Dine Out

CS 16L2 Mini Project

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C E R T I F I C A T E

This is to certify that, this report titled ***Dine Out*** is a bonafide record of the **CS 16L2 Mini Project** work done by

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Sixth Semester B. Tech. Computer Science & Engineering students, under our guidance and supervision, in partial fulfillment of the requirements for the award of the degree, B. Tech. Computer Science and Engineering of **Cochin University of Science & Technology**.

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Abstract

The prime objective of 'Dine Out 'is to create a full fledged application which could locate a list of restaurants based on location and various factors like budget,food type etc.The user not only finds the nearest restaurants but also he can make a choice of best restaurant based on rating.Location-Based services or LBS are made use while implementing this application.This includes location obtained from the Global Positioning System(GPS).A detailed analytic report is provided to restaurant management depending on the user feedbacks.

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Chapter 1

Introduction

Application helps customers and restaurants to connect to a common system where customers are provided with an android app interface and restaurants with web application.Customers could find best restaurants which are signed in to the system, get their details and could rate them.On the other side restaurants could upload their details ,know the feedbacks from various users and implement appropriate improvisations.

Chapter 2

Proposed System

2.1 Problem Statement

We propose to develop an application which tracks user location and give details of restaurant according to budget and types of food. The nearest suitable restaurant will be found with the help of GPS (Global Positioning System) feature of the device.

2.2 Proposed Solution

Application will have a user interface and admin interface.User interface will help the user to select the requirements needed and to find a good restaurant after considering the weightage of different criteria such as price, distance, type of food and user rating.It also gives the provision to review the restaurants.Admin interface can be used by restaurant management to input details like menu card,images etc.Management may also get complete user reviews and feedbacks which could be made use at the time of improvisation.

2.2.1 Sorting

Out of the entire list of restaurants available,an efficient sorting is performed based on various criterion to arrange them in a systematic order which makes selection procedure easy.

2.2.2 Suggesting

This feature helps to suggest an exact restaurant that satisfies user requirements.

2.2.3 Rating

This is done by considering a number of parameters. They include
1.Quality of food served
2.Type of sevice provided
3.Location:It should be easily accessible to the customer
4.User Ratings and Reviews: Based on the reviews from previous customers

2.2.4 Decision Making

Once a list of possibilities is formed, we need to choose amongst them the best one. For that we consider the various factors like rating,cost,type of food,distance and opening/closing time of restaurants.

2.2.5 Input

1.User details like name,password,email etc
2.Price range
3.Type of food
4.User rating and reviews
5.Restaurant details

2.2.6 Output

1.List of most suitable restaurants
2.Analysis based on user reviews

2.3 Relevance & Applications of the Project

With its amazing features, Online Restaurant discovery and review platforms have become one of the most popular business model of India.Our application is all about ease of searching and finding most suitable restaurants.Users can also get directions to the restaurant from their current location with the help of maps integrated within the system which saves their valuable time.Since application has inbuilt options that enhance user engagement,it helps restaurants to get user feedbacks regularly which they should considering while implementing changes. All this makes the application an excellent platform where food enthusiasts interact on a regular basis.

Chapter 3

Software Requirement Specification

3.1 Introduction

3.1.1 Purpose

The purpose of this document is to provide a detailed description of 'Dine Out',which is basically a restaurant finding application.The information about it's both interfaces,user and admin are included here.

3.1.2 Intended audience

This document is intended for both the developers as well as the users of the product.

3.1.3 Project Scope

In today's world everyone is equipped with powerful smart devices and for user there is no need to handle or manage big data.Low cost cost effective applications like 'Dine Out 'will do this efficiently.

3.1.4 Design and Implementation Constraints

There should be a super admin to manage various accounts.Steps should be taken to manage database regularly and proper actions must be followed for verification of registered restaurants.

3.1.5 Assumptions and Dependencies

Users must be connected to internet ,since app uses location based services.Also the various parameters like cost,distance are assigned weightages that is made use in algorithms.So the parameter having more priority will influence the selection procedure.

3.2 Functional and Non-Functional Requirements

3.2.1 Functional Requirements

sorting

The restaurants are sorted according to various factors like nearness,cost,type of food,opening/closing time,rating etc.

suggestion

From sorted list most suitable restaurants are suggested after considerig weightage given to different factors.

3.2.2 Non-Functional Requirements

Performance Requirements

The product works easily on any supported web browser that supports HTML 4.0 and doesnt require much performance requirements.

Safety Requirements

Safety requirements are not applicable

Software Quality Attributes

The backbone of the project is the sorting and suggesting algorithms.The efficiency of these algorithms determines the quality of software.And also as the no: of available registered restaurants increases, we wiil be able to produce more suitable result.

3.3 Hardware and Software Specifications

3.3.1 Hardware Requirements

- Server: All Intel or AMD - 2 GHZ server PC
- Client: PC with minimum 512mb RAM and 2GB HDD or a supported mobile platform.
- Client: Mobile phone having android OS

3.3.2 Software Requirements

- Client on Internet: Web Browser supporting HTML 4.0+, Operating System (any)
- Web Server: Apache v2.0
- Data Base Server: MySQL
- Web backend: PHP (Codeigniter)
- Web frontend: HTML, Javascript, CSS,Bootstrap

Chapter 4

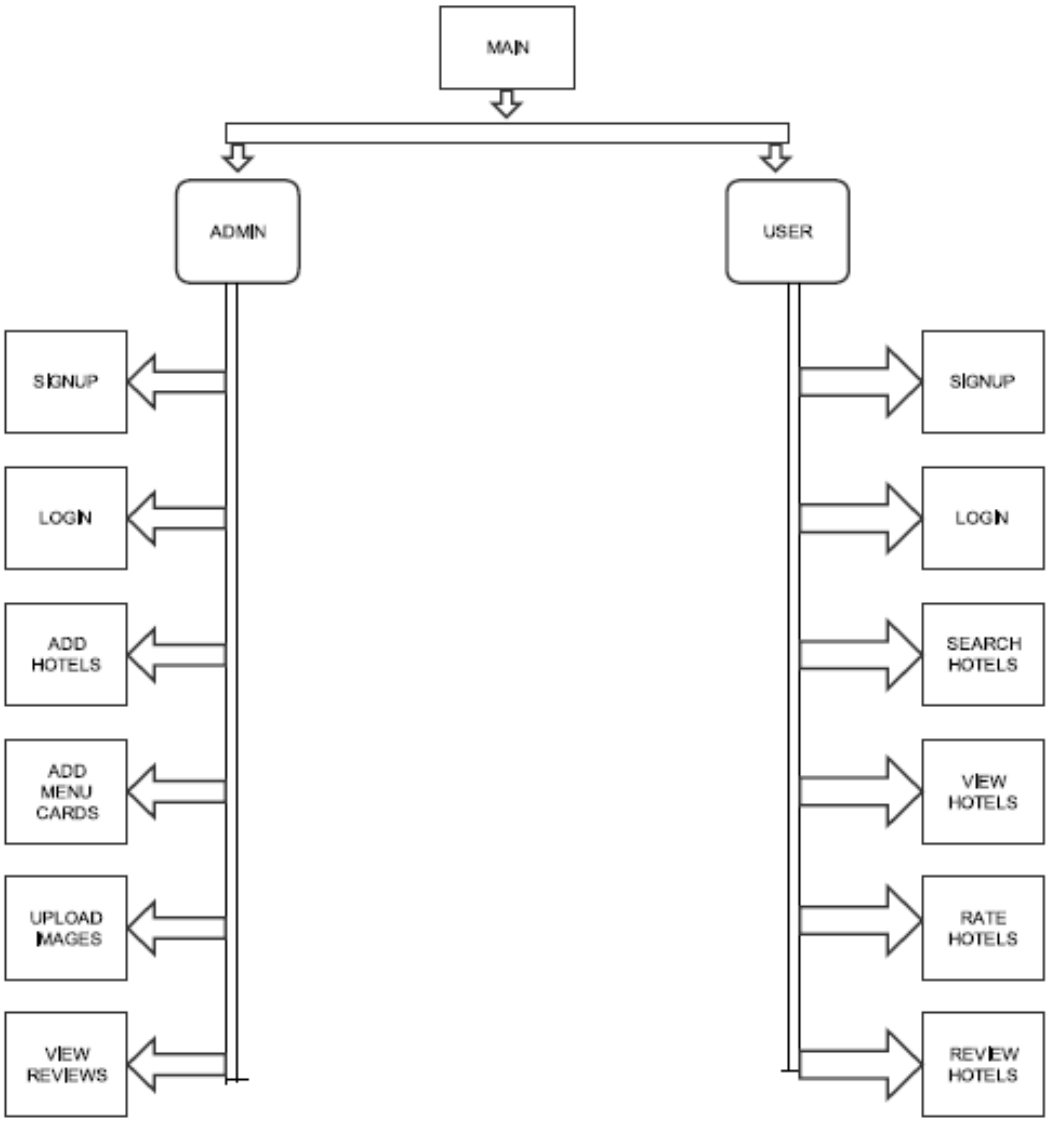
Project Design

4.1 Design Documentation

4.1.1 Design description

The user interface is kept simple and understandable.The user need not take any additional effort to understand the functionality and navigation in the application.Hints are given to help user in giving correct input. For both app and site home page has options for login.After successfull login user will be redirected to an activity where best restaurant could be seleted.in the site,admin after login is redirected to admin panel where they could add their details,new restaurant info etc. In app,there are provisions to view ratings and reviews of restaurants.The web application also consist pages for displaying contact info,feedbacks.The data given as the input to the forms after passing through certain query, it will check and process the data and finally store it in the database which is working at the back end of the system. Whenever the need arises the data can be fetched from the database, processed and proper output is displayed.

4.1.2 Design Block Diagram



4.1.3 Algorithms

Sort Hotels

Purpose: To select relevent hotels based on user's interests (sorting criterias) like location, food preferences, budget rates, people reviews etc.
1. Start
2. Choose the criteria for sorting (like location, food preferences, budget rates, people reviews etc)
3. Based on the selected input sort the list of hotels and display them.
4. Stop.

Suggest Hotels

Purpose: To suggest the best hotels to the user based on his history of transactions through the app.
1. Start
2. Populate input data from the history of transactions through the app.
3. Based on the populated data find similar hotels with similar food type, reviews etc.
4. Sort them first based on distance from current location and inside that based on reviews.
5. Stop.

Hotel Analytics

Purpose: To produce a analytical report based on user reviews and rating.
1. Start
2. Populate input data based on user rating and reviews, hotel id (about the hotel) and ratings, food
3. Based on populated data produce the brief report which includes:
    3.1. Customer Satisfaction
    3.2. Ranking
    3.3. Most liked food.
    3.4. Worst food.
    3.5. Where to improve
    3.6. Overall Rating

4. Stop.

4.1.4 Database Design

USER

ID	INT
NAME	VARCHAR
PASSWORD	VARCHAR
MOBILE	INT
EMAIL	VARCHAR
STREET	VARCHAR
CITY	VARCHAR
PINCODE	INT

ADMIN

ID	INT
NAME	VARCHAR
PASSWORD	VARCHAR
RATING	INT
FOOD TYPE	VARCHAR
LATITUDE	FLOAT
LONGITUDE	FLOAT
TOPEN	FLOAT
TCLOSE	FLOAT

MENU

ID	INT
HID	INT
ITEM	VARCHAR
TYPE	VARCHAR
PRICE	INT
UPVOTE	INT

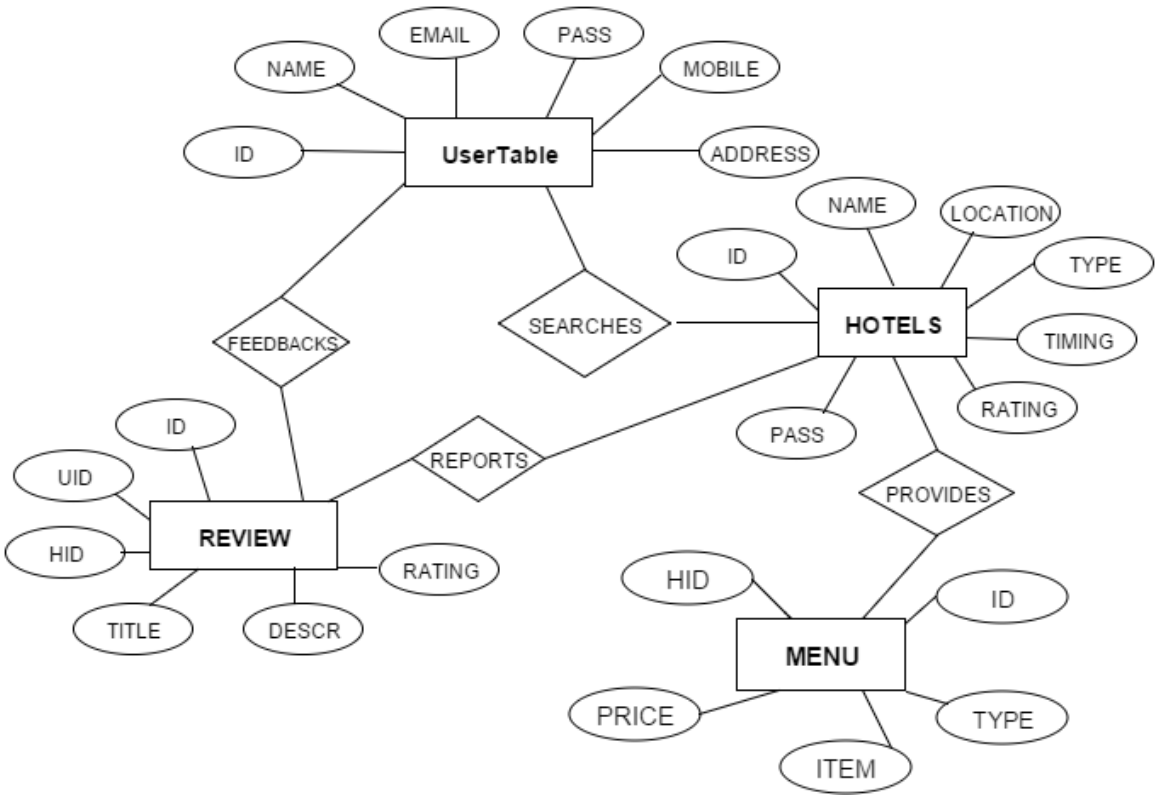
REVIEWS

ID	INT
USERID	INT
HID	INT
HEADING	VARCHAR
DESCRIPTION	VARCHAR
RATING	INT

IMAGES

ID	INT
HID	INT
IMGURL	VARCHAR

4.1.5 ER Diagram

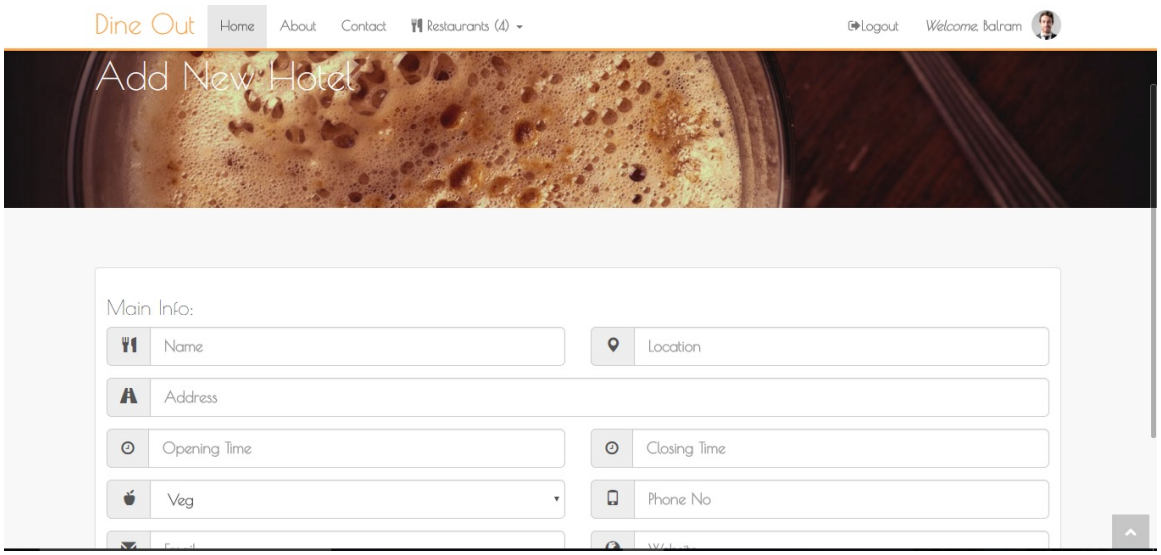


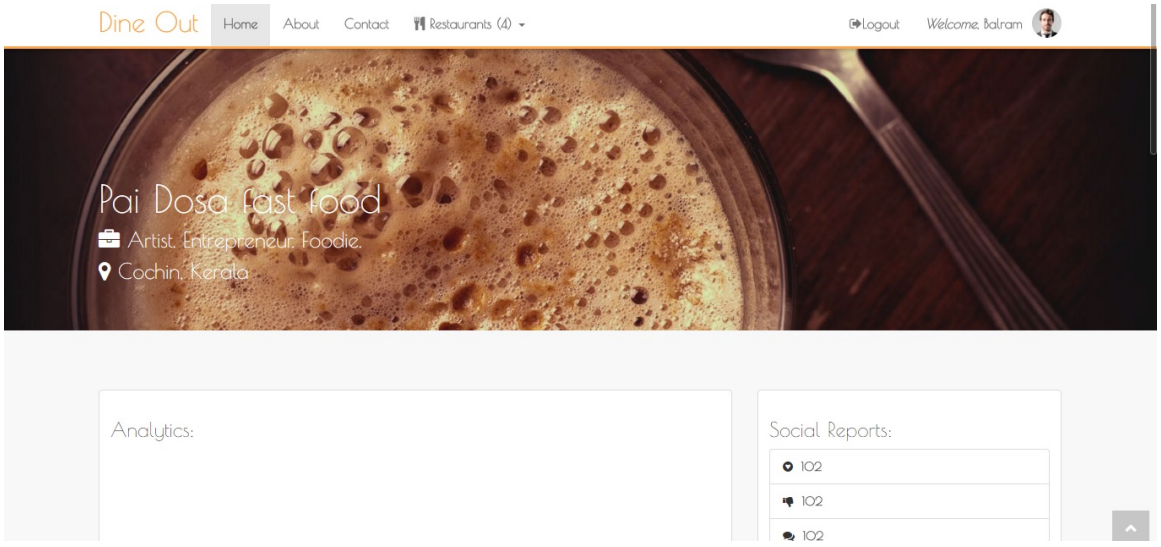
4.2 Human Interface Design

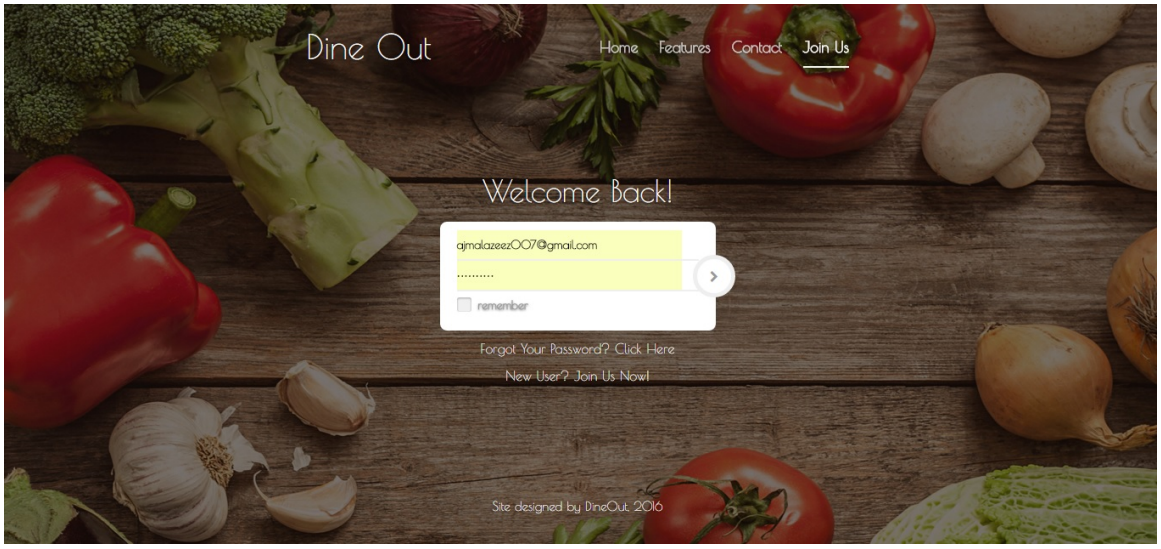
4.2.1 Overview of Human Interface Design

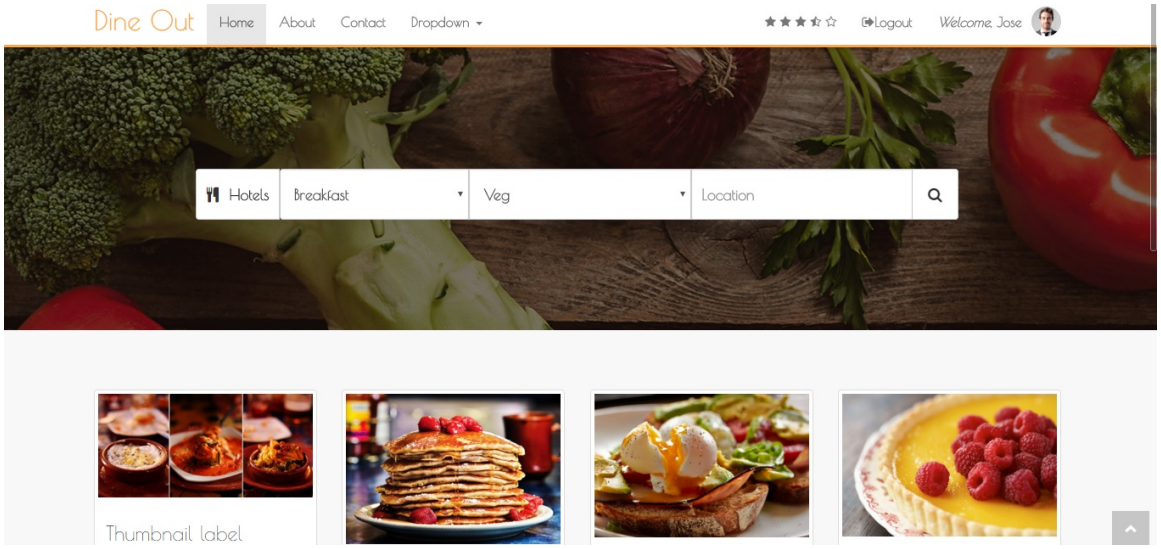
Application has both user and admin interface.User is provided an android application interface and admin is provided a web application interface.User interface could be used to find hotels.User could maintain his profile through app.They could also utilise it for reviewing purposes and upvoting.Using admin interface,management can input their details,upload images and menu.The site also allows admin to view feedbacks from users.

4.2.2 Screen Images






Dine Out
Home
Features
Contact
Join Us
Welcome Back!
ajmalazeez007@gmail.com
remember
Forgot Your Password? Click Here
New User? Join Us Now!
Site designed by DineOut 2016


Dine Out
Home
About
Contact
Dropdown
Logout
Welcome Jose
Hotels
Breakfast
Veg
Location
Thumbnail label

Chapter 5

Implementation

5.1 Technologies Used

5.1.1 XAMPP

XAMPP is a free and open source cross-platform web server solution stack package developed by Apache Friends, consisting mainly of the Apache HTTP Server, database, and interpreters for scripts written in the PHP and Perl programming languages. XAMPP stands for Cross-Platform (X), Apache (A), MariaDB (M), PHP (P) and Perl (P). It is a simple, lightweight Apache distribution that makes it extremely easy for developers to create a local web server for testing and deployment purposes. Everything needed to set up a web server server application (Apache), database , and scripting language (PHP) is included in an extractable file. XAMPP is also cross-platform, which means it works equally well on Linux, Mac and Windows.

5.1.2 MySQL

MySQL is the worlds second most widely used relational database management system (RDBMS) and most widely used open-source RDBMS. MySQL is a popular choice of database for use in web applications, and is a central component of the widely used LAMP open source web application software stack.

5.1.3 PHP

PHP is a server-side scripting language designed for web development but also used as a general-purpose programming language. PHP code can be

simply mixed with HTML code, or it can be used in combination with various templating engines and web frameworks. After the PHP code is interpreted and executed, the web server sends resulting output to its client, usually in form of a part of the generated web page.

5.1.4 CodeIgniter

CodeIgniter is an Application Development Framework - a toolkit - for people who build web sites using PHP. Its goal is to enable you to develop projects much faster than you could if you were writing code from scratch, by providing a rich set of libraries for commonly needed tasks, as well as a simple interface and logical structure to access these libraries. CodeIgniter lets you creatively focus on your project by minimizing the amount of code needed for a given task.

5.2 Testing

Android app was tested in various devices inorder to ensure whether it works properly in all cases.Certain fail cases were found and were corrected.Initially website testing was done by setting up a virtual host.Then database was imported and testing was conducted.This was done in various systems. The site worked perfectly for different web browsers.

Chapter 6

Conclusion

6.1 Results

During the course of this project there are many findings that we have come across.Actually this application was planned for professionals and industrialists who have got money less time to waste.What problem they come across is that they have got very less time so they go to whichever restaurant they find first.What happen after getting into the restaurant is either they don't like the food or if the food is good then they have to pay more for the same taste of food available nearby that restaurant that too with great ambience.This finding really motivated us to make an app for this community so that we can save both their time as well as money.But later on we realized that other communities like that of students,workers etc can also find this app useful and that gave us idea to put a search box as well for specific finding by user.The most important data of restaurant information is the ratings and the user reviews and admin could view it through web application.

6.2 Conclusions

This is our first attempt in developing a mobile application with the use of Google Place APIs which gave us a basic understanding of development and challenges of getting information from the APIs and parser in to the desired format.The main aim of the project is to provide an easy to use application for searching the restaurants so that we can save time of person in finding agood restaurant.Along with the detailed reviews from users is made available to the restaurant management side which helps them in

furthe improvisations.There are many improvement that are to be done in this application.The application has been implemented and tested on real devices.

6.3 Future Scope

The application can be improved in many ways and can be extended to support more devices like windows and ios devices.FOllowing are some of the possible extensions:
1.)We could implement push notifications for mobile app that will help user to receive offers available in various restaurants.
2.)There can also be ways to directly navigate the user to the restaurant or provide a way to call the restaurant when clicked on the phone number.
3.)User could be given provisions to post on social networking sites about various resttaurants directly through the app.

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