RESTAURANT APPLICATION

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ABSTRACT

The simplicity and ease of access of a menu are the main things that facilitate ordering food in a restaurant. A Tablet menu completely revolutionizes the patron's dining experience. Existing programs provide an app that restaurants can use to feed their menus into **web application** make it easier for the diners to flip, swipe & tap through the menu. We here aim to provide the restaurants with a tablet menu that would recommend dishes based on a recommendation algorithm which has not been implemented elsewhere. In addition to this we run the app on an Android based tablet & **iOS-based** tablet. We use a server for storing the database which makes it inexpensive & secure.

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to our guide **Professor. Yash Sheth** Department of **Mobile Application Development**, for his excellent guidance and invaluable support, which helped me accomplish the Semester and prepared me to achieve more life goals in the future. His total support of my dissertation and countless contributions to my technical and professional development made for a truly enjoyable and fruitful experience. Special thanks are dedicated for the discussions we had on almost every working day during my project period and for reviewing my dissertation.

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We wish to express deepest gratitude and thanks to **Prof. Yash Sheth,** CEGEP COLLEGE for his constant support and encouragement in providing all the facilities in the college to do the project work.

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On a more personal note we thank our beloved parents and friends for their moral support during the course of our project.

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1.1 INTRODUCTION

The main motto of the restaurant application is to overcome the current problems faced in the regular restaurant while placing the order. So, we come up with this idea to develop the existing software by adding the additional features to this application to overcome the user's problems in day to day life.

1.1.1 LOGO OF APPLICATION

Figure 1 Logo

1.2. EXISTING SOFTWARE

In this existing system the software does not store the customer history data and does not have the check-in saved method i.e, the data storage of previous order in the database.

In the payment method the details will not save when the page is timed out or due to late connectivity issue in the gateway process.

There is no customization facility in the present application as per the user choice hence the user can face some problem while placing the order in the application.

1.3 DISADVANTAGES OF EXISTING SOFTWARE

- NO PREVIOUS DATA STORED
- PAYMENT ISSUES
- CUSTOMIZATION PROBLEM

1.4 SCOPE OF THE PROJECT

We use the development software tools to develop the existing application in order to make the application easier and friendly where user can use it with no issues while placing the order and hence this development in the application which makes the proposed developed model of the project more robust.

CHAPTER-2 APPLICATION OUTPUT

2.1 DEVELOPED SOFTWARE

In this developed software the customer data i.e, previous details and orders can be saved. Then this data can be used for the future enhancement in the data base and the user can customize the order by placing it in the application according to his manner.

In this developed software the order payment method option is of two types: -

1. CHECK-IN PAYMENT METHOD.
2. ONLINE PAYMENT METHOD.

Before getting into the software application there are some of the brief details about the application in a step by step procedure.

2.2 MAIN PAGE

Here is the main page of the application where user and admin need to login with the personal credentials to this page with registered username and password. If the user is using the application for the first time then the user needs to register for the application by clicking on the **CLICK HERE** option which is circled in the black circle on the page. If admin wants to login to add food items and to know the sales details by using **ADMINLOGIN**.

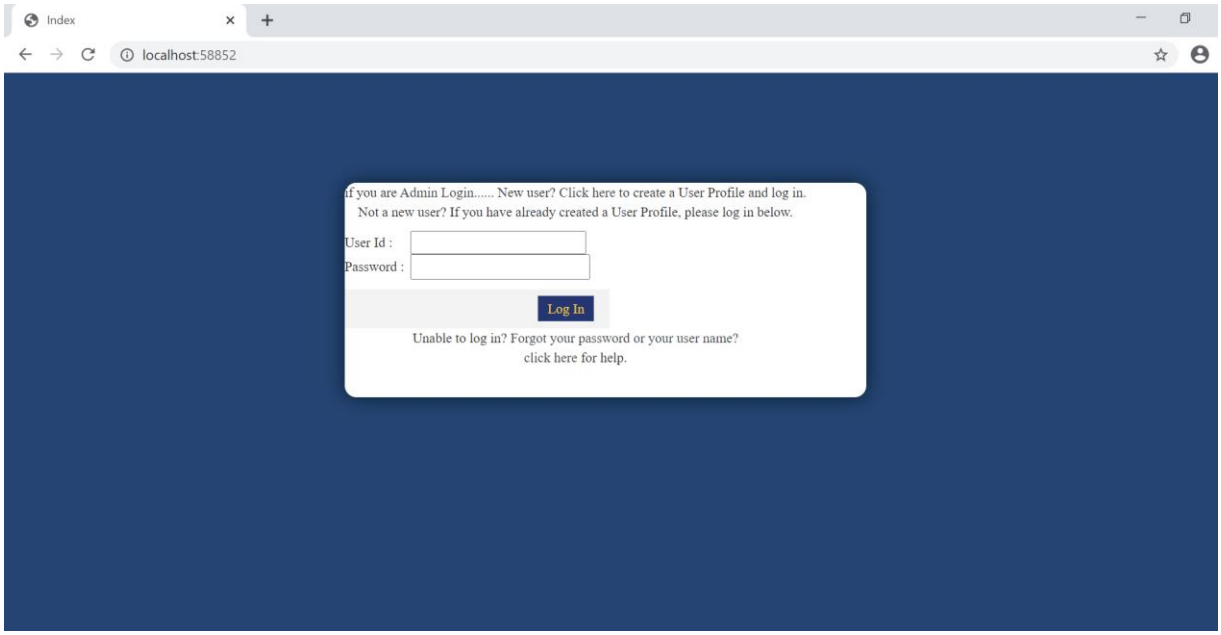

Figure 2 Index Page

2.3 ADMIN PAGE

In the admin page user can login with already defined credentials (Username and Code) from the database once user login to the admin account he can able to add the food items from excel to data base and the same food items user can able to see and order from restaurant. user also can able to check the daily sales.

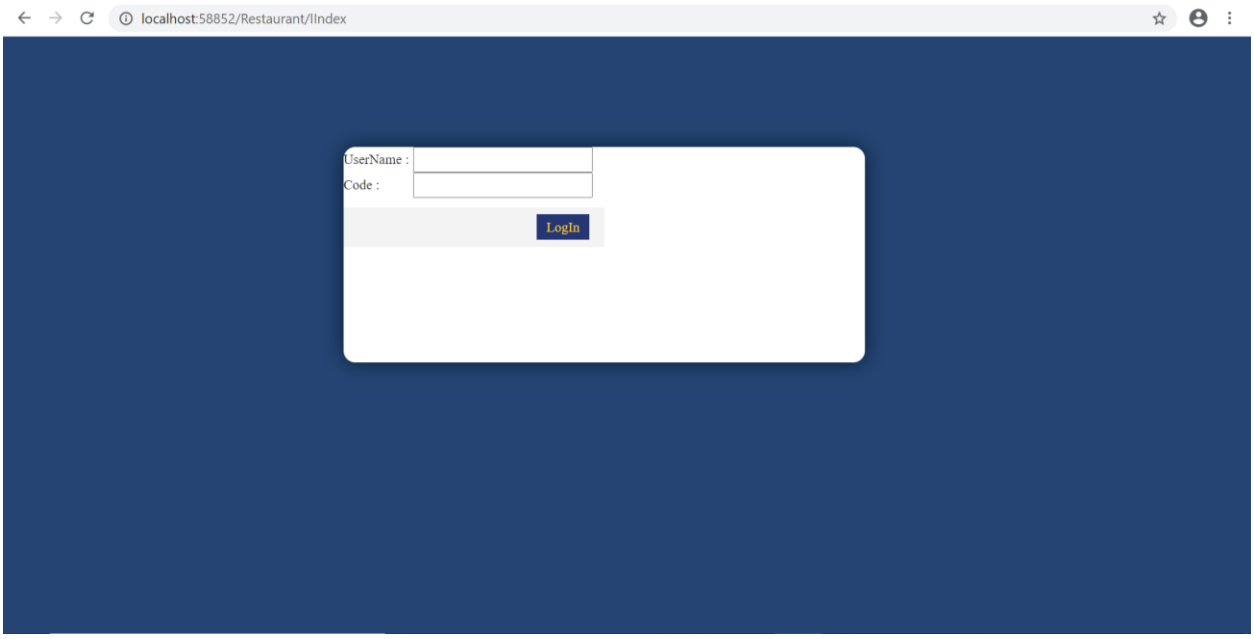

Figure 3 Admin Login

2.3 REGISTRATION PAGE

In this registration page the user need to enter his **MAIL ID**, **PASSWORD** which he needs to login with every time i.e, login details and these details should be secured and username for the login purpose.

Once all the details are entered then the user need to register by clicking on the **REGISTER** button placed at the bottom of the required field.

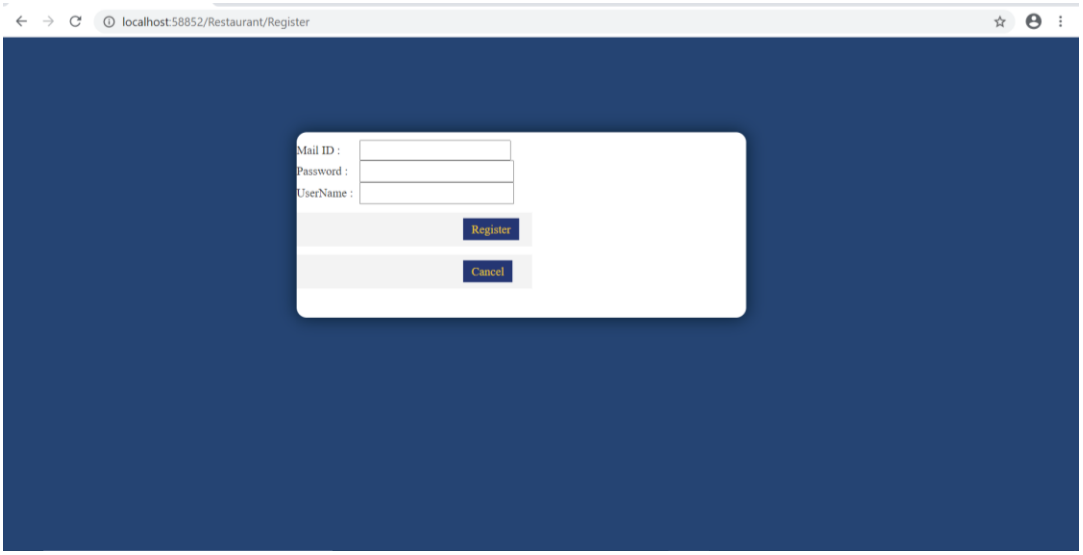

Figure 4 Registration

2.4 LOGIN PAGE

Once the user has registered with the USERNAME & PASSWORD then the user is redirected to the login page i.e, the main page of the application and the user need to login with secret credentials in the application by clicking on the **LOG IN** BUTTON.

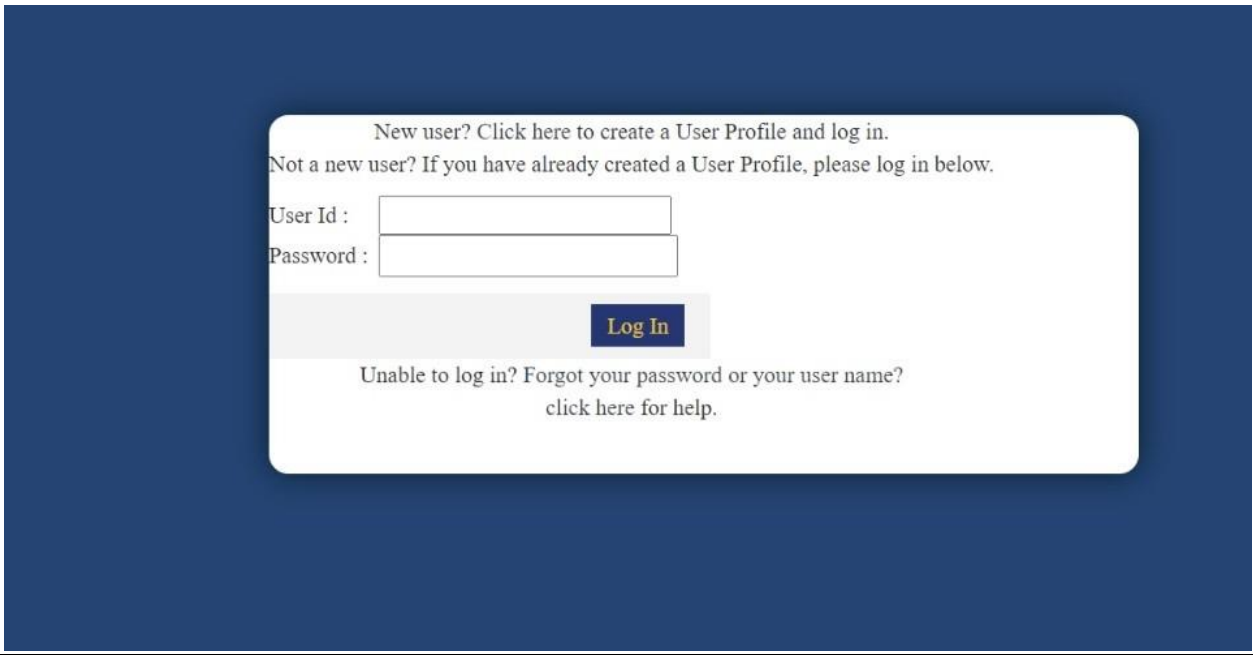

Figure 5 Login Page

2.5 HOME PAGE

Once the user is login with the details then the HOME PAGE appears. In the form of this representation where the customer needs to place his order by selecting the **FOOD ITEMS** on the left side of the column. User can also search the favourite item by clicking the **SEARCH** button which is placed below the food items to order.

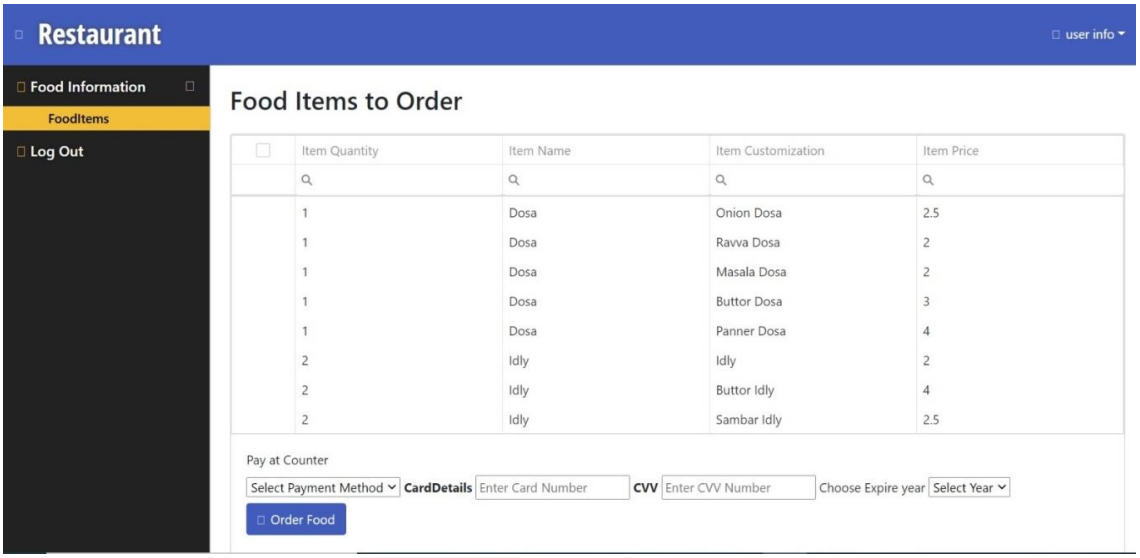

Figure 6 Home Index Page

2.6 SELECTING THE FOOD

In this page we can see in the circled areas where user has selected the required food items in the list by marking them on the left side of the quantity list. Once the list is selected as per the user choice user can proceed to the payment option which is at the bottom of the page.

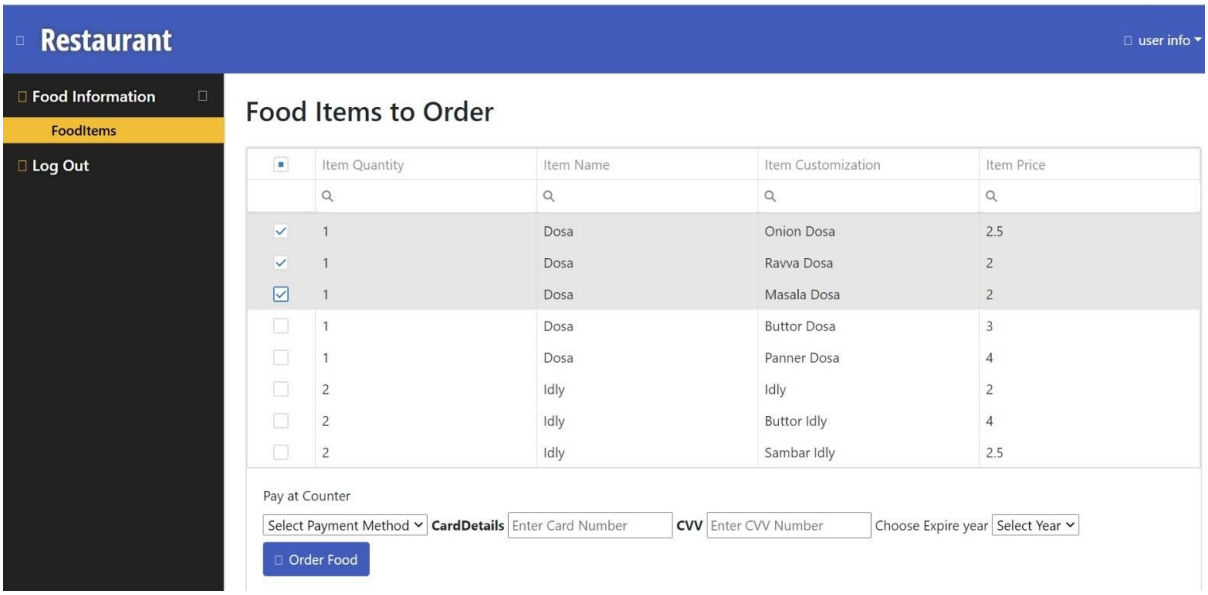

Figure 7 Selecting Items

2.7 PAYMENT METHOD

Once the user has selected the required number of items in the list there is a payment method below at the application. In this payment method user has two methods to make the payment based on his feasibility.

1. COUNTER CHECK-IN
2. ONLINE PAYMENT

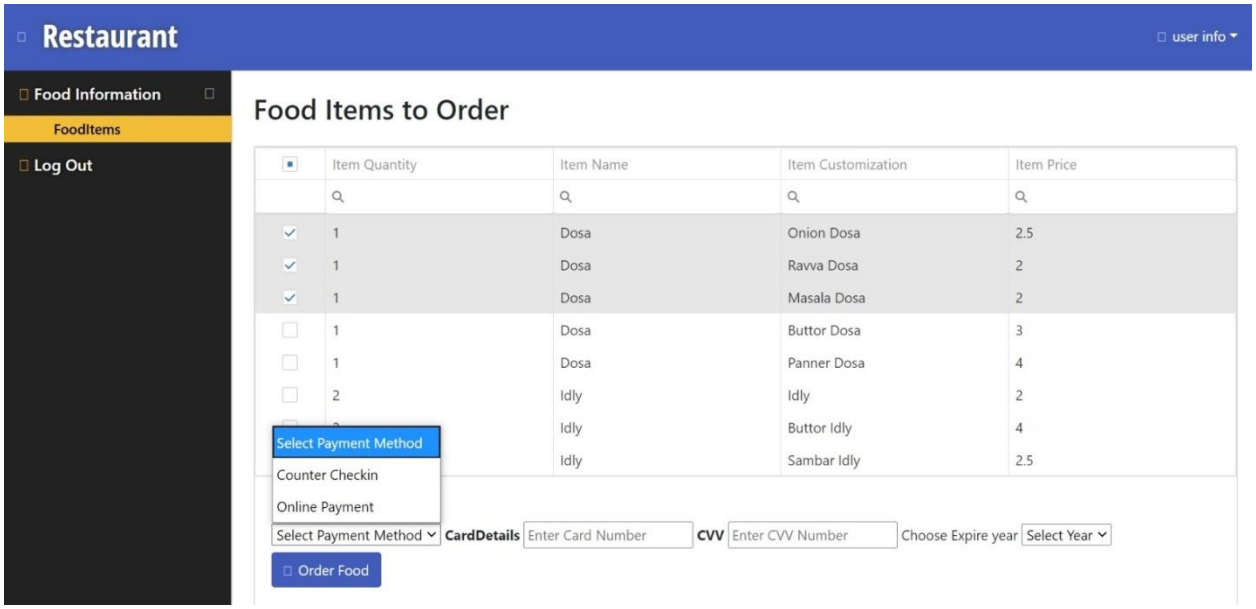

Figure 8 Payment Methods

2.8 COUNTER CHECKIN

In this counter check-in method, the user needs to pay the amount at the desk i.e, to the cashier at the billing counter by showing his **ORDER ID** which can visible at the top of the page.

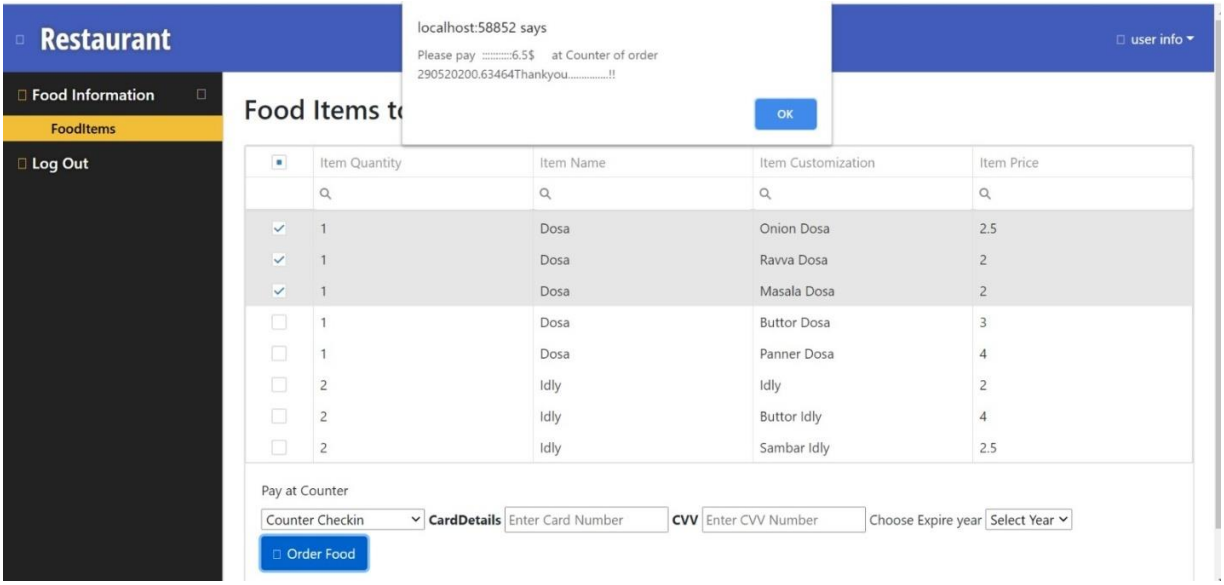

Figure 9 Counter Check-In Order alert

2.9 ONLINE PAYMENT

In this online payment option user need not to pay the amount at the counter. He can pay through the online system by entering his card details at the specified columns and this data will be confidential and secured for their order. The details of the user previous order can be saved In the database in the form of saved list.

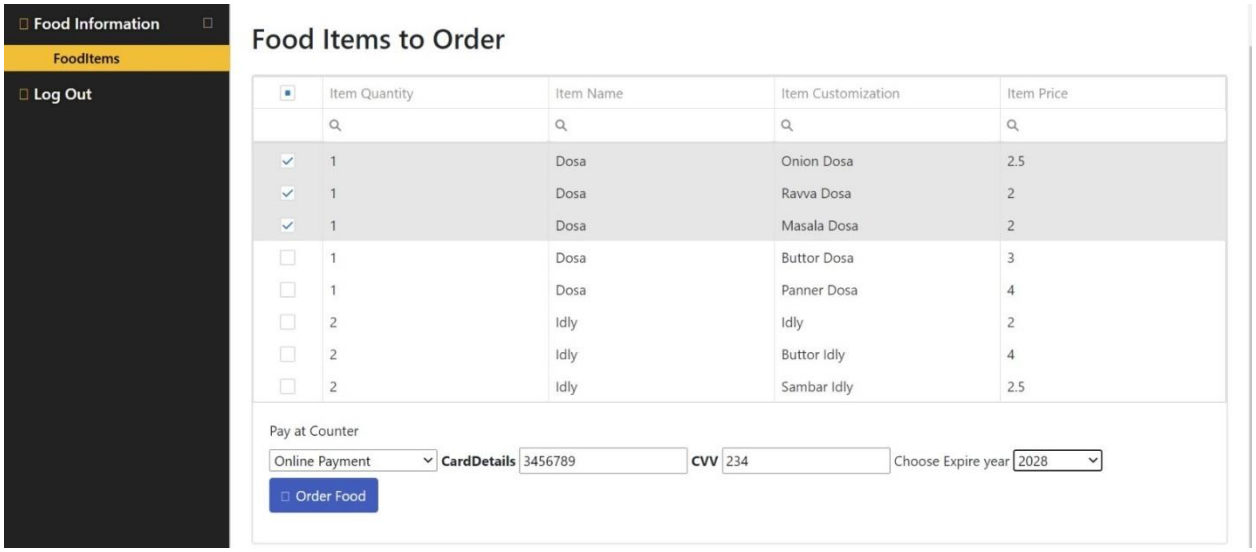

Figure 10 Online Payment Option with Card Details

CHAPTER-3 DESIGN

3.1 UML DIAGRAM

UML is an acronym that stands for Unified Modeling Language. Simply put, UML is a modern approach to modeling and documenting software. In fact, it's one of the most popular business process modeling techniques. It is based on diagrammatic representations of software components. As the old proverb says: "a picture is worth a thousand words". By using visual representations, we are able to better understand possible flaws or errors in software or business processes. UML is a very important part of developing objects-oriented software and the software development process. UML uses mostly graphical notations to express the design of software projects. Using the UML helps project teams communicate, explore potential designs, and validate the architectural design of the software. UML provides variety of documents in addition raw executable codes.

3.2 USE CASE DIAGRAM

A Use case diagram is a graphic depiction of the interactions among the elements of a system. A use case is a methodology used in system analysis to identify, clarify, and organize system requirements.

A use case diagram contains four components.

- The boundary, which defines the system of interest in relation to the world around it.
- The actors, usually individuals involved with the system defined according to their roles.
- The use cases, which the specific roles are played by the actors within and around the system.

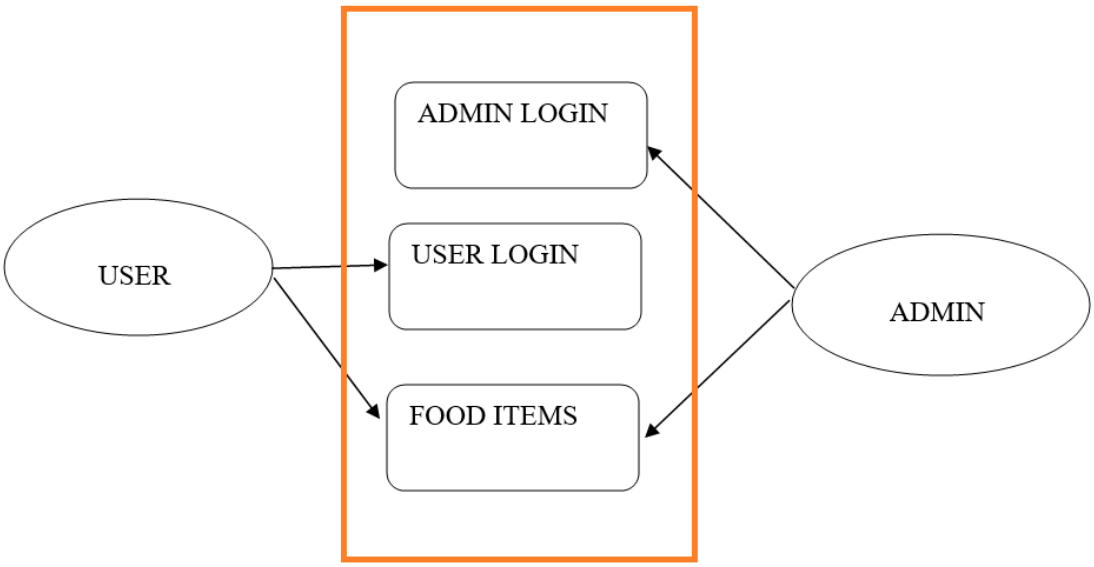

Figure 11 Use Case Diagram

3.3 CLASS DIAGRAM

A class diagram in the Unified Modelling Language (UML) is a type of static structure diagram that describes the structure of a system by showing the system's classes, their attributes, operations (or methods, and the relationships among objects.

The class diagram is the main building block of object-oriented modelling. It is used both for general conceptual modelling of the systematic of the application, and for detailed modelling translating the models into programming code. Class diagrams can also be used for data modelling. The classes in a class diagram represent both the main elements, interactions in the application, and the classes to be programmed

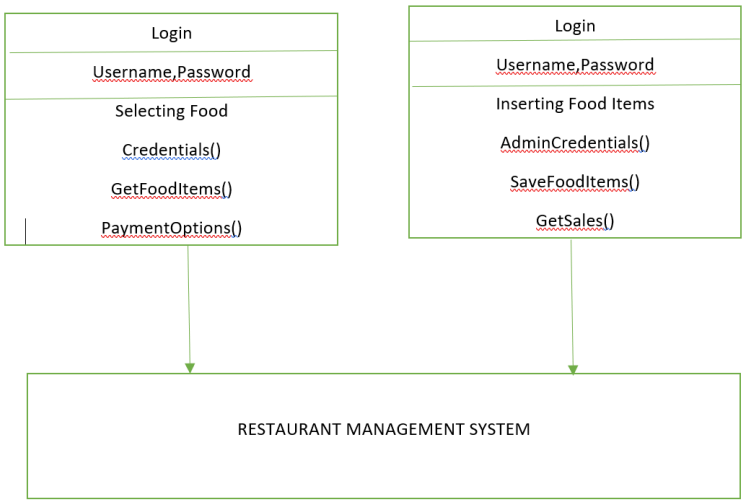

Figure 12 Class Diagram

3.4 STATE DIAGRAM

State diagrams require that the system described is composed of a finite number of states; sometimes, this is indeed the case, while at other times this is a reasonable abstraction. Many forms of state diagrams exist, which differ slightly and have different semantics.

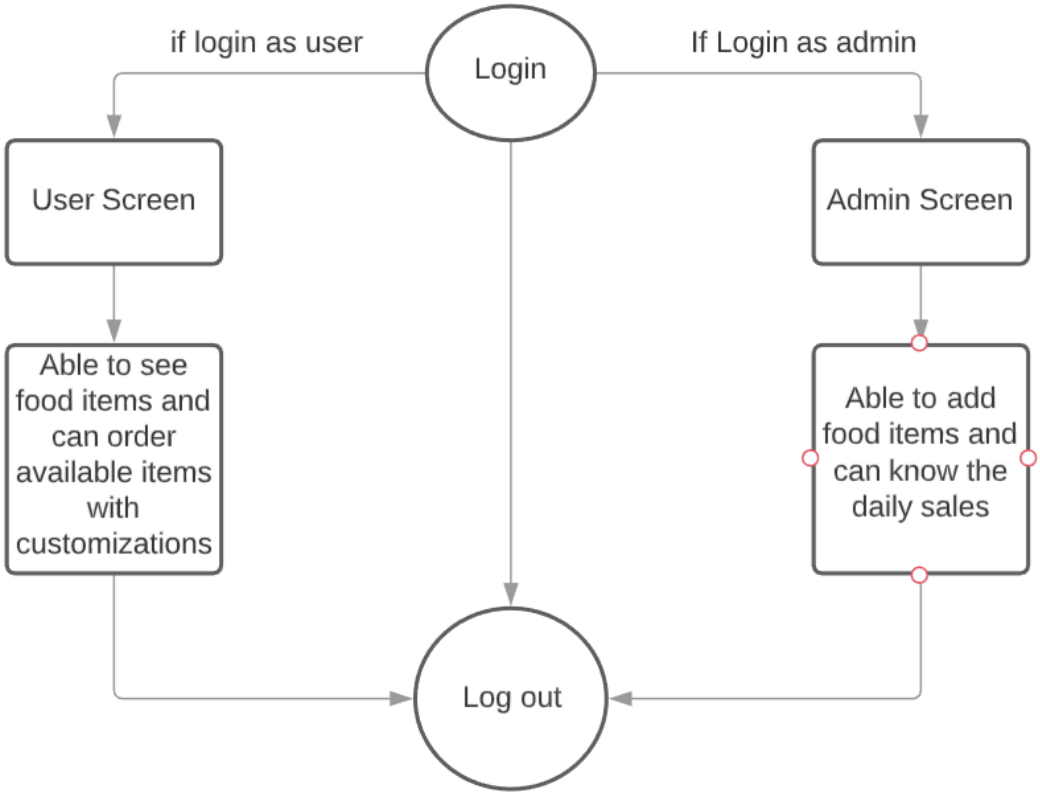

Figure 13 State Diagram

3.5 INTERFACE DIAGRAM

A collaboration diagram resembles a flow chart that portrays the roles, functionality and behavior of individual objects as well as the overall operation of the system in real time. Objects are shown as rectangles with naming labels inside. These labels are preceded by colons and may be underlined. The relationships between the objects are shown as lines connecting the rectangles. The messages between objects are shown as arrows connecting the relevant rectangles along with labels that define the message sequencing.

CHAPTER-4 TOOLS & TECHNOLOGY

4.1 TECHNOLOGY

We have used HTML5 with razor view, CSS for UI designing and jQuery version 11, Ajax technology to communicate with the UI and backend MVC.net code with entity frame work. Microsoft SQL is used to store the username and passwords, orders and price with order numbers so that restaurant management can see the details of each day sales.

Devx Data grids are used to show the food items data so that user can select the items and order.

4.2 HTML

HTML stands for Hypertext Mark-up Language, is the predominant mark-up language for web pages. It provides a means to describe the structure of text-based information in a document by denoting certain text as headings, paragraphs, lists, and so on — and to supplement that text with interactive forms, embedded images, and other objects. HTML is written in the form of labels (known as tags , surrounded by angle brackets. HTML can also describe, to some degree, the appearance and semantics of a document, and can include embedded scripting language code which can affect the behavior of web browsers and other HTML processors. HTML is also often used to refer to content of the MIME type text/html or even more broadly as a generic term for HTML whether in its XML descended form (such as XHTML 1.0 and later or its form descended directly from SGML.

Hyper Text Mark-up Language

Hypertext Mark-up Language (HTML) , the languages of the Worldwide Web (WWW) , allows users to produce Web pages that include text, graphics and pointer to other Web pages (Hyperlinks). HTML is not a programming language but it is an application of ISO Standard 8879, SGML (Standard Generalized Mark-up Language , but specialized to hypertext and adapted to the Web. The idea behind Hypertext is that instead of reading text in rigid linear structure, we can easily jump from one point to another point. We can navigate through the information based on our interest and preference. A mark-up language is simply a series of elements, each delimited with special characters that define how text or other items enclosed with the elements should be displayed. Hyperlinks are underlined

or emphasized works that load to other documents or some portions of the same document. HTML can be used to display any type of document on the host computer, which can be geographically at a different location. It is a versatile language and can be used on any platform or desktop. HTML provides tags (special codes to make the document look attractive. HTML tags are not case-sensitive. Using graphics, fonts, different sizes, colors, etc., can enhance the presentation of the document. Anything that is not a tag is part of the document itself. of a Web page. On the server side, it can be used to write Web server programs that can process information submitted by a Web browser and then update the browser's display accordingly Even though JavaScript supports both client and server Web programming, we prefer JavaScript at Client-side programming since most of the browsers supports it. JavaScript is almost as easy to learn as HTML, and JavaScript statements can be included in HTML documents by enclosing the statements between a pair of scripting tags.

4.3 JAVASCRIPT with AJAX

JavaScript is a script-based programming language that was developed by Netscape Communication Corporation. JavaScript was originally called Live Script and renamed as JavaScript to indicate its relationship with Java. JavaScript supports the development of both client and server components of Web-based applications. On the client side, it can be used to write programs that are executed by a Web browser within the context we can use java script ajax calls to communicate the html and core .net backend language to perform defined operations and to manipulate data.

4.4 SQL

Structured Query Language (SQL) is the language used to manipulate relational databases. SQL is tied very closely with the relational model. In the relational model, data is stored in structures called relations or tables. Defining tables and structures in the database (DDL) used to create, alter

and drop schema objects such as tables and indexes. Used to manipulate the data within those schema objects (DML) Inserting, Updating, Deleting the data, and Querying the database.

A schema is a collection of database objects that can include: tables, views, indexes and sequences.

4.5 TOOLS

Microsoft Visual Studio 2017

Figure 14 Visual Studio

CHAPTER-5

5.1 FUTURE DEVELOPMENT

In this developed application for the future enhancement we would like to add many other features for the ease of mankind.

1. Based on previous orders the application can suggest the food items which are favourable to the users and the items which are in offer price.
2. In the payment section where user no need to have the amount to order the food items based on his SCENE POINTS user can order the food.

CHAPTER-6

6.1 WORK DISTRIBUTION

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Vinay Reddy(1993998)

HTML

Dinesh Reddy(2091502)

SQL query, Documentation

CHAPTER-7

7.1 CONCLUSION

In this application, we propose a robust software development application where the application incorporates with developed software features to the user where there will be no issues while placing the order in the application. More over the developed software is user friendly.