

MAJOR PROJECT PROPOSAL

ON

Restaurant Management System

PROGRAM: BCIS

POKHARA UNIVERSITY

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KATHMANDU, NEPAL

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SUBMITTED TO

PROGRAM: BCIS

APEX COLLEGE

POKHARA UNIVERSITY

**In partial fulfillment of the requirement for
BACHELOR IN COMPUTER INFORMATION
SYSTEM**

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Abstract

This project titled as “Restaurant Management System” is developed in Php using HTML, bootstrap, JavaScript and CSS. We have used HTML, CSS, Laravel and VUE.JS in front end and SQL developer and database as back end. This is a concept of placing orders in a Restaurant via web application and reserving table from any places using the restaurant web application by the users. In this system the admin can login and store the food menu item, their price list and user as well as other admin information from the system. This system is developed to provide service facility to restaurant and also to the customer. This restaurant management system can be used by employees in a restaurant to handle the clients, their orders and can help them easily find free tables or places orders. The admin can access, add, update and delete the menu list of the restaurant as well as also can view the number of order list they are getting and also can view the reservation of table done by the online user. This system also enables the delivery of food to the customerat desired location by selecting foodonline. Our system would also be enabled as a POS (Point of Sales) in the restaurant. The guest user can only view the menu provided by the restaurant and get detail about the restaurant by sending message to the restaurant. The user must be login to order the menu from the restaurant and the order places are sent to user cart for further information where the user can edit their order or delete the order as well also can view the bill.

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List of Abbreviation

- CSS: Cascading Style Sheet
- DBMS: Database Management System
- HTML: Hyper Text Markup Language
- PHP: Hypertext Preprocessor
- SQL: Structured Query Language

Chapter 1

Introduction

1.1 Background

Restaurant Management Systems are the crucial technology components that enable a single outlet or enterprise to better serve its customers and aid employees with food and beverage transactions and controls. A point of sales system is either a stand-alone machine or a network of input and output devices used by restaurant employees to accomplish their daily activities including food and beverage orders, transmission of takes to the kitchen and other remote areas, guest-check settlement, credit card transaction processing, and charge posting folios.

Restaurant Management System is a web application for manage the restaurant business. This system is developed to automate day to day activity of a restaurant. Restaurant is a kind of business that serves people all over the world with ready-made food. This system is developed to provide service facility to restaurant and also to the customer. This restaurant management system can be used by employees in a restaurant to handle the clients, their orders and can help them easily find free tables or places orders. The Restaurant Management System helps the restaurant manager to manage the restaurant more effectively and efficiently by computerizing meal ordering, billing, inventory control, sell management, employee management, and report generator. The users can do online payment through khalti app otherwise they can do payment at cash on delivery.

Many restaurants have a lot of difficult to manage the business such as customer ordering and reservation table. By using manual customer ordering it is difficult for the employee to keep the correct customer information and may lose the customer information. Nowadays, many restaurants manage their business by manual especially take customer ordering. Today, restaurant waiter takes the customer ordering by manual system with using paper. This is problem for restaurant waiter the probability lost and duplicates customer information. Additionally, it would affect to reputation restaurant in operate management of ordering, hides the restaurant waiter information also by manual system kept use paper and this is difficulty for restaurant administrator to find waiter information, probability missing the paper and difficult to arrange the schedule. Sometimes, waiter information and customer information is important to restaurant administrator for reference in the future. Therefore, this restaurant management system will have contained a higher level of security which is known as cross site request forgery and ordering and reservation management will become easier and systematic to replace traditional system.

The best way to optimize these activities is growing the business online as well. Today's generation encourages high-tech services especially over the internet. Hence, the project is developed proficiently to help restaurant owners automate

their business operations. This project serves the best way of maintaining customer's information and caters their needs.

1.2 Scope

Meanwhile in analyzing the project, there can be seen high demand of the management system in restaurant in today's world. In our research we found most of restaurant lack the proper management system in their business activities. It was found that many restaurants are still using the manual system of ordering as well as billing in their daily business activities. It also triggered about the fault records in their record book and many restaurants facing the problem of taking the order from the people but the order are being placed to wrong people due to manual recording of taking order. We visited many restaurants and small cafe's where we found the record are being kept manually and even some of the restaurant using the excel sheet for recording their daily and overall sales of their business. As this system also enables the customer to do the online payment. So, with our research we found out that this kind of system in restaurant and café sector can enhance their operation activities smoothly and overcome all their function arising in their business lifecycle.

1.3 Project Description

The proposed project will be useful mainly for the restaurant businesses and customer who love to prefer the readymade food, organizing seminars and events. Nowadays, people prefer the home delivery services for the food products as well as restaurant businesses use the manual system for booking of hall, customer orders. But, with the help of this management system it provides dedicated services to restaurant business as well as customer too. In this system, restaurant can manage their inventory, sales, account, billing as well as food item and employees of their work place. Besides these, the system lets you effortlessly manage your entire restaurant inventory, bar, confectionery, coffee shop and sweets shop. Table management tool keeps updating the table bookings information by providing them color codes for easy understanding. You can connect you whole restaurant chain with the system to import and export data related to inventory, sales and bookings. The system operates flawlessly, making you more customers focused. It ultimately results in better user experience and the

guests feel like visiting your restaurant again and again. Convenience is a key business driver in the hospitality industry, and the restaurant offering the convenience of table booking, payments and food options to the guests get more customers too.

1.3.1 Theoretical Knowledge

In order to complete this project we required some theoretical knowledge about the internet technology and about its components and networking like HTML, LARAVEL, GIT BASH, VUE JS, and CSS. For the storage management of the data of the proposed system we also have knowledge about database management like MYSQL.

The system will be developed on the PHP as a backend programming language to interact with the database and store the information as well as develop the functionality of the use of the system effectively. Bootstrap and CSS (Cascading Style Sheet) for will be use as a designing framework this project. Bootstrap will help to build the framework for their system with adding PHP function to support the framework in a dynamic pattern. CSS will help in designing the framework and providing beautify to the bootstrap layout of the project.

1.3.2 Overall Representation of the Project

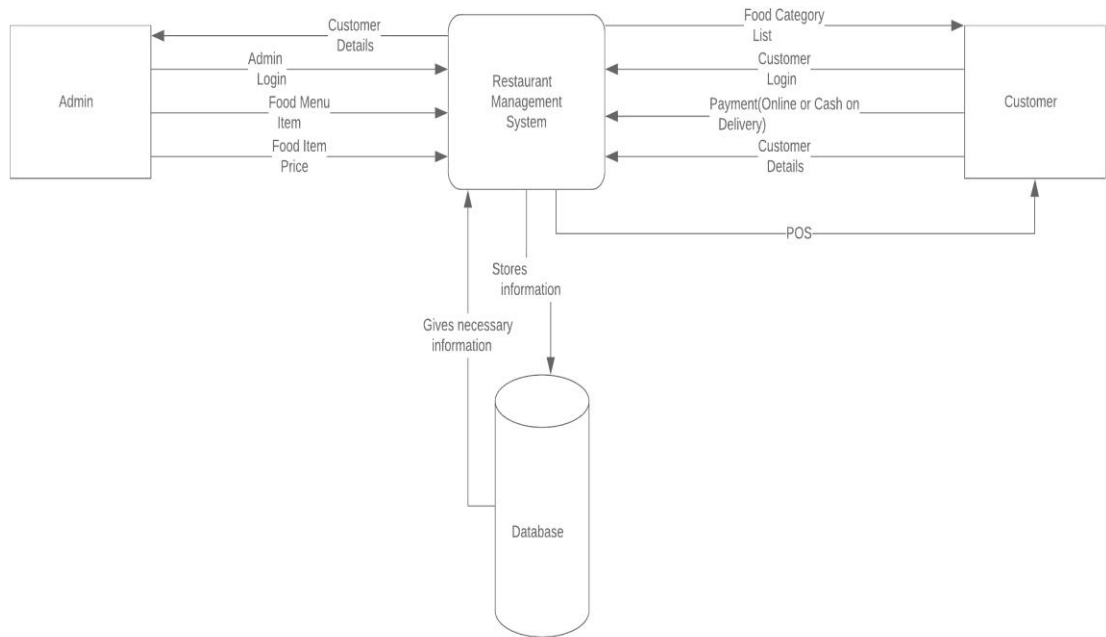


Figure 1 Context Flow Diagram

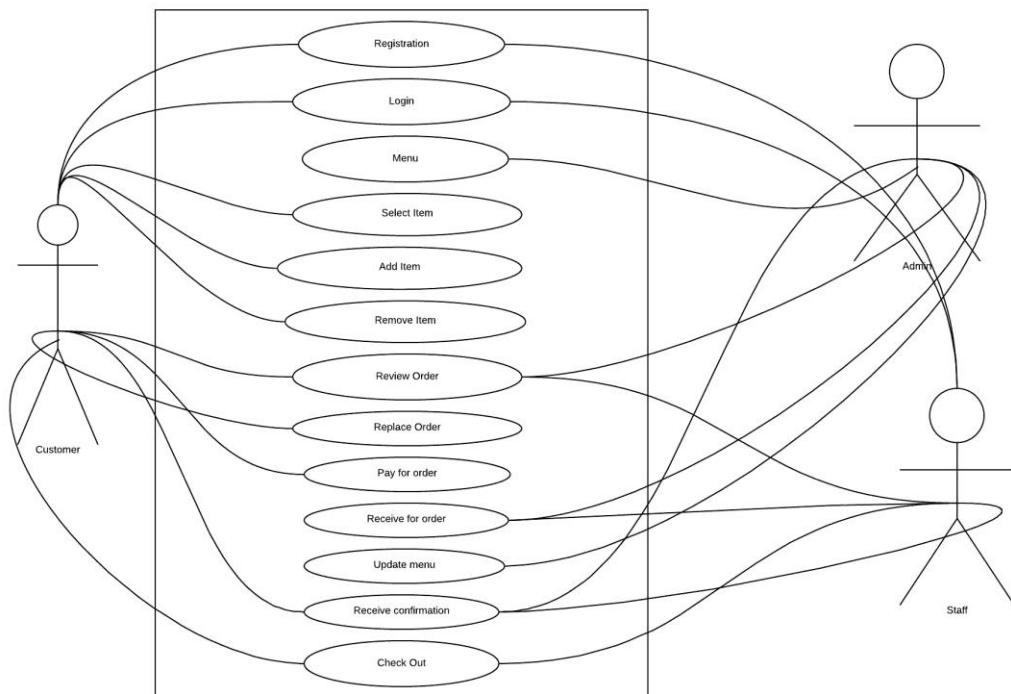


Figure 2 Use Case Diagram

1.4 Objectives

1.4.1 Academic Objectives

The following are the academic objectives of the project:

- To complete the minor-project we mentioned by the university in a specified time.
- For the partial fulfillment of requirement for the degree of BCIS.
- To learn about time management and explore more on group work with environment.
- To improve skill in information technology and database management system.
- To encourage and motivate team members.
- To utilize the theoretical knowledge and bring it into practical form.

1.4.2 Other Objectives

The following are the specific objectives of the project:

- To learn about the real time working of web development fundamental concept.
- To develop a viewable platform on any devices with 100% responsiveness.
- To develop a web-based application, which can easily and effectively manage ordering and billing of food items.
- To help reduce manual, repetitive and paperwork.

CHAPTER 2

Literature Review

Restaurant Management System, a proper and systematic system which deals with the management activities of the restaurants in this competitive 21st century. We came to know about this project from visiting the renowned restaurant and café Red Mud Café of Jhamsikhel. We visited there for our refreshment and we got to know that they have digital way of taking order from the customer and digital billing view for the customers.

By seeing the management service at the Red Mud Café we were inspired and decided to do this project and implement in real time for the restaurant those who are seeking for the systematic and ease way of providing their services to the people within their business place as well as out of their business area like home based order. We want to develop this system to make the restaurant business to operate smoothly and customer to get enough satisfaction as well as help the restaurant to operate in the competitive market and sustain for a long period of time. This system gives its user an easy way to perform their tasks effectively.

For making this project, we surveyed many restaurant and café to know whether any of them has used this system. But we got to know that only few renowned restaurants are using these kind of system but they lack the online order system in their used system. In development of this project, we need to know all the components that are attached to restaurant in order to include in the new system so that user can feel easy to operate with this system.

For the further enhancement, we are searching for more features and conducting more research in order to build this system effectively with more features.

CHAPTER 3

Methodology

3.1 Hardware and Software Requirement

3.1.1 Hardware Requirement:

- Keyboard
- CPU
- Monitor
- Mouse
- Internet Connection

3.1.2 Software Requirement:

- Operating system: Microsoft windows XP and above
- Front end tools: HTML, PHP, CSS, Bootstrap
- Back end tools: SQL Developer, DBMS Server

3.1.3 CPU

- Processor: Intel Dual Core and above
- RAM: 4GB
- HDD: 500MB of available hard disk

CHAPTER 4

Expected Outcomes

This system is designed and developed in very easy interface and simple manner for the restaurants and online customer as well as visiting customer in restaurant. This is a system that will be able to store customer's information, employee information, menu's information, reservation information, online ordering information. This system generates sales and profit business report for the restaurants. It includes the information about the different outlay it has in particular city. The roles are assigned to the staff of the as per their assigned task and duty in the restaurant.

The customer can register and place online order from the restaurant and choose the desired payment system for pay service. For regular customer, they get a table in each table to order the desired food and they can make the payment from their table with option like **credit card**, mobile-banking, esewa as well as cash. The restaurant employees can use the system as per their roles assigned to them. The manager can view all the orders, report, customer details, employees' details and it can be said that s/he will have maximum access than of other staff. The kitchen staff can only view the order and set the desired time to complete that particular order. Whereas, cashier can have access to the order, billing system, payment receive and return.

This system will be full of online ordering system for a particular restaurant as well as POS (Point of Sale) system for visiting customer to restaurants. This system helps completely change of manual system to computerized system.