

Online Vendor Meal Service

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Abstract— Online ordering meals is in recent years with the development of network technology, a new form of dining. Although the online ordering system has entered people's lives, but are not mature enough, still has great room for development. Therefore study how to marketing online ordering system is a very necessary research. In our project, from the marketing to analysis the online order meals system to find the appeared problems in the rapid development. The proposed system here is Vendor module by which the we are trying to aggregate the mess out there at particular location area make them operate online and provide them a common android application platform. Just to increase the customer base for a particular mess, and increase in total revenue .Vendor Module able to display menu, all order. Under the service type, the list of orders placed by customers are visible to the vendor. Feed menu section will allow vendor to add his available products to his service. Vendor can fill the food quantity, items, price and if any notice can added. Also vendor will allow to keep his food service ON/OFF. Provides flexibility to customers to choose in between variety of food from number of mess available online.

Keywords: Vendor Meal Service, Feed Menu, Order, Mod of Payment, Feedback, Average Rating, Android Application

I. INTRODUCTION

India's online food market is yet in developing stage, Famous and big restaurants are listed and registered online, partnering with online food order and delivery giants like zomato, foodpanda, swiggy etc. But when it comes to the small-scale and household businesses like mess, the picture is different, specially in rural areas, mess operates completely offline! The person there literally doesn't has an option other than to reach at particular mess and have a lunch or dinner there. So he/she would just have to compromise with the choices available. Second thing about mess, yeah they aren't amused with their business. Just the reach at customer and in expected revenue, they are finding their limitations there. And our proposed system overcomes these challenges.

We present the Vender Meal Service Android Application to increase growth in meals business by making online food delivery. When it comes to the small-scale and household businesses like mess, the picture is different, Mess operates completely offline! The person there literally doesnt has an option other than to reach at particular mess and have a lunch or dinner there every day. So he/she with the choices available.

Our system is Vendor meal service which contains three module orders, feed menu and settings. In that first Order module include The Order will be distributed in Todays Orders and All Orders. Where in Today Orders will have the

Lunch and Dinner sorting. According to the Lunch and Dinner sorting the service types Delivery or Boarding will get displayed. Under the service types, the list of orders placed by customers are visible to the vendor. Each order

should have components like Date, Order, Order Details, Amount or order, MOP(Mod Of Payment).As per the service types the vendor will serve the order to the customer and he will updated the same in application which will be logged to the server. Under All Orders vendor can see his future as well as past orders. In past orders all cancelled, failed, delivered and served orders will be displayed along with all required information. Future orders section will be tentative, however vendor can see the future orders also to manage the service in advance.

In second module, it includes Feed menu section will allow vendor to add his available products to his service. The food product will be added for lunch and dinner. The Lunch and Dinner menu will be added as per the date and calendar in advance for a week. Also vendor can fill the food quantity, items, price and if notes are added. The added products and details will be sent to service team immediately for review and on approval of the company service team the product will be available on customer portal. At last is Settings module that includes Vendor will be allowed to keep his food service ON/OFF.

II. MOTIVATION

Today's world is totally depend upon Internet. To achive growth in business then it must be make Online. There is lot of mess available in city but these mess operates completely offline! In our system here is Vendor module by which we are trying to aggregate the mess out there at particular location area make them operate online and provide them a common Andriod Application platform.

III. LITERATURE SURVEY

In order to analyze the background of current system, material surveys are mainly done, which help in detecting existing system flaws and the problems that can be solved are not problematic. Therefore, the following topics not only describe the background, but also offer problems and flaws to offer solutions and problems and motivate them to work on this project. Various research has been done on collective behavior. The next section analyzes different references that collectively. There are many system developed on restaurant management so to take an idea about all process we reviewed various papers on restaurant management, various algorithms and various android system which are in market.

In [1] Perception of product value, service value and redemption value has significant impact on buying behavior and moreover is positive. The outside of the online platform at the time of operation, can come on from the Angle of these variables in marketing, improve college students' perceived. The product value, service value and the redemption value, etc. Including the specific marketing strategy Rich products, provide good service, preferential activities, etc. The development of the Internet service for the life class

electricity brought infinite possible, each online take-out platform need to burden into, according to their own target groups for marketing, to understand their buying behavior in the platform, from the product, service, promotion, Price, convenience, etc., to strengthen the construction of the platform, improve the consumers' perceived value, positive influence on purchase behavior.

In [2] Sentiment analysis addresses these problems with new methods of classification. Foodoholic application rank various recipes available on different websites having same core ingredient based on reviews. This saves time of the users searching for the best recipe for a particular ingredient. The reviews for number of recipes from various different sites were fetched out and through Lexicon-based approach and they were analyzed. A bag of positive and negative words like delicious, bad etc. were used to rate the reviews based on word score comparison. Review that has the highest score was ranked at first position and so on. Thus an ordered list is prepared and given as output to the user. In future we will be comparing our ranking method with various other available methods.

In [3] Opinion mining comprises the area of natural language processing, computational linguistics and data mining. The problem of opinion mining is a research area in which many hard problems are to be addressed. The restaurant reviews on travels on the web are important information source, which help people in travel planning. This paper aims to implement an aspect based opinion miner for tourism domain such as restaurant reviews, which automatically finds important aspects and opinions of a restaurant by analyzing reviews, then create a sentiment profile of each restaurant, which can be further used to compare and select restaurants at a particular location by a traveller. This paper propose an approach, which use SentiWordNet, two word phrases and linguistic rules together for opinion orientation detection, with automatic acquisition of aspects.

In [4] proposes an algorithm for identifying the polarity of remarks. In the existing work polarity of remarks word by word in a sentence was not considered. This paper proposed algorithm for calculating collaborated opinion value. Various case studies are considered

Where in teachers give remark about a student and an average opinion value is calculated. The algorithm compares each word with sentiment and negation in the database. The algorithm is implemented on the basis of score assigned to each sentiment word in the database. The collaborated opinion is evaluated by analysing teachers remarks word by word and then implementing the algorithm proposed. The evaluated opinion value for a student can be utilized while giving marks to the student. Recommendation may be given to a student according to the collaborated opinion value.

In [5] a hybrid system of sentiment analysis to analyze tweets from twitter. This hybrid system has been weighed using twitter data related to cellular companies of Pakistan. It will be further evaluated by increasing data set to provide efficient/faster processing on big data. We were able to correctly detect the sentiment polarity of the tweets used in this research and these results were confirmed by human annotation of the same data. The framework which we have

proposed uses TFIDF technique with Bagging machine learning algorithm and is identifying the sentiments faster with improved F-scores, this proposed framework has also produced better results with boosting ML algorithm. We have also evaluated the accuracy of this system by comparing methods used by other researches in this area of research and found the performance of this framework is comparable with the other state of the art algorithms.

IV. GOALS & OBJECTIVES

- The main objective of this project is to develop an application which gives provision to the meals owners to flourish their business by uploading menus at no cost and will invariably lead to higher customer retention and acquisition rates.
- To develop a system that will surely satisfied customer service.
- To design a system able to accommodate huge amount of order at a time.
- To evaluate its performance and acceptability in term of security, user-friendliness, accuracy and reliability.
- To improve the communication between customer and owner it will minimize the time of ordering

V. PROBLEM DESCRIPTION

Indias online food market is yet in developing stage, Famous and big restaurants are listed and registered online, partnering with online food order and delivery giants like zomato, foodpanda, swiggy etc. But when it comes to the small-scale and household businesses like mess, the picture is different, specially in rural areas, mess operates completely offline! The person there literally doesn't has an option other than to reach at particular mess and have a lunch or dinner there. So he/she would just have to compromise with the choices available. Second thing about mess, yeah they aren't amused with their business. Just the reach at customer and in expected revenue, they are finding their limitations there. And our proposed system overcomes these challenges.

VI. PROPOSED SYSTEM

A. Architectural Design:

The architecture of 'Vender Meal Service Android Application' is shown in below. This contains three different module such as feedmenu, Order module, setting. This 3 module work as follows:

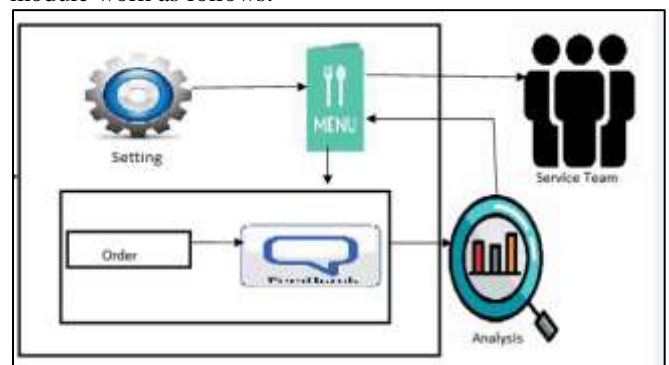


Fig. 1: System architecture

In our system we are going to build three modules as:

1) *Feed Menu Module:*

This module provides functionality for Vendor only. It will not be available to any other users of the system like Customers. Using a graphical interface, it will allow an Vendor to manage the menu that is displayed to users of the android application:

- 1) Add/update/delete food category to/from the menu.
- 2) Add /update/delete food item to/from the menu.
- 3) Update price for a given food item.
- 4) Update additional information (description, photo, etc.) for a given food item.

Before customers can actually use this application, functionality provided by this component will have to be configured first. Once the initial configuration is done, this will be the least likely used component as menu updates are mostly seasonal and do not occur frequently.

2) *Order Module:*

This is the simplest module. It is designed to be used only by Vendor, and provides the following functions:

- 1) Retrieve new orders from the database.
- 2) Display the orders in an easily readable, graphical way.
- 3) *Settings Module:*

At last is Settings module that includes Vendor will be allowed to keep his food service ON/OFF.

B. *System Module:*

Components	Description
Vender Information	Mess owner must register himself/herself through our application then only they are permitted to make their profile by uploading mess pictures, details, location, menu items with price, etc
Review and Rating	It is very important to give customer validation to mess service and encourage the good service to improve the standards and quality of mess services. Based on the review we rate the mess and are triggered to show top ranked mess service.
Payment Portal	Payment issued to users as a system of payment .It allows the cardholder to pay for goods and services based on the holder' promise to pay for them.

VII. ALGORITHM

Input : Number of Feedbacks.

Output : Average Rating Feedback Results

Flow of Algorithm :

- 1) Select Product.
- 2) Get number of star Rating.
- 3) Count star Rating individual.

1*count

2*count

3*count

4*count

5*count

- 4) Calculate Average Rating:

$$\text{Average rating} = \frac{\sum_{ni=1}^i ri}{\sum_{ni=1}^i vi}$$

- 5) Result Rating.

- 6) New Feedback goto Step (3).

Example:

General Formula

$$\text{Average rating} = \frac{\sum_{ni=1}^i ri}{\sum_{ni=1}^i vi}$$

Note

r: for possible star rating

v: for no of person vote gave to star rating

5 Star Average Rating Calculation

User Can vote the menu in 1,2,3,4,5 star

Suppose after vote group like

For 1 Star get 5 votes

For 2 Star get 3 votes

For 3 Star get 1 votes

For 4 Star get 17 votes

For 5 Star get 2 votes

Now I want to calculate average rating vote

$$\text{average rating} = \frac{(1*5+2*3+3*1+4*17+5*2)}{(5+3+1+17+2)}$$

$$= \frac{(5+6+3+68+10)}{28}$$

$$= 3.2$$

Another Example

Suppose after vote group like

For 1 Star get 1 votes

For 2 Star get 1 votes

For 3 Star get 1 votes

For 4 Star get 1 votes

For 5 Star get 1 votes

Now I want to calculate average rating vote

$$\text{average rating} = \frac{(1*1+2*1+3*1+4*1+5*1)}{(1+1+1+1+1)}$$

$$= \frac{15}{5}$$

$$= 3$$

VIII. METHODOLOGY

The methodology approach used for this application; is the top down approach is essentially the breaking down of a system to gain insight into its com-positional subsystems. In a top down approach an overview of the system is specified but not detailing any first level. The application provides intermediate platform to the vendors to place/add products with service types to avail them to the end user, check orders along with multiple payment and service methods.

IX. ADVANTAGES

- 1) Mobile application is convenient to carry.
- 2) Reduce the human efforts.
- 3) Reduce time-consuming phone orders and eliminate illegible fax orders
- 4) Greater customer satisfaction
- 5) Suitable for small scale food business integration.

X. CONCLUSION

The main aim of the project is to help the mess owner to improve the efficiency of managing, help the customer to purchase food easily. The Vendor can manage food Menu using Feedback analysis using Sentiment Analysis and handle food orders so on. On the public page, customer can view food information and purchase food or order food from the Android platform.

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