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Food Guide Application

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Abstract **- Food Guide Application collaborates with various family restaurants and fast food restaurants that providehome delivery.This application will also be a one stop for all the types of food orders without the hassleof remembering various phone numbers of various food courts. It will automatically queuethe order requests in the restaurant's database and bill for the order automatically.This application would prove highly beneficial for companies obviously want to sprawlthemselves out as wide as possible so going with chains as an initial strategy.Mobile phone food orders represents a huge opportunity, but obviously, the moreparticipating restaurants you have the more likely you'll succeed and larger barrier to entryyou'll create for your competitors.**

Keywords **- Information Filtering, Search Process, Graphical User Interfaces (GUI), Interaction Styles, Screen Design (e.g., text, graphics, color), User Interface Management Systems (UIMS).**

I. INTRODUCTION

As the global adoption of mobile communications services continues to grow atunprecedented rate, there is widespread acknowledgement of the value created by connecting individuals to the global networked economy. These Mobile Internet services have been long hailed as transformational in their ability to deliver social benefits both in industrialized and emerging countries. Thus in order to exploit or facilitate users and help them order food or discover new places to eat we have come up with the food guide application.Being an android application, it will help users to order food from their home, search for restaurants near their location,and provideaccess to a variety of restaurant's menu. Also this app allows user to rate restaurants and also give their feedback.

II. PROPOSED SYSTEM

Today most of the people use the smart phones for their day-to-day work such as messaging, Internet browsing, video conferencing, chatting etc. Also the craze of smart phones is increasing rapidly among the people at noticeablerate. So taking this into consideration we have come with an android application that helps people in the department of food.

Proposed system is Android-based, smart phone system which will be simple to handle and use because of its simpler User Interface. The Food Guide Application consists of two modules:

1. The Android Application
2. The Restaurant Side Application

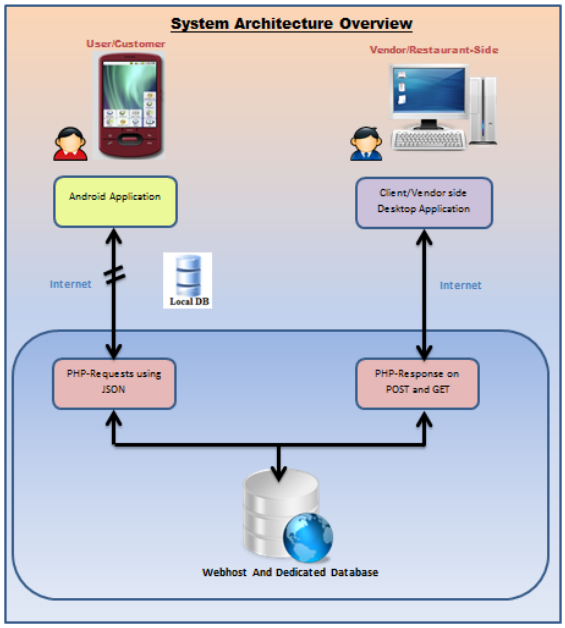


Fig. 1.1: Proposed System's Architecture

II. 1 *Android Application*

The Android Application or the Food Guide Application is for two types of user i.e. normal user and registered user. A registered user will be allowed to access some extra features of the application (apart from the normal features) which will not be accessible to a normal user. Android Application consists of many sub-modules (features), some of those are:

1. Login and Sign-Up
2. Search
3. Top 10
4. Near Me
5. Deals
6. Ordering

Login and Sign-Up Module

The Login Module allows a normal user to sign in as a registered one. If the user is new to the application and wants to become a registered user then he/she needs to register by providing some information about him/her. Basically the Login Module is a gateway for the user to access some extra features of application.

1.Search Module

As the name suggests the Search Module allows the user to searchrestaurants based on the name of the restaurants

and also by the category of food provided by the restaurants.

2. Top 10 Module

The Top 10 Module displays the list of top 10 restaurants based on the ratings and the feedback provided by the user.

3. Near Me Module

Near Me Module displays a list of restaurants near the current position of the user. This module takes in the current Latitude and Longitude of the user with the help of GPS and according to it displays a list ofrestaurants within a range of 10km square radius location of the user.

Mathematical Explanation:

$latx=0.04499;
$longx=0.05933;
$lat1=$lat - $latx;
$lat2=$lat + $latx;
$long1=$long - $longx;
$long2=$long + $longx;

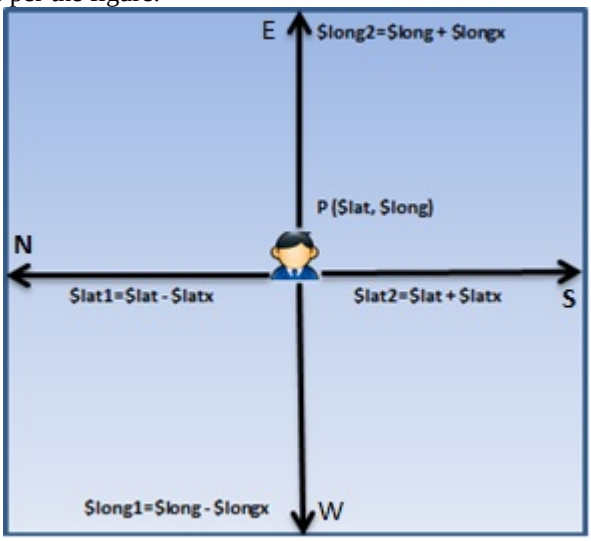
The latitude and longitude degrees are converted into kilometers using conversion:

10 km horizontal distance = 0.04499 degrees of latitude

10 km vertical horizontal distance = 0.0.5933 degrees of longitude (Different because earth is spherical and the values are approximate and sourced from the internet)

Using basic Geometry,considering yourself to be at the center of the square, the minimum and maximum limits for latitude (lat1,lat2) and longitude (long1, long2) are calculated.

Let the co-ordinates of the restaurant be Lx and Ly. Hence for the restaurant to be in your vicinity i.enear you at a distance of 10 km,the co-ordinates of the restaurant must satisfy the following compulsoryboundary conditions as per the figure:



1. $lat1 < $lat< $lat2
2. $long1 < $long < $long2
   Where $lat and $ long are co-ordinates of the current location of the user.

4. Deals Module

The Deals Module is only accessible to the users who have registered. This module displays a list of new offers, discounts and other deals which are currently present at that restaurant. Basically this module helps the user to be in touch with various new deals present at various restaurants.

5. Ordering Module

The Ordering Module is one of the major modules of the food guide application. This module is again only accessible to the registered user. This module allows the user to order food from various restaurants (those which provide home delivery) from their home.

Ordering Module allows user to take a sneak peak in the restaurant's menu.

Apart from these modules there are some other sub-modules, they are

Calling Module

The Calling Module allows the user to call the particular restaurant which he is looking for. The Calling Module makes use of the service provided by the service provider to make the call.

Map Module

The Map Module shows the location of the restaurant (the one which user is searching for) on the map. This module will help the user to find that restaurant which he is looking for very easily.

II. 2 Restaurant Side Application

1. *Login and Sign Up Module*
   This module allows the Restaurant Owner to register the Restaurant Details and Store the Restaurant Location.
2. *Manage Restaurant Menu*
   This module allows the user to edit,add and delete menu items and price for a particular Restaurant. This module also enables the owner to create new categories and edit the Restaurant Menu as required.
3. *Manage Orders*
   This module allows the Restaurant owner to confirm or reject incoming orders for home delivery. The user gets a confirmation of the order via SMS and Notification on the Mobile App along with the bill.
4. *Manage Restaurant Offers, Discounts Or Deals*
   This module allows the Owner to Create and Broadcast Special offers or Discounts to Customers as per the need.

III. Advantages of The Application

1. Enablesthe userto access variety of restaurant'smenu at one place 24 hours a day and 7 days per week.
2. Ordering:Supports Food Ordering (Only for those restaurants that support Home Delivery).
3. Near Me: Helps the user to find restaurants near his current location.
4. Rating: Allows the user to rate a particular restaurant and also allows him to share his views on that restaurant.

5. SMS Alert System: SMS is sent to respective userswho have ordered food from a particular restaurant, saying that their order is confirmed.
6. On the basis of the ratings provided by the user, top 10 restaurants are plotted down and are shown to the user.

IV. DISADVANTAGES OF THE APPLICATION

1. System Adaptability function isstill complex to implement as it includes system recovery & switching to an emergency server/s in case of main server failure.
2. Since this application needs internet facility/GPRS, mobile should have GPRS or any other internet facility so as to get access to the application.

CONCLUSION

Food Guide Application allows user to order food easily from their android phone, hence no hassle of busy phone lines and wrong orders and locations. It allows users to peek inside a restaurant menu from their phone and makes it convenient for the user to find a nearby restaurant or search for food according to the food type.

FUTURE SCOPE

1. This application can be used in Grocery shops also.
2. Various Shopping Malls can also use our application.
3. Advertisements about various products can be done using our application.

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