SMART TREAT JUNCTION

Shweta Chaku[1], Arnav Tyagi[2], Arsh Ali[3], Aryan Jain[4], Ayush Singh[5]

[1]Assistant professor, Dept. Of Computer Science & Engineering, IPEC, Ghaziabad, India
[2]Student VIII SEM, B.Tech, Computer Science & Engineering, IPEC, Ghaziabad, India
[3]Student VIII SEM, B.Tech, Computer Science & Engineering, IPEC, Ghaziabad, India
[4]Student VIII SEM, B.Tech, Computer Science & Engineering, IPEC, Ghaziabad, India
[5]Student VIII SEM, B.Tech, Computer Science & Engineering, IPEC, Ghaziabad, India
---***---

Abstract – Online food ordering system is the primary and most easy way to order a food. An Online Food Ordering System is proposed and meant to simplifies the food ordering service. The proposed system shows an user interface (Home page) and update the menu with all available options so that it eases the customer work. We are also following the COVID 19 precautions and protocols. The order confirmation is sent to the customer. The order is placed in the queue and updated in the database and returned in real time. This system assists the staff to go through the orders in real time and process it efficiently with minimal errors. We are also offering special services like Tiffin service, Diet food by maintaining hygienic and sanitation all around.

Key words – Smart Treat Junction

INTRODUCTION –

An online food menu is set up by the proposed food ordering system and as per their will customers can easily place the order. Also, customers can easily track the orders within the food menu. To get the services efficiently the users of the system provides various facilities. Restaurants as well as other facility is considered by our system for the customers. The system will be designed to avoid users doing fatal errors where users can change their own profile also where users can track their food items through GPS and where users can provide feedback and recommendations to Restaurants.

With the advancement of new technologies especially mobile devices has made food ordering via online applications become more popular. As we can see that internet usage is increasing rapidly, everything we can get online. Online payments methods (i.e., UPI, PAYTM, GPAY) makes our work easy and handy for us. Considering the current scenario of pandemic, online food ordering system is the best way to order the food at your doorstep and most secure way too. Our system will provide all the basic details of the food and who's delivering it. Following all the COVID-19 protocols, we are delivering food to the customer.

LITERATURE REVIEW –

This food ordering system is introduced to retain the traces of customer's orders nattily. Primarily, they used to implement a food ordering system for various type of eatery in which customer would place and order custom food just by a click using the web apps especially made for devices like PCs, mobile & tablets.

The front end for this ordering system is developed by making use of HTML, CSS, Bootstrap and for the backend development, we have used NodeJS and Express JS while the database used for the required purpose is MongoDB.

Different case studies have spotlighted the issues faced while emplacing a restaurant. Few problems amongst them were found during the study in the existing procedure are listed below:

- To submit the client's requests who are ordering through the restaurants, they look at the menu things accessible in the eatery, and picks the food required, and then, at that point, places the order and afterward do the payments. This technique requests manual work and time with respect to the user.
- When the user needs place the order over the telephone, they can't see the actual duplicate of the menu accessible in the eatery, this likewise comes up short on verification that the order was placed for the suitable menu.
- Each café/ restaurant needs somebody or the other to think about the order request in personal or over telephone, to offer the user a rich deal and experience and even the ways of approving the payments.

There was an endeavor to plan and execution of computerized dining in eateries/ restaurants utilizing web innovation. This framework was a fundamental unique data set utility framework which brings all data from a unified database. This application worked on the exactness and proficiency of restaurants as well as human blunders. Prior disadvantages of automated food ordering frameworks were overwhelmed by this system and it requires an onetime venture for electronic gadgets.

Research work expects to plan and foster a remote food ordering system in the restaurant. Specialized tasks of Wireless Ordering System (WOS) including frameworks engineering, capacity, impediments and suggestions were introduced in this system. By giving more excellent customer assistance and lessening human mistakes to further develop the administration angle for restaurants, unavoidable application will be an important tool because of the great requests of handheld gadgets.

PROPOSED METHODOLOGY –

These days everyone is trying provide services and products online, which is convenient to both user and supplier. Today anyone can put their services and product online to be available to general consumers. This has led to a vast expansion of e-commerce website like amazon, flipkart etc. Building on this idea certain innovative mind have built services to provide food to people at their doorsteps like Zomato, swiggy and many more.

Taking an inspiration from them we have built a well-functioning online food delivery web app which is accessible on mobile and desktop platforms. User can login and sign up using google and can start looking through the list of food. They can select the food they liked and add them to cart or if they changed their mind, they can edit it too. Once the user is ready to order they can proceed to provide their address details and payment method. After the payment method option is selected users will see a delivery status on their screen and information about the delivery person.

To improve the existing system of online food ordering system we have included new perks to attract more users, like providing food on a subscription basis and helping certain individuals like people who are covid patients and need proper diet or people going to gym, we can also add more categories to this app as per needed.
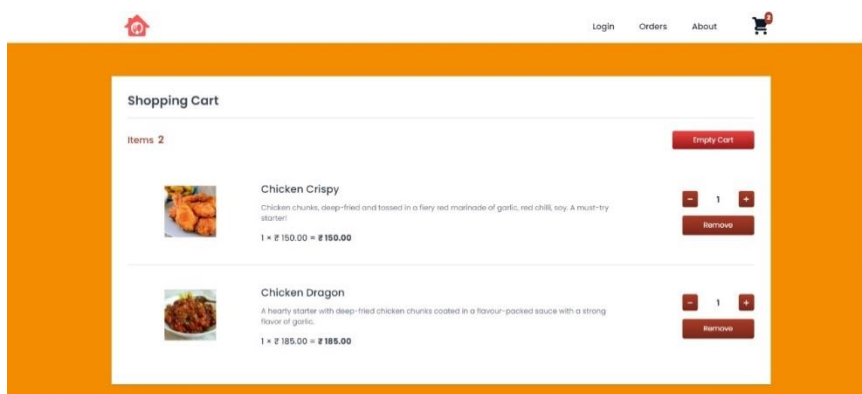
Also, we have added a feature of smart recommendation which will provide user with smart suggestion based on their recent orders. This will help user to quickly order the next time they chose to eat. This is achieved by merging machine learning with our app.
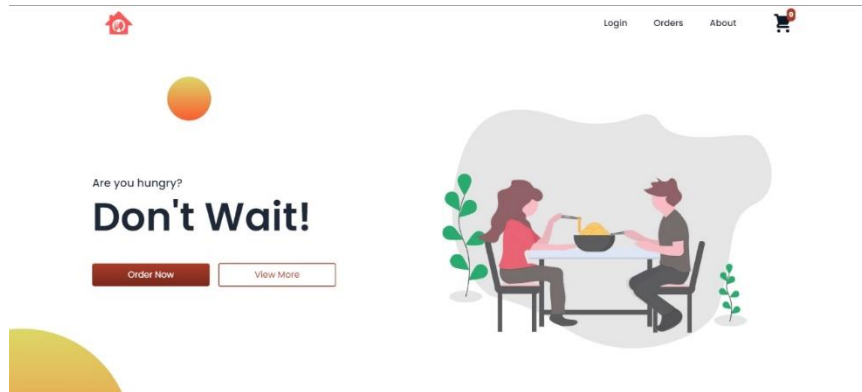
fig[1] HOMEPAGE
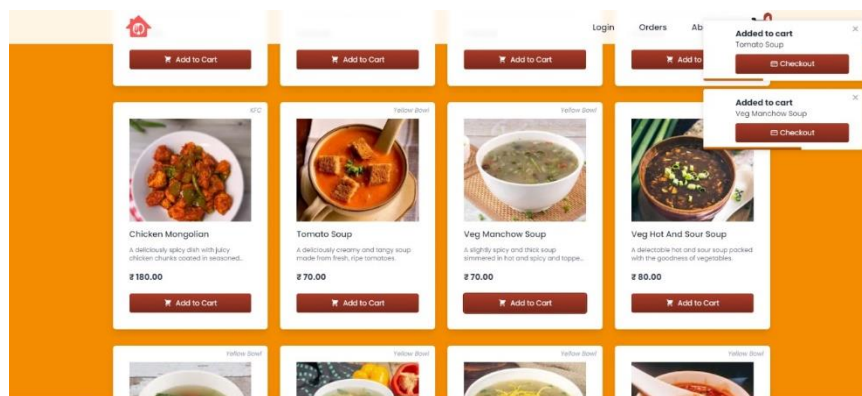
fig[2] FOOD LIST

fig[3] ORDER LIST

DEVELOPMENT AND DESIGN STAGES –

From designing the UI to completing the functions of our app we needed essential software and hardware to build our app. The process is broken down in further steps: -

• **Design Stage**: Using a well-known UI designer known as FIGMA we created our frontend design. Using VSCode we made the design into a working app using technologies like React.js framework, HTML, CSS and javascript. This was the first module of our app.

• **Backend Stage**: After completing the design and successfully creating a working frontend, we needed to build a backend to complete the functionalities of our app. This was done by using Node.js

and Express.js frameworks. This include creating login and signup API's, creating servers for our request and response messages, sending data to database.

•   **Connecting to database**: We have a used a NoSQL database here named MongoDB Atlas which is also a cloud storage which gave us the freedom to store the information send by our backend. To build the database schema we looked on the internet and found some useful information to create our own unique schema.

•   **Adding a payment gateway**: This included process to supply our app with proper and secure online payment gateway and to complete our process to deliver the product only when the user has successfully completed the payment method.

•   **Machine Learning Integration**: To provide user with fast selection of their food we included a machine learning feature to provide user with smart recommendation based on their current orders. We are using classification and clustering techniques which will collect related data to a user and provide a output.

TECHNOLOGIES USED IN THE PROJECT –

1.1 FRONT END

1. **HTML:-** (Hypertext Markup Language) is **the code that is used to structure a web page and its content**. For example, content could be structured within a set of paragraphs, a list of bulleted points, or using images and data tables.

   Uses of HTML

   • Data Entry support with HTML
   • Native APIs usage to enrich a website
   • Web document Creation
   • Client-side storage

2. **CSS:-** CSS describes how HTML elements are to be displayed on screen, paper, or in other media.

   Uses of CSS

   • CSS style definitions are saved in external CSS files, so it is possible to change the entire website by changing just one file.
   • CSS does not require the writing of HTML tag attributes every time. There is the writing of rule just once for a tag, which can be applied to all the occurrences of the corresponding tag. So using CSS, there is less code, which means faster downloading.
   • CSS provides more detailed attributes than plain HTML to define the look and feel of the website.

3. **JavaScript:-** JavaScript is a powerful programming language that can add interactivity to a website. It was invented by Brendan Eich (co-founder of the Mozilla project, the Mozilla Foundation, and the Mozilla Corporation).
   Uses of JavaScript
   • JavaScript is commonly used for creating web pages. It allows us to add dynamic behaviour to the webpage and add special effects to the webpage.

4. **React**:- React is a declarative, efficient, and flexible JavaScript library for building user interfaces. It lets you compose complex UIs from small and isolated pieces of code called "components". We'll get to the funny XML-like tags soon. We use components to tell React what we want to see on the screen.

Uses of React
- React is remarkably flexible
- React Has a Great Developer Experience
- React's API is very simple to learn.
- React uses the opposite approach. It uses HTML (JSX) inside JavaScript. I like this approach because here, you can deal with pure JavaScript and HTML.

1.2 BACK END

I. **NODEJS:-** Node.js is an open-source and cross-platform JavaScript runtime environment. It is a popular tool for almost any kind of project
Node.js runs the V8 JavaScript engine, the core of Google Chrome, outside of the browser. This allows Node.js to be very performant.

- Browser Games
- Chat Rooms
- Collecting Data
- Streaming
- Mean Stack
- Real-time Applications

II. **MongoDB Atlas:-**
MongoDB Atlas makes it easy to control access to your database. Your database instances are deployed in a unique Virtual Private Cloud (VPC) to ensure network isolation. Other security features include IP whitelisting or VPC Peering, always-on authentication, encryption at rest and encryption in transit, sophisticated role-based access management, and more.

1.3 MACHINE LEARNING:-

Machine Learning algorithms are generally categorized based upon the type of output variable and the type of problem that needs to be addressed. These algorithms are broadly divided into three types i.e. Regression, Clustering, and Classification. Regression and Classification are types of supervised learning algorithms while Clustering is a type of unsupervised algorithm.

- **Classification**

Classification is a type of supervised machine learning algorithm. For any given input, the classification algorithms help in the prediction of the class of the output variable. There can be multiple types of classifications like binary classification, multi-class classification, etc. It depends upon the number of classes in the output variable.

- **Clustering**

Clustering is a type of unsupervised machine learning algorithm. It is used to group data points having similar characteristics as clusters. Ideally, the data points in the same cluster should exhibit similar properties and the points in different clusters should be as dissimilar as possible.

RESULT –

The result of our framework application incorporates a Web-based application. Users can effectively arrange the food by utilizing the proposed framework. This system will help in decrease of work costs involved and furthermore diminishes the space expected to set up cafeterias in the confined region.

As it is a computerized framework, it is less likely to commit any errors. The clients can stay away from the long lines at the counter, with a sensible speed of execution and most extreme throughput.

CONCLUSION –

All of the major functions of our website are functional. If people know how to operate a smartphone or a laptop wide variety of people can use the application. Our website will solve various issues related to Tiffin service and Healthy meals for Fitness Enthusiasts and covid 19 patients

It can be concluded that based on the application. Users can order food easily by this system. All the info needed to order any kind of food is already provided by the system. Receiving orders and changing its data is possible through the application.

REFERENCES –

[1]. KirtiBhandge, TejaShinde, Dheeraj Ingale, Neeraj Solanki, ReshmaTotare," A Proposed System for Touchpad Based Food Ordering System Using Android Application", International Journal of Advanced Research in Computer Science Technology (IJARCST 2015).

[2]. T.DEEPA,"A proposed system for online food ordering system for web app and mobile application", Journal of Emerging Technologies and Innovative Research (JETIR 2018).

[3]. Abhishek Singh, Adithya R, Vaishnav Kanade, Prof. Salma Pathan," Implement a food ordering system using web based application and android application", International Research Journal of Engineering and Technology (IRJET 2018).