

Though there are ample of advantages of using online food ordering sites, there still exist some challenges which needs to be tackled. Research by Gavilan et.al., 2021, showed that restaurants and restaurateurs need to modify, update, pivot and innovate their operations in order to meet the changing customer demands. Natrajan et.al. 2019 in their research discovered that consumer perception marks significance and disclosed that customers usually prefer incomparable low-price, high-quality food and fast delivery. Lau Teck Chai and David, 2019 suggested in their paper that convenience, ease of use and customer satisfaction are some key factors which the customer looks for.

With the growing advancement in technology there lies a possibility that the mentioned challenges by the researchers can be eradicated and the customers can take complete benefit of the online food ordering and delivery system.

The features which are evaluated from the literature and need to consider while developing the website are:

- *Determine User Needs and Objectives:*
Start with comprehending the needs, objectives, and preferences of the target consumers. reviewing consumer behavior.
- *Establish Key Metrics:*
Including important performance indicators that support the objectives of the website. Search accuracy and responsiveness are examples of metrics.
- *Feature Database:*
Making an exhaustive inventory of every feature that is currently present on the website and classifying it as core, auxiliary, and experimental features.
- *Gathering user opinions:*
Assembling consumer feedback from a range of sources, such as user reviews, polls, and support requests. heeding criticism and praise of the features as they are being used.
- *Technical Suitability:*
Determining whether or not each feature can be implemented or maintained technically. Some features might require more resources or be more complicated than others.
- *Iteration and Monitoring:*
After implementing new features or changes, continually monitor their impact on user metrics and satisfaction. Be ready to iterate and adjust the feature set as needed.
- *Documentation:*

Properly document the selected features, their objectives, and the reasons for their selection. This documentation helps with transparency and team communication.

III. METHODOLOGY

While designing the website, several design constraints are considered. Some of these include:

- *Cross-Browser Compatibility:* For the website to be feasible, it needs to be compatible with browsers such as Chrome, Firefox, and Internet Explorer. To make it compatible thorough testing and improvisation in code need to ensure for consistent performance and attractive appearance of the website.
- *Mobile Responsiveness:* The website should be designed as such that it should be flexible to different screen sizes and devices like smartphones, tablets, laptops and desktops without compromising the usability and functionality of the website.
- *Data Security and Privacy:* The website should be able to handle sensitive user data by implementing strong security measures and data protection laws.
- *Database Integration:* Since the website is using PHP, the database system should be efficient, secure, and scalable. This includes considerations for data retrieval and storage.
- *Scalability:* Plan for the website to handle growth in terms of users, data, and content. Scalability constraints will influence the choice of infrastructure and database design.
- *Performance Optimization:* Optimize the website's performance to ensure fast page loading times. Minimize HTTP requests, use efficient coding practices, and optimize images and other assets.
- *Content Management:* Consider the ease of content management and updating. If the website includes user-generated content, implement content moderation and reporting mechanisms.
- *Design Consistency:* Maintain a consistent and user-friendly design across all pages of the website. Ensure that the layout, color scheme, and typography are consistent, providing a seamless user experience.

In the span of developing the website, a mixed-method research design was chosen which included both quantitative and qualitative approaches to determine the level of customer satisfaction and the potential of the food ordering website. A sample of 150 participants aged 18-45 were taken from various demographic backgrounds which reviewed their experience via online platforms and social media channels. A well-designed online survey was conducted to gather quantitative data to learn about level of customer satisfaction. Likert-scale questions were asked which were related to website's usability, responsiveness, order accuracy, menu representation and overall satisfaction. Participants were required to rate on a scale of 1 to 5, ranging from 1 which represents bad experience to 5 which represents great experience. Some descriptive questions were also a part of the survey which included open ended questions to get the understanding of the challenges faced by

the customers, feedbacks and suggestions for improvement of the website so that the website developed should be as per customer needs and demands. Website usability, responsiveness, order of accuracy, menu representation are independent variables whereas user satisfaction of the food ordering website is

A. Components of the website

1) *Home page*: The home page of the website is the welcome page that includes the login and signup page, the navigation bar elements, the search bar and few banners including the titles for options.

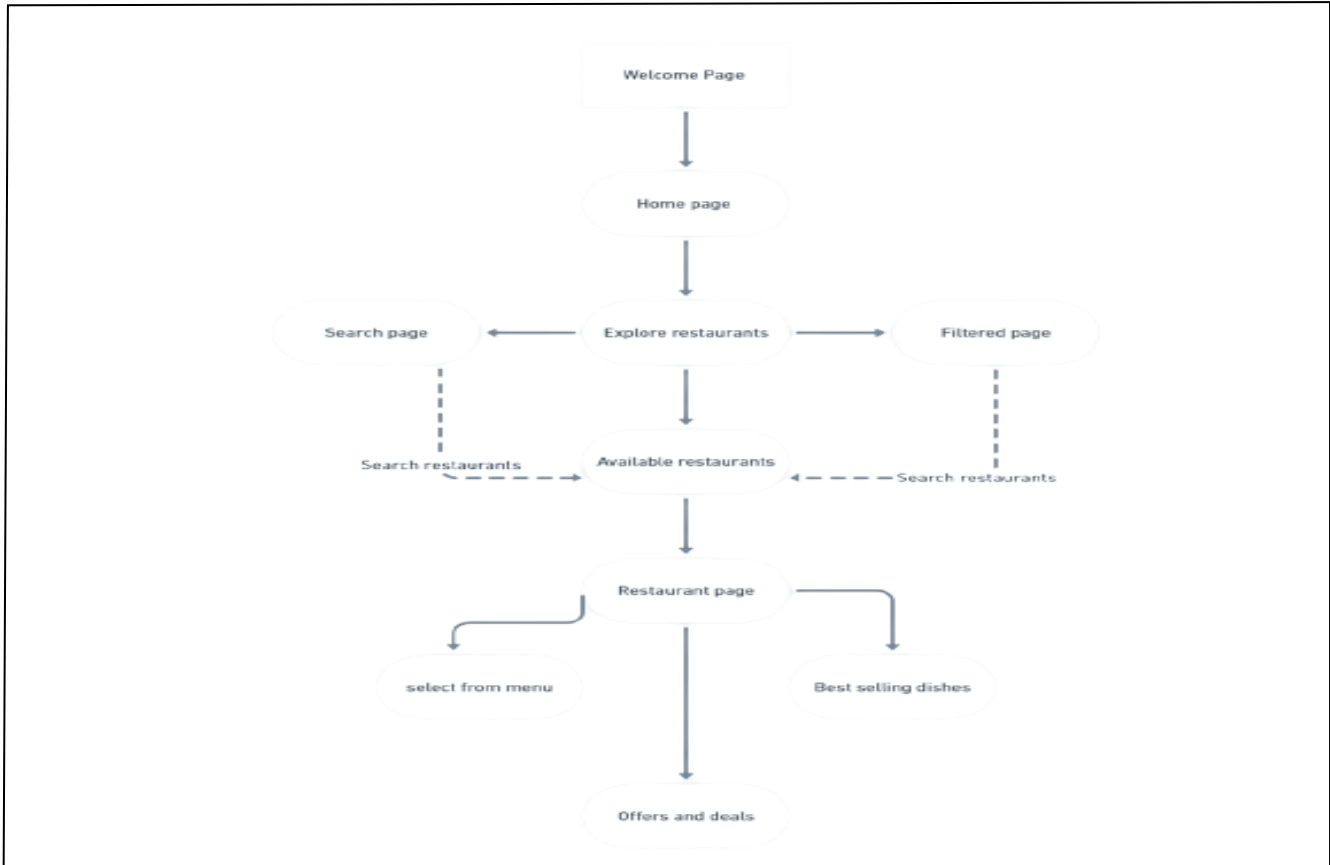


Fig.1: flow of the website with respect to user's point of view

considered as the dependent variable. Usability was calculated by the ease of access, ease of navigation and clarity of information. Order accuracy, menu representation was detected by user responses and experiences.

While the development of the website low usage features which act as a clutter on the interface and are less user - friendly were removed to maintain the consistency of the website.

To provide security and imply data protection, the user registration and authentication page needs to be developed with less complex appearance. The search algorithms should be modified to improve accuracy, relevance, speed and addressing performance constraints. Website's screen needs to be flexible so that it can be compatible with various screen devices.

The website is decided to be designed using the frontend technologies including hypertext markup language, cascading style sheets and JavaScript and using backend technology, Hypertext preprocessor, the database management is handled.

2) *Login page*: The login page is the page where the user data is entered and is stored in the database.

3) *Search bar*: The search bar's fundamental functionality is to provide search accuracy to customers with the inclusion of filters for the ease of search.

4) *Collections*: These are the banners that showcase the trending meals of the week, the offers and discounts, new additions in the menus offered by the restaurants.

5) *User guide*: It helps the customers to understand the functioning of the website. It provides step by step guide for customers to navigate the website.

IV. CONCLUSION

While developing the website, various inferences and perceptions were considered which at the long run improved the insights into the project's goals, scope and results.

a) *Attaining Project Goals*: A finite set of goals and objectives led the progress of the website, including responsiveness, better design interface, and ease of use.

b) *User-Centric Approach*: The user-centric approach was set as top priority throughout the progress state. User

involvement and usability testing played an important role in determining the structure and features of the website.

c) *Design and Aesthetics*: The website's graphic design and appearance were considerably chosen to balance the branding and attract the intended users. User feedback is kept as a foremost important element of the website which plays a crucial role in the improvisation of the website.

d) *Functionality and Performance*: To ensure good user experience, the website's functionality and performance experienced wide-ranging testing. The glitches were fixed at a fast pace, which led to a creation of a dependable and responsive website.

V. FUTURE WORK

Features such as themes, user interface can be customized in future as per the market demands and trends for better performance and consistency.

Scalability, accessibility are the two domains in which the more development is required.

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