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E-FOODWORLD

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Abstract - ***E-Food World is an android based mobile application system that enables food service providers to use and operate everything which they want through a single touch. We are offering smart system which will simplifies and automate food providers and consumers chain. The proposed system will be design in such a way that it will solve issues at both the sides that is providers of food service as well as consumer of the service. Today peoples are moving to different cities for various purposes. They need some specific source of food. Person who shifted can't afford restaurants and hotels every day. It is also difficult for newly shifted person to find specific, good, nearby and affordable service. On the other hand food service providers (i.e. mess or Tiffin based service) faces many problems of maintaining record, informing customer in emergency cases, getting feedback from customer and many more. Keeping all scenarios in mind proposed system will customized according to need of user and service providers. (In this paper we used term mess as a parcel provider or tiffin provider).***

1. INTRODUCTION

1.1 Project Idea:

Idea behind project is to solve problem of people which they are facing when they shift to different city. The system is not only for user but also for provider who provides food service. This system is for making efficient communication between consumer and producer of the food system which will then leads to the ideal and effective system.

1.2 Motivation:

i) Basically the motivation come from restaurant management systems. There are various facilities provided so that the users of that system will get service effectively. So why not provider Mess will get those facilities. Again the idea comes that mostly mess users are person who are shifted for various reason in new cities. So they are interrelated.

ii) Again the motivation is increasing use of smart phones, so that any users of this system get all service on single click. 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 application which are in market.

2. LITERATURE SURVEY

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 application which are in market.

2.1 Zigbee based smart ordering system:

In this they are designed a system based on a part of restaurant management that is to manage order of customer using Zigbee wireless technology which will give advantage of mobility and ease of access. The system uses a small keypad to place orders and the order made by inserting the code on the keypad menu. This code comes along with the menu. The signal will be delivered to the order by the Zigbee technology, and it will automatically be displayed on the screen in the kitchen [1].

2.2 Real-Time Fully Automated Restaurant Management And Communication System RESTO:

This paper includes automation of restaurant management for or daring food, feedback, generating report etc. [2].

2.3 e-Restaurant:

It is also automated one based on making restaurant online [12]. In addition to this for finding nearest mess we gain information about various algorithms.
i) Finding Nearest Facility Location with Open Box Query using Geo-hashing and Map Reduce [8].
ii) Geometric Hashing: An Overview [9]. Also we survey to the different mess in different area of cities to get actual

requirements and to know their problems. iii) While surveying we observe that there are various kinds of problems faced by mess providers in terms of wastage, feedback, customers, and many more.

2.4 FoodPanda:

The concept is after giving input as area it will display all restaurants in within that area. But after reading some review we observe that there is one sided communication that is user interaction is not there, poor contact between Foodpanda and restaurant, customer cant cancel order given, waiting time is long, sometimes menu items not available, no remove button, no instant response, have to login again and Again, and many more.

2.5 Urbanspoon:

It is also for restaurant service. It also has some issues related to service provided

2.6 Eplcurious:

It is basically for recipes which are served to customers. All information which are related to recipes like ingredient, how to cook in step by step process is given.

2.7 Veg Out:

It is especially for vegetarian food. It displays food in alphabetical order.

2.8 FoodSpotting:

It is related to recipes mainly. But review says that there is poor image quality, no push notification, cannot edit post already made, cannot resize image.

2.9 Open Table:

It displays list of table addition with available tables. Input given by user is size and time. They provide redeem points also.

2.10 Big Oven:

It is basically designed for recipes. It includes menu planner.

2.11 Local Eats:

It has list of local restaurants. It uses GPS receiver for location. It also includes alphabetical search. By this survey we decided to club this all functionality into one system with additional facilities and rather than developing system for restaurants and hotel we are developing system for mess service provider with bidirectional communication between service consumer and service provider. Proposed system overcomes all disadvantage of above. Proposed system will includes features like one time login, finding nearest service, menu planner, push notification, uploading facility, instant response facility, message facility, canceling Feature. It also have employee module which includes login, communication between owner and employee, food related information and many more. Searching can be done in different manner like distance wise, cost wise, type wise (veg or non-veg), rating wise so that the user will comfortable to use application with their requirement.

3. PROBLEM DEFINATION AND SCOPE

3.1 Problem Statement:

Suppose the person got a job in different city then his own town or let's say a student goes for higher studies to other different city leaving his/her own town. At that time the city is new for that person so he/she has to manage different things there. One of them is food. They can go to hotels and restaurants but every day it is not feasible and affordable for the person, and also it is not good for health. It is necessary to find mess that gives homemade food on time and at both the times (lunch and dinner). This process of finding food service and gives all facility to user efficiently the system will be developed.

3.1.1 Goals and objectives:

i) **Goals:** To eliminate the burden of searching good food in new city. To save time of managing all the tasks for food service provider. To provide user friendly efficient service to all users.

ii) **Objectives:** The main objective of the proposed system is user comfort when they shifted to any new city. A Newly shifted person has lot to manage when they shifted from one place to another so this system will simply solve food related issues for people. Another main objective of this system is to manage different task of food provider and to automate them and to reduce use of paper and provide them a mobile system which will help them to do all task user friendly. Also there are some home food seeker who want homemade food, and when they shifted to new city they have to manage their food from anywhere from hotel or restaurant. The proposed system will designed for

those who provide homemade food. So that everyone who uses this system will be beneficial with Hygienic, quality and homemade food.

3.2 Statement of scope:

Scope of proposed system is justifiable because in large amount peoples are shifting to different cities so wide range of people can make a use of proposed system.

3.3 Methodologies of Problem Solving and Efficiency Issues:

Searching: In proposed system we are using Geo-hashing technique for searching. Here, the advantages of this technique over other approaches are:

i) With minimal communication and maintenance costs, the underlying data structure can be easily decomposed and shared among a number of cooperating processors, and the technique has been implemented on the Connection Machine.

ii) One of the advantages is that geometric hashing is inherently parallel.

iii) The structure of geo-hashed data has advantage that data indexed by geohash will have all points for a given rectangular area in contiguous slice.

3.4 Outcome:

i) An automated product which will provides different facilities for food service provider.

ii) Consumer will get nearest mess service.

iii) Based on various criteria user will have different choice to select mess service.

iv) Easy to get hygienic, affordable food in new city.

v) Money will be saved no more restaurants bill.

vi) Automated system for managing different task of provider.

4 DETAILED DESIGN

4.1 Introduction:

System architecture will simplify whole system in such a way that every user of the system gets benefits. As shown in figure there are 3 main users service consumer, owner of mess/parcel service, and employee of mess. When a person shifted to new city he has to find source for hygienic and quality food so he will search and select mess or home based food service based on his category that is whether the person is student, employee or general as well as service that is veg or non-veg. Here the main function is in what pattern user will search the service so for that purpose we are using a part of geo-hashing algorithm and GPS system should be on. Person can have facility to search service by location that is home location of the person is detected with GPS and according to selected option location of nearby service get searched. Another way for searching is by cost. Here user must give input in terms of rupees that in what range he need service per plate if there are any service provider within that area than the list will display. User can also search by rating. The service that has rating is checked by user given rating and if matched it will give the list of service. Search can be done by accepting distance from user in which user need to search and displaying service provider within that distance. User can communicate to service provider with the help of message box and get notification from provider end if any. On the other end provider has facility to add or reject request from person who want to join the service. Provider can maintain co-ordination between more than one messes. Apart from this auto report generation, employee and user management, calculation of payment, bill generation, Menu generation, and the main thing he can able to view history of staff that are previously working there. Employee is also part of this system who is working in a mess. The main functionality is giving requirement about vegetable and utensils needed to owner. Also they can view, share recipe by video uploading.

4.2 Architecture Design:

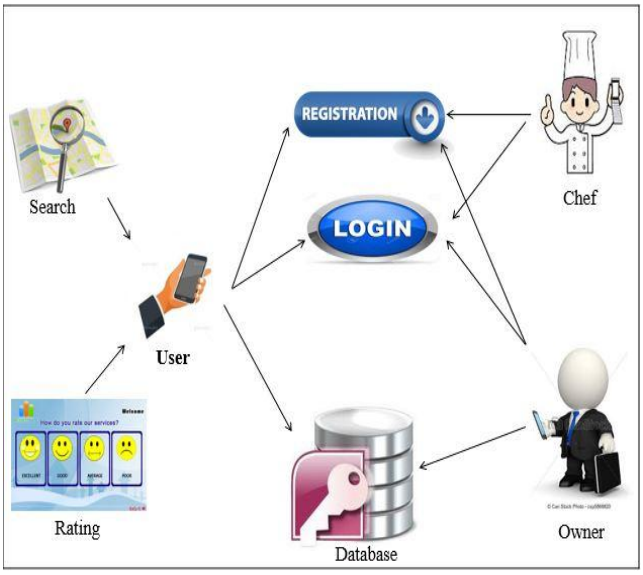

Fig -1: System Architecture

Owner (service provider) also registers on the system with detailed information. User name and password is also provided to the owner for login. Owner also selects the service which he provides either home based or mess service. Also select the food type veg, non-veg or both which he/she provides. Owner also maintains the information about staff or employee which working for the mess. Owner can add staff, add user, delete user and view feedback which is given by users.

Staff also register on the system with detailed information includes gender and food type which he/she cooking (veg, non-veg). When the employee login to the system it having the options includes add recipes, view video recipes, message to the owner about the requirement (vegetables, utensils etc.). The information of all users and employee is stored in the database at the server end which is accessible to only owner.

4.3 Geo-hashing Technique:

Our project is basically depends on how accurately it finds the nearest mess according to users requirement. In literature survey we analyze different techniques to find the nearest location. But other techniques not satisfy exact requirements of our project. But Geo hashing is one of the techniques which search the location within minimum time and gives accurate result. Therefore, we uses the concept of Geo hashing in our project for finding the nearest mess location. It includes longitude and latitude for finding the location. Geo-tagging is also used to tag the location of the mess according to the user's requirement.

Algorithm for finding nearest location:

i) The whole world is divided into two parts. "0" value is given to the first half part and "1" value is given to another half part. The process of division is done by vertical lines.
ii) Division is again performed on divided parts. This division is done by horizontal lines. Again 0"value is given to the first half part and "1"value is given to another half part.
iii) Steps 1 & 2 are repeated for obtaining bit series (single bits).
iv) This bits are converted into 32 base format.
v) In which sector (region) the location is falling, the code of that sector is geo hash the code of the location.

Geo code is important for finding nearest location.by using geo code accurate location is obtained. This geo code is compared with the geo code of other places whose record is there and finds the nearest location between them. In our system geo hashing technique is used for finding the mess by (location, cost, distance).after that geo tagging is used to tag the location and route navigation.

5 CONCLUSIONS

Proposed system is based on user need and user centered. The system will developed in considering all issues related to all user which are included in this system. Wide range of people can use this if they know how to operate android smart phone. Various issues related to mess will be solved by providing them a full-fledged system. Thus we are implementing E-FoodWorld system to help and solve one of the problems of people.

REFERENCES

[1] Zigbee-Based Smart Ordering System (S.O.S): http://www.ijcttjournal.orgJ.

[2] Real-Time Fully Automated Restaurant Management and Communication System Retro: http://www.ijret.org

[3] Automated Food Ordering System with Real-Time Customer Feedback: www.ijarcsse.com

[4] Electronic Menu Card for Restaurants: http://www.slideshare.net/ijreteditor/electronicmenu-card-for-restaurants

[5] Automated Food Ordering System with Real-Time Customer Feedback www.ijarcsse.com.

[6] Design and Implementation of Digital dining in Restaurants using Android www.ijarcsms.com Abbreviations and Acronyms

[7] An Efficient Algorithm to Detect the Nearest Location of A Map for A Given- Theme: http://www.ijstr.org/ final-print /apr2013/An-Efficient-Algorithm-To-Detect-The-Nearest-Location-Of-A-Map-For -A-Given-Theme.pdf

[8] Finding Nearest Facility Location with Open Box Query using Geo-hashing and Map-Reduce- http://www.gdeepak.com/pubs/Finding Nearest Facility Locations with MapReduce.pdf

[9] Geometric Hashing: An Overview: http://graphics.stanford.edu /courses/cs468-01-winter/papers/wr-ghao-97.pdf

[10] Touch Panel Based Restaurant Automation System usingZigbeehttp://www.ijsr.net/archive/v4i5/SUB154313.pdf.

[11] A Novel Approach in Restaurant Management with Adaptive Channel Hopping Technique: http://www.ijircce.com/upload/2015/june/NOVEL.pdf]

[12] eRestaurant:OnlineRestaurantManagementSystemforAndroidhttp://thesai.org/Downloads/SpecialIssueNo5/Paper8-E-Restaurant Online Restaurant Management System for Android.pdf

[13] A Case Study in the Design of a Restaurant Management System http://people.uncw.edu/simmondsd/research/PUBLICATIONS/rms.pdf

[14] An Efficient Approach to Find Nearest Location Using GEOHASHING on Hadoop and Pig: http://ijoer.in/3.3.15/771-777

[15] Digital Ordering System for Restaurant Using Android: www.ijsrp.org]

[16] Software Engineering a Practionars Approach: fifth Edition: Roger S.Pressman

[17] Dr. Deepak Garg and Vikram Singla, "Finding Nearest Facility Location with Open Box Query using Geo-hashing and Map-Reduce", 2014 IEEE International Advance Computing Conference (IACC)

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