

Canteen Food Ordering and Inventory Management System

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Abstract - *Flask the board is a sort of business that serves individuals from one side of the planet to the other. Individuals feel more OK with a lot of varieties in the determination of the food and search for quick and proficient ways for their food requests in their bustling life. There are bunches of regions to be addressed for the ongoing circumstance in serving food in lodgings, eateries, and containers utilizing present-day advancements. Our concern exists in the space of the end client and Canteen manager. Notwithstanding, it is critical to deal with the unrefined components we really want to purchase for the café to limit the wastage of food. Thus, we add the stock framework alongside this food requesting framework that assists in further developing the container's sales. Usually, individuals need to go to the bottle and hang tight in lines for requesting food, and with the static menu, it is challenging for them to conclude what they need ahead of time requesting. With this web application clients request the food on the web and need not hang tight in that frame of mind for a significant time frame.*

Key Words: food request reservations, wastage of food, working on eatery deals.

1. INTRODUCTION

The flask food requesting and stock administration framework is created to give an answer for issues that little bottles face in everyday life. With this application, clients can see the rundown of food things in view of classes and request food on the web and the POS staff affirms the request and kitchen staff can convey it to the client in a proficient manner and significantly quicker. Thus, the framework planned in this task will empower clients to go on the web and submit a request and pay for their food. Administrator can see the total bits of knowledge of the request and will be capable track the flask's deals and other significant experiences in view of the report produced by our product.

The overall goal of this undertaking is to foster a dependable and advantageous container the executives; assessing its presentation and worthiness regarding ease of use and unwavering quality; working on the correspondence between the client and the server and limiting the hour of requesting and helping the Food Ordering System with stock following. The particular goal incorporates fostering a

framework that fulfills the client through speed conveyance; planning a framework that permits cafés to monitor the stock productively and to save experiences of their deals for working on their business in future.

2. LITERATURE SURVEY

Design of Zigbee Based Wireless Order System for Restaurants May-2014.

This undertaking gives a technique to further develop the request framework in eateries with the assistance of ZigBee technology. They planned a self-administration requesting hub including its product and equipment. The LCD screen shows food things for clients to enter their orders straightforwardly with the assistance of a keypad. The framework naturally finishes information getting, capacity, show, and investigation. It enjoys many benefits like incredible adaptability, versatility, and high speed. With slight adjustments, it tends to be utilized for the overwhelming majority different applications too.

Design of Intelligent Restaurant with a Touch Screen Based Menu Ordering System.

This Digital Restaurant framework conveys practically limitless adaptability in advancing supper and nibble options. This framework utilizes advances imaginatively in a cutting-edge eatery, for example, multi-contact LCD with Arduino super, RF module, data set and line following Robot to improve nature of administrations and to enhance clients' feasting experience. A line following robot is planned utilizing sensor worked engines to monitor the line way foreordained for dinner serving. PayPal is utilized for online installment.

Automated Restaurant Management System. Department of Electronics and Telecommunication, Vidyalkar Institute of Technology, Mumbai, India.

In this paper, they have proposed a mechanized café the board framework that computerizes the significant tasks of an eatery utilizing Zigbee innovation. ZigBee over IEEE 802.15.4 characterizes details for WPAN (LR-WPAN) to help low information rate, low power utilization, minimal expense, remote systems administration convention designated towards computerization and controller

applications. The general framework depends on Arduino. The initial segment of the framework utilizes Arduino Uno Atmega which is 328P family-based and XBee Series 2 radios through which the clients can submit their request. The second piece of the framework utilizes a transport line to serve the food to the clients. A bill is naturally created utilizing a java program when the client demands it.

Automatic Menu Ordering System Using Zigbee and Arm Processor.

The fundamental point in the current field is Automation, lessening Power utilization and furthermore diminishing the expense. The point is to substitute the customary pen and paper technique by the mechanized menu requesting framework to save the time consumed by the conventional menu requesting framework. They utilized ZigBee master and SQL Server information base to foster the programmed requesting framework. Because of this framework clients can undoubtedly arrange the food from the table. Likewise, the serving of food is more straightforward and serves on the early bird gets the worm premise. Likewise, the supervisor gets all the data of food material accessible after each request in the kitchen.

B.S. Sharath; Srisha; K.V. Shashidhar; Sagar S. Bharadwaj R.

The paper discusses the execution components of the independent cooking gadget, which cooks the dishes as indicated by the flavor of the clients. With computerized reasoning and customary Neural Network preparing calculations, the cooking system is altered for various clients. Their model backings nine distinct fixings, including vegetables and fluid fixings. With the assistance of the product, there is a more direct forecast and the board of their month-to-month items as indicated by the cooking style, taste, amount of the dishes cooked beforehand, and the timetable of the dishes to their time.

Customer Restaurant Choice: An Empirical Analysis of Restaurant Types and Eating-Out Occasions August-2020.

This paper plans to examine clients' apparent significance of key variables as per feasting events and eatery portions. Here the examination is around two kinds of exact proof in regards to clients' decision of eatery. In the first place, menu cost was clients' main concern in eatery choices for full-administration, fast relaxed, and speedy assistance cafés. Second, café clients appraised the significance level of eatery determination standards contrastingly as per eating-out events. The significance of menu cost was talked about.

A survey of writing on café menus: Specifying the administrative issues.

This concentrate on targets checking on the basic administrative issues of the menu and exhibiting the

calculated construction of menu the executives. The paper makes a conversation on the reasonable relations among menu and dinner experience. The calculated construction of menu the executives introduced in this paper permits a thorough comprehension of the menu and structures a hypothetical reason for future examination.

Classifying eateries to further develop convenience of eatery research Article distribution date: 11 July 2016.

This paper targets exploring existing café arrangements in the eatery the executive's field. The creators talk about intra-industry outcomes of the restricted utilization of perceived typologies and the need to direct the depiction of café setting in the writing to impart the inside and outside legitimacy of discoveries. Here the café is sorted from acknowledged typologies and content examination of titles, edited compositions, and system areas is utilized to look at three suggestions with respect to the normalization, defense, and productivity of eatery grouping in conferring eatery setting in distributed works.

Orderista - AI-based Food Ordering Application.

This proposed project depends on an AI-based cross-stage application that spotlights on mechanizing all the significant bottle functionalities. It empowers the client to enroll on the web, peruse and browse an E-menu card followed by submitting the request and getting affirmation after fruitful installment. With the assistance of this application, understudies and resources can arrange food in advance and can get it throughout the break to guarantee that the time spent in requesting and it is essentially as low as conceivable to gather the request. The application additionally docks in AI, which will assist the clients with getting individual suggestions and food things which are famous among others.

Foody - Smart Restaurant Management and Ordering System.

The Objective of this web-based application "Foody" is to address these lacks and offer proficient and precise types of assistance to the client, by giving extraordinary menus to every client thinking about their taste. This idea is carried out as a portable application utilizing the most recent IT ideas, for example, Business Intelligence, Data Mining, Predictive Analysis and Artificial Intelligence. This incorporates illustrations and 3D demonstrating that give existent actual data connected with food, for example, tones, measures and further client can see the elements of the supper as well as the accessible tables. The normal result of the examination is to foster a completely computerized café the board framework with the referenced highlights as well as to keep away from disarrays between orders, give a superior perspective on food and permit the client to pick the menu as per their desire for a base time.

An adaptable remote food requesting framework with Realtime client feedback.

In this paper, they examined the plan and execution of an adjustable remote food requesting framework with continuous client input for a café (CWOS-RTF). The CWOS-RTF empowers café proprietors to handily set up the framework in a remote climate and update menu introductions. Advanced cells have been coordinated in the CWOS-RTF execution to work with ongoing correspondence between eatery proprietors and clients. A starter testing recommends that the CWOS-RTF can possibly dispose of the limits of existing food requesting frameworks.

Automated Food Ordering System with Interactive User Interface approach.

This paper makes sense of about An Automated Food Ordering System utilizing Interactive User Interface approach was made to further develop the ongoing food requesting framework. The request is from a straight client to the kitchen. A PC screen will be put on each table for clients to make their request. Request will be shipped off the server in the kitchen. Food will be conveyed to clients utilizing a robot controlled by means of remote transmitter.

Formal Specification for Online Food Ordering System Using Z Language.

This paper lessens the issues of uncertainty levels for the Software Requirements Specification (SRS) utilizing formal strategies. The outcome shows the adequacy in particulars through Z language. The Z particular is made for the business use of online food requesting frameworks to further develop the request subtleties precision and productivity. The partner needs for a food requesting framework are accumulated from the undertaking objective. The framework is planned utilizing Unified Modeling Language (UML) delineation of purpose case outlines. The detail is made for the framework conduct to eliminate the equivocality.

Canteen the board framework utilizing the E-wallet. ISSN No: - 2456-2165 Volume 6, Issue 4, April - 2021.

In this paper, the machine will take requests and show them on screens in the kitchen through web-based demands. They constructed a web application to put orders ahead of time. To build the solicitation, a request Id is provided to send the request to the assistance counter. The request is sent without a moment's delay. Installments might be made in real money or at the counter through an e-wallet.

Cloud Based Canteen Management System.

This paper proposes a discussion for both container as well as cloud clients to helpfully robotize the whole thing more. There is no equipment utilized anyway Cloud Computing innovation needs establishments. Comparable to the

ownership of explicit parts, distributed storage is exceptionally practical. The work area site is facilitated on the cloud and the versatile application. The administration of a flask business should be possible proficiently generally speaking. Just once is information move to the cloud conceivable. The entire business of the container is smoothed out. The other methodology involves paying with an insightful card which just worries installments.

In-Time Billing Process for Canteen Management System.

Canteen administrator shows in-time installment for the flask the executive's gadget that the clients that can be understudies or laborers and representatives of an association will gather a RFID. It's a proficient framework. For individuals who go to the container much of the time, it tends to be truly useful consistently. It is at this point excessive for you to convey the cash. They might change the entire effort of the flask totally with this gadget.

Mobile Application for Canteen Automation System Using Android March 2020.

This paper surveys how to enroll on the web, read and select the food from an E-menu card and the client needs to utilize an android application. The outcome in the wake of picking the food from the E-menu card will straightforwardly show on the screen close to the culinary specialist. The contraption is a combination of android as pleasantly as a web application. The standardized tag framework is utilized for understanding items. By the use of this application crafted by the server is diminished.

Online Food Ordering System for College Canteen.

The point of this paper is online food requesting for the school flask is to robotize the ongoing manual framework with the assistance of electronic hardware and undeniable PC programming. Fundamentally, this paper depicts how to deal with an astounding show and higher administrations for the clients. In this proposed framework they utilized Raspberry Pi regulator, speedy reaction (QR) code scanner, fluid gem show (LCD), and Wi-Fi. Raspberry Pi is the super controlling component in this paper.

Online Canteen System

The undertaking on the web container framework assists the clients with booking their food prior. The clients need to book their food on the e-menu card. When they book their food, the request will be shipped off the gourmet expert for setting it up. In the proposed framework the installment is on the web and the e-menu will be accessible for the client. This will help in showing the course from adjusting materials to fostering a web-based climate. This venture gets all necessities one spot that benefits both the client and the container proprietor sagaciously.

Food and Restaurants: A Review of the Literature and Exploratory Observations of Restaurant Pivots in LA in the Time of COVID-19 2021.

This MA project comprises of: 1) a survey of the writing on the investigation of food and eateries inside humanities, as well as in the sociologies all the more extensively, and 2) an assortment of fundamental perceptions in regards to the changes occurring inside Los Angeles' eatery industry because of COVID-19. Instead of endeavor to cover the whole broadness of the human studies of food, It principally considers works that attention on the emblematic limits of food as they connect with different elements of character, the faculties, and memory.

Supply chain and stock administration in the food business: A contextual investigation. Rakesh Kumar Research Scholar, OPJS University, Churu, Rajasthan, India 2017.

In this proposed work, a determining model made with a variable examination device and a gauging instrument is proposed. Through AHP examining strategies, the limitations could be tracked down through reviewing specialists. The overview results then, at that point, tried consecutive example examination to figure the forthcoming materials in a stock. This work was reviewed by specialists and found that the amount of supplied food varieties, the ongoing place of info & output food things as well as the information and result recurrence of similar food things are three significant things of a food handling and circulation firm.

3. TOOLS USED

Web application implementation is made using PHP and for the backend MYSQL is used. Testing of application is done using XAMPP server in the localhost. Environment used to build it is the VSCODE editor.

4. PROPOSED WORK

The point of this proposed framework is to foster programming with further developed administration offices for a bottle. The framework gives extraordinary productivity and lessens the handling time. It means to be more intelligent and easier to understand. One significant point is to fabricate a framework that gives legitimate experiences on the business chart and tracks the stock.

4.1 User Module

It begins with the client entering his/her certifications. Whenever that has been confirmed, the client can submit a request determining the food thing and amount of the food required. Presently we get a window that shows the bill with a request number. When the client finishes his/her request, they are diverted to the installment window where the all-out cost is shown and the client can choose the installment

strategy for their decision and afterward the client receives a message of affirmation of request.

4.2 Admin Module

Presently administrator can enter the administrator accreditations (email ID and secret word). When he/she enters the administrator entry, administrator gets the experiences about the deals and choice of adding food, erasing food or refreshing food. Notwithstanding this the administrator can see the stock administration framework and in light of the report he/she can arrange the natural substance on needs. Administrator handles the total framework including the retail location and kitchen module.

4.3 Point of sales module

Retail location staff can login with their qualifications. POS staff can see the internet-based orders and affirm the request. On other hand they can accept the disconnected requests also. Retail location staff will reserve the options to check the installments made and furthermore the affirmation of orders.

4.4 Kitchen staff module

Kitchen staff will actually want to see the request with the request id and the food things list which is affirmed by the retail location staff.

5. METHODOLOGY FLOW DIAGRAM

5.1 Admin

- Manage all the activities of the users and staff.
- Manage the food order list.
- View the generated report and make decisions based on the report.
- Manage the inventory system.

5.2 User

- View available food items in the list.
- Select the food items needed.
- View the billing.
- Order the food items.

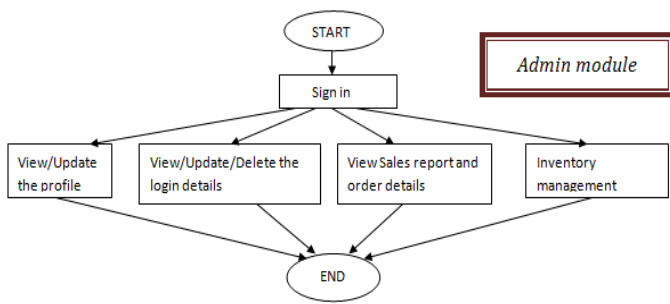


Fig -1: Admin Module

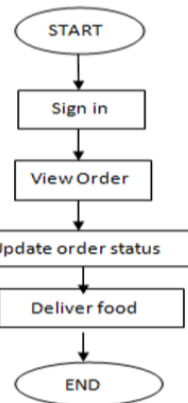


Fig -4: Kitchen Module

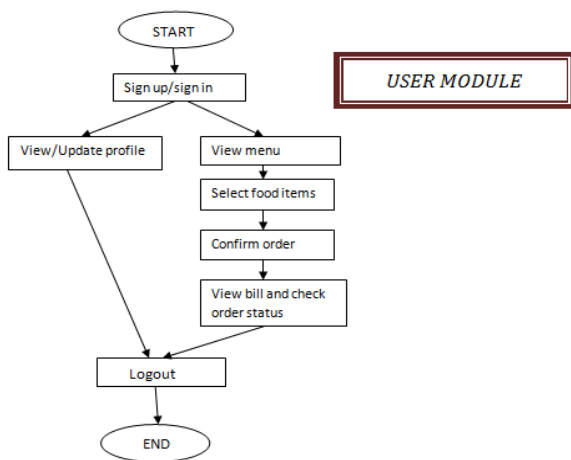


Fig -2: User Module

5.4 Kitchen Staff

- View the order
- Update the ingredient list

5.5 Inventory

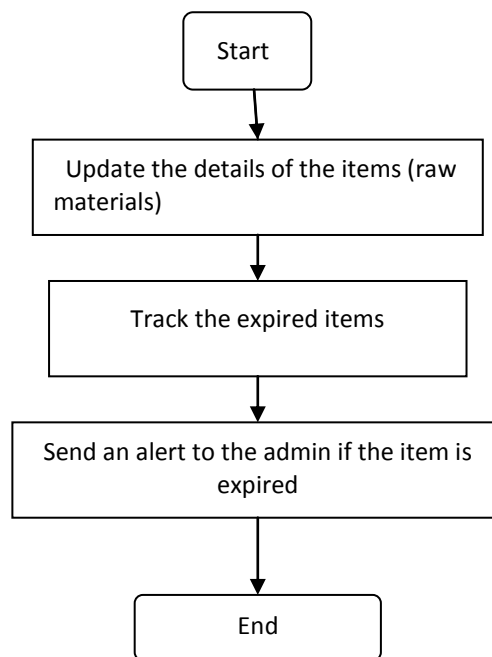


Fig -5: Inventory Flow}

5.3 POS Staff

- Take order (online and offline)
- Accept the payment and confirm the order.
- Update the status of the order.

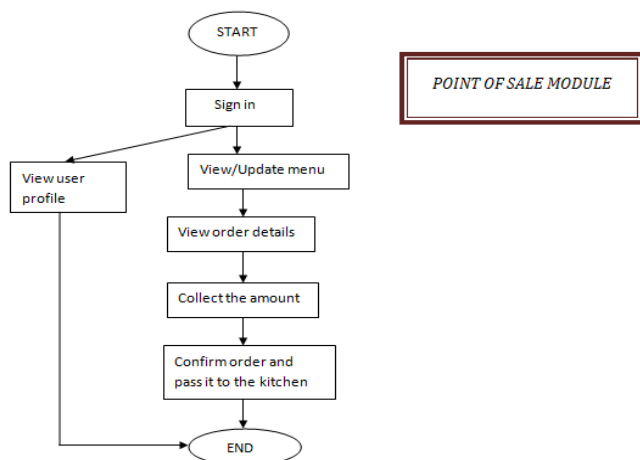


Fig -3: Point of Sale Module

3. CONCLUSION

The primary goal of an online meal ordering system is to automate an existing manual system using advanced computerized software so that vital data may be retained for extended periods of time with simple access and manipulation. With proper credentials, the registered user can access the account. The user may browse the food products by category, and there are cart and online payment methods available. Users may keep track of their orders by

looking at the meal specifics. Admins may manage functionality such as adding new food items, editing/deleting food items, and enabling/disabling food items based on season and availability in the Online Food Ordering System. Admins have the ability to see order information and adjust the status of food deliveries.

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BIOGRAPHIES

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He is a self-confident and enthusiastic person who helps students to improve high achievements in academics. He has moved from Industry to Academia. He has completed his M. Tech (Information Technology) from B.S. Abdur Rahman University, Chennai. He has worked as a Team Lead in domain of Mobile Application Development for more than 5 years and also has the teaching experience for more 3 years. He has also conducted many Workshops, Value Added Programs, STTP, FDP on Mobile Apps Development for various Universities and Institutions like VIT – Vellore, B.S. Abdur Rahman Crescent Institute of Science and Technology – Chennai, HKBK College -Bangalore.



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