RESTAURANT WEBSITE

TABLE BOOKING - FOOD ORDERING

SOFTWARE ENGINEERING LAB

FIFTH SEMESTER 2021

INSTRUCTOR: DR. SANTOSH SINGH RATHORE

GROUP - 37:

VIJAY LOKITH R R	2019IMT-114
CHINTHALA ASHISH	2019IMT-030
AVO ELVIS THEYO	2019IMT-026

TABLE OF CONTENTS:

Section -1:

Section -2:

SECTION-I

PROJECT PROPOSAL:

We will be building a fully functional,elegant and efficient website for a restaurant called Silver Leaf owned by Mr. Ritesh Agarwal, after realising that the future of his business is more towards online services. Mr.Ritesh wanted this website because he was finding it difficult to earn profits through third party food ordering apps (like swiggy and zomato) and also during this pandemic it would be helpful for customers to reserve a table in advance.Through a website it will be easy for customers to get information about any offers and news about restaurant. It will also be an easy task to maintain the customer database which can be useful from a business point of view.

TASKS SUPPORTED BY THE WEBSITE:

The website will perform various functions out of which, the main functionalities are:

1) **Table booking:**
   This will allow the customer to reserve a table at the restaurant at a specified time in accordance with it's availability.

2) **Food Ordering:**
   This will allow the customer to order the food item of their choice available on the restaurant menu.

3) **Delivery tracking:**
   This will allow the customer to have a rough estimate of when their food item will be delivered.

Alongside these there are some sub functionalities such as:

1) **Feedback:**
   This will allow the customer to provide feedback of the ordered food item back to the restaurant.

2) **Search:**
   This will allow the customer to quickly search for the desired food item of their choice.

3) **Sorting(veg / non-veg):**
   This will allow the customer to sort the food items in the restaurant menu according to veg / non-veg.

4) **Previous orders:**
   This will allow the customers to view their past orders.

PROBLEMS THE WEBSITE WILL SOLVE:

Problems solved by the website (Customer's Standpoint):

1) **Waiting for a table:**
   This is the most common problem faced by many famous restaurants.This can be solved by using the table booking feature which can be accessed from wherever you are.

2) **Crowding:**
   Mainly during these times, we can get rid of crowding using the advance table booking and online food delivery because through one, the customer gets to know about the restaurant seating and from another he can order from his residence itself.

3) **Time consuming:**
   Nowadays people value time over money. Customers need not wait in the queue and waste their time getting served or for a takeaway. Online food ordering and advance table booking is less time taking and also less tedious.

4) **Time Transparency:**

The customers will have a clear idea of where their order is and when it will be delivered. Through this website, customers can track their order from it's preparation to delivery and GPS is used to know the live location of the delivery person.

Problems solved by the website (Owner's Standpoint):

1) **Dependency:**

By having an independent website, the restaurant will have full ownership of their business on the online platform and will not be dependent on third party food ordering and table booking applications.

2) **Commission pay:**

Third party food ordering and Table booking apps take commission on every transaction, this would lead to a substantial decrement in the earnings. Having an independent website will help in overcoming this situation.

3) **Tracking:**

Admin will be able to track the location history of the delivery person which indeed decreases the chances of malpractices by the delivery person.

THIS PROJECT IS NEITHER TOO EASY NOR TOO AMBITIOUS:

In this project we will be documenting reports, designing, coding, testing and maintaining. So it is never too easy irrespective of the concept of the project. On the other hand, making efficient use of the class lectures, reports, blogpost and various other resources is not too ambitious either.

SECTION-II

OVERVIEW OF THE EXISTING SYSTEMS AND TECHNOLOGIES:

Many businesses are moving their products over to the Internet with the hopes of better profits as the Internet provides a wider range of customers. It is common now to see restaurants getting in on the action by providing their services online. Popular fast food chains such as KFC, Domino's Pizza and McDonald's to name a few provide their services online through their personalized websites. But when we consider the second string restaurants, they are still mostly dependent on third party online food delivery applications such as Zomato and Swiggy and table booking applications such as Dineout and OpenTable to provide their services online which charge a certain amount for their services.

SCOPE OF THE PROJECT:

In this project, we will be working on creating a website revolving around the services of a restaurant. We will mainly be working on a website which provides:

- The ability for a customer to view the restaurant menu and order the food of their choice. This will be made possible by providing proper pictures and a brief description of the food item.
- The ability to reserve a table at a specified time in accordance to its availability. This will be made possible by cross checking the database to see if the table is available at the customer's specified time.
- The ability to track the delivery of the customer's order and the time left for arrival. This will be made possible by tracking the delivery person's location and estimating the time by calculating the distance to the customer's location.

We will also be working on implementing other sub features to the website to improve the user experience.

We will create a database where new items can be added or existing items can be removed by the admin. The database will also hold the history of the orders made by the customer.

DELIVERABLES:

A fully functional restaurant website where a customer can sign in, register themselves if they are new to reserve tables or order the food item of their choice and track the delivery.

FEASIBILITY STUDY:

This section is a documentation on the evaluation of feasibility of the proposed website. It gives a conclusion of whether to continue with the project as it is practically feasible or to think/analyze about the proposed project if at all the website development is not feasible under some factors.

FINANCIAL FEASIBILITY:

The tools required for developing the website are free of cost and require no additional cost except for the GPS tracking api which would require some additional cost. The main costs in any software engineering project will be in developing, hosting and maintaining. In this case it is considered as negligible. We will follow freeware software standards, i.e, no amount will be collected from the customer for using the website.

So, we can say that developing this website is financially feasible.

TECHNICAL FEASIBILITY:

This is a complete web based application. The main technologies and tools used for developing the website are:

- HTML (For front-end website development)
- CSS (For front-end website development)
- PHP (For backend website development)
- MySQL (To store data from the website and also to access data required by the website)

Each of these are freely available and technical skills required are manageable. So, we can say that developing this website is technically feasible.

RESOURCE FEASIBILITY:

Resources that are required for this website development are:

Programming individuals: 3 in this project

Programming devices: Computers or laptops

Programming tools:

- Visual studio Code (For editing the codes of HTML,CSS and PHP)
- Git (For coordinating work among programmers)
- MySQL (For maintaining databases required for the website).

Hosting space:

XAMPP (Platform that furnishes a suitable environment to test and verify the working of a website on a local server)

All of these resources are available. So, the project is resource feasible.

TIME FEASIBILITY:

As this is a small project, the scale size will be a few hundreds of lines of code. For a group of 3 software developers it is a considerable amount of time to develop a fully functional website within 3 months.

So, the project is time feasible.

RISK FEASIBILITY:

Risk associated with Size:

- The project may have around a few hundreds of lines of code because there are many features that need to be implemented and so the size of the files required for the website will be minimal.
- Database size will also not exceed the values supported by MySQL. Number of relations is reduced using normalization.
- Every user i.e., admin, customer and delivery partner will not have a separate web page for login instead all of them will have a single login page and access

to data is given based on access rights. This would minimize the size of the project.

Risk associated with the users:

- All the requirements for every user are identified before the project implementation step itself. So every user is given his/her respective access to the website.
- The access conditions will only be changed if new functionalities are added to the website.

Technology related risks:

- All the technologies used in this project are very well established.
- There are no new algorithms used in this project but we will use the existing algorithms to maximize the performance of the website.
- GIT will be used to track the changes in the code of the project and to coordinate between all the programmers. So, even a small change in the code can be identified.

So, this website is risk feasible.

SOCIAL/LEGAL FEASIBILITY:

Tracking someone or viewing someone's location without their permission is illegal. But over here

- We use a GPS tracking system for food delivery where the customer is asked permission to share the details of his location.
- Also, the delivery partner location will also be tracked whenever he is delivering an order and for this too the delivery partner's consent is already taken.

So, this project is legally feasible. Hence, we can conclude that the project is feasible under all factors and can be implemented without any doubt and misjudgements.