

**VISVESVARAYA TECHNOLOGICAL UNIVERSITY  
BELAGAVI – 590018**



**A Project Report on**

**“CANTEEN FOOD ORDERING AND MANAGING SYSTEM”**

**Submitted in partial fulfillment of the requirements for the degree of  
BACHELOR OF ENGINEERING**

**IN  
COMPUTER SCIENCE & ENGINEERING**

**Subject: PROJECT WORK [18CSP85]**

**Submitted By**

<b>ADON BIJU</b>	<b>4JK18CS001</b>
<b>AMAL KURIAKOSE</b>	<b>4JK18CS006</b>
<b>AMAL MATHEW</b>	<b>4JK18CS007</b>
<b>JISMON M U</b>	<b>4JK18CS025</b>

**Under the guidance of**

**Mr. Chanchal Antony**

**Associate Professor**

**Department of Computer Science & Engineering**



---

**DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING**

**A. J. INSTITUTE OF ENGINEERING & TECHNOLOGY**

**NH-66, KOTTARA CHOWKI, MANGALURU – 575006**

**2021 - 2022**

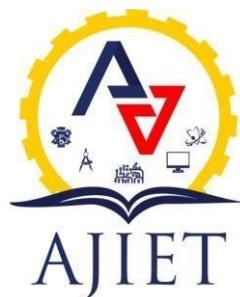
# A. J. INSTITUTE OF ENGINEERING & TECHNOLOGY

NH – 66, Kottara Chowki, Mangaluru - 575006

A Unit of Laxmi Memorial Education Trust (R)

(Affiliated to Visvesvaraya Technological University, Belagavi & Approved by AICTE, New Delhi)

## DEPARTMENT OF COMPUTER SCIENCE & ENGINEERING



### CERTIFICATE

Certified that the project work entitled "**CANTEEN FOOD ORDERING AND MANAGING SYSTEM**" is a bonafide work carried out by Mr. **ADON BIJU**, with USN: **4JK18CS001**, Mr. **AMAL KURIAKOSE**, with USN: **4JK18CS006**, Mr. **AMAL MATHEW**, with USN: **4JK18CS007**, Mr. **JISMON M U**, with USN: **4JK18CS025**, in partial fulfillment for the award of **Bachelor of Engineering in Department of Computer Science & Engineering** of the **Visvesvaraya Technological University, Belagavi** during the year 2021-2022. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the Report deposited in the departmental library.

The project report has been approved as it satisfies the academic requirements in respect of Project work prescribed for the said Degree.

---

**Mr. Chanchal Antony  
(Project Guide)**

---

**Dr. Antony P J  
(Head of the Department)**

---

**Dr. Shantharama Rai C  
(Principal)**

### Examiners

1.

2.

**Signature with Date**

## **ACKNOWLEDGEMENT**

We have immense pleasure and pride in expressing our heartfelt thanks to our project guide **Mr. Chanchal Antony**, Associate Professor in Department of Computer Science and Engineering, whose guidance was indispensable and of vital importance behind the success of our project.

We would like to extend our gratitude to our project coordinator **Ms. Nikhila G** Assistant Professor, Department of Computer Science and Engineering, for the encouragement in completing the project.

With due respect, we thank our beloved HOD, **Dr. Antony P J**, Department of Computer Science and Engineering, for his coordination, suggestion and moral support on the course of our project work.

We consider it our pleasure to extend our gratitude to our beloved principal **Dr. Shantharama Rai C** for providing us the facilities to carry out our project work.

We consider it our honor to place on record our warm salutation to this wonderful institution **A J Institute of Engineering and Technology** and the management **Laxmi Memorial Education Trust** for providing us with an opportunity to have a strong base in engineering and profound technical knowledge, thereby enabling us to attain our long-cherished goal of becoming Computer Science Engineers.

We would like to thank our teaching and non-teaching staff for their support and encouragement. Also special thanks to our parents for providing us assistance, constant support and encouragement throughout.

<b>ADON BIJU</b>	<b>4JK18CS001</b>
<b>AMAL KURIAKOSE</b>	<b>4JK18CS006</b>
<b>AMAL MATHEW</b>	<b>4JK18CS007</b>
<b>JISMON M U</b>	<b>4JK18CS025</b>

## **ABSTRACT**

Nowadays people don't have much time spend in canteen by just there and waiting for the food. Sometimes they will not get food because of insufficient food. The project canteen food ordering and managing system helps the users to book their food earlier. As soon as they book their food the order will be sent to the chef for preparing it. The present system consists of the manual system that involves the paper work of the billing system and maintaining the files too. In the proposed system the payment is online and the e-menu will be available for the user. The users will have the username and the password through which they can book. This project will help in demonstrating the route from adapting materials to developing an online environment. This brings all necessities in one place that benefits both the user and the canteen owners smartly.

# CONTENTS

<b>ACKNOWLEDGEMENT .....</b>	<b>iii</b>
<b>ABSTRACT .....</b>	<b>iv</b>
<b>1. INTRODUCTION.....</b>	<b>1</b>
1.1 Purpose .....	1
1.2 Scope .....	2
<b>2. Literature Survey .....</b>	<b>3</b>
<b>3. SOFTWARE REQUIREMENTS AND OUTCOMES.....</b>	<b>7</b>
3.1 Functional Requirements.....	7
3.2 Hardware Requirements .....	7
3.3 Software Requirements.....	7
3.4 Software's Used.....	7
3.4.1 Visual Studio Code.....	7
3.4.2 HTML5.....	8
3.4.3 CSS.....	8
3.4.4 Bootstrap .....	8
3.4.5 Javascript.....	8
3.4.6 jQuery .....	8
3.4.7 Ajax .....	9
3.4.8 Handlebars(Hbs).....	9
3.4.9 Node.js.....	9
3.4.10 Express.js.....	9
3.4.11 Mongo DB .....	10
<b>4. PROBLEM STATEMENT.....</b>	<b>11</b>
4.1 Objectives.....	11
4.2 Expected Outcomes .....	11
<b>5. SYSTEM DESIGN .....</b>	<b>12</b>
5.1 Flow Diagram.....	12
<b>6. IMPLEMENTATION.....</b>	<b>15</b>
6.1 Modules .....	15
6.1.1 Login .....	15
6.1.2 Add Food Items .....	15
6.1.3 Dashboard.....	16
6.1.4 View/Edit/Delete Items .....	16
6.1.5 View Orders .....	17
6.1.6 View Transactions .....	17

6.1.7 Add category .....	17
6.1.8 Edit or Delete Category.....	18
6.1.9 Manage User .....	18
6.1.10 View Users .....	19
6.1.11 Order Report.....	19
6.1.12 Login and Registration .....	19
6.1.13 Login With Otp .....	20
6.1.14 Profile Settings .....	21
6.1.15 Menu List .....	22
6.1.16 Item Details .....	22
6.1.17 View Cart .....	22
6.1.18 Payment.....	23
6.1.19 Review.....	24
6.1.20 View Order and Status .....	24
<b>6.2 NPM MODULES .....</b>	<b>25</b>
6.2.1 Razorpay .....	25
6.2.2 Twilio .....	25
6.2.3 Bcrypt .....	25
6.2.4 fs .....	26
6.2.5 Session .....	26
6.2.6 Express-fileupload.....	26
6.2.7 DotEnv .....	26
6.2.8 Moment .....	26
6.2.9 MongoDB .....	26
6.2.10 Express-handlebars.....	27
6.2.11 connect-mongo .....	27
<b>7. TESTING .....</b>	<b>28</b>
7.1 Unit Testing.....	29
7.2 System Testing .....	31
<b>8. RESULTS AND DISCUSSION.....</b>	<b>34</b>
8.1 Snapshots.....	34
<b>9. CONCLUSION AND FUTURE WORK.....</b>	<b>53</b>
9.1 Conclusion.....	53
9.2 Future Work .....	53
<b>REFERENCES .....</b>	<b>54</b>

## **LIST OF FIGURES**

Figure 5.1: System Design.....	12
--------------------------------	----

## **LIST OF TABLES**

Table 7.1: Table showing the testing results of Sign-in/Login Module.....	29
Table 7.2: Table showing the testing results of Register Module .....	29
Table 7.3: Table showing the testing results of Add food Items Module.....	30
Table 7.4: Table showing the testing results of Edit/Delete Items Module.....	30
Table 7.5: Table showing the testing results of Food Adding to Cart .....	30
Table 7.6: Table showing the testing results of Payment Module.....	31
Table 7.7: Table showing the testing results of user interface... .....	32
Table 7.8: Table showing the testing results of admin application.....	33

## SNAPSHOTS

Snapshot 6.1: Code Snippet For Login .....	15
Snapshot 6.2: Code Snippet For Dashboard .....	15
Snapshot 6.3: Code Snippet For Adding Food Items .....	16
Snapshot 6.4: Code Snippet For Viewing Food Items .....	16
Snapshot 6.5: Code Snippet For Editing Food Items .....	16
Snapshot 6.6: Code Snippet For Deleting Food Items .....	17
Snapshot 6.7: Code Snippet For Viewing Orders .....	17
Snapshot 6.8: Code Snippet For Viewing Transactions .....	17
Snapshot 6.9: Code Snippet For Adding Category .....	17
Snapshot 6.10: Code Snippet For Editing Category .....	18
Snapshot 6.11: Code Snippet For Deleting Category .....	18
Snapshot 6.12: Code Snippet For Managing Users.....	18
Snapshot 6.13: Code Snippet For Viewing Users .....	19
Snapshot 6.14: Code Snippet For Order Report.....	19
Snapshot 6.15: Code Snippet For Registration .....	19
Snapshot 6.16: Code Snippet For Login .....	20
Snapshot 6.17: Code Snippet For OTP as Call .....	20
Snapshot 6.18: Code Snippet For OTP as SMS .....	21
Snapshot 6.19: Code Snippet For Changing The Profile Settings .....	21
Snapshot 6.20: Code Snippet For Menu List .....	22
Snapshot 6.21: Code Snippet For Item Details .....	22
Snapshot 6.22: Code Snippet For Viewing Items In Cart .....	22
Snapshot 6.23: Code Snippet For Online Payment Gateway .....	23
Snapshot 6.24: Code Snippet For Online Payment And COD .....	23
Snapshot 6.25: Code Snippet For Writing Review .....	24
Snapshot 6.26: Code Snippet For Order Ready Confirmation SMS .....	24
Snapshot 6.27: Code Snippet For Delivery Confirmation SMS .....	25
Snapshot 8.1: Sign up Page .....	34
Snapshot 8.2: Login Page(using email and password).....	35
Snapshot 8.3: Login Page(using phone number) .....	36
Snapshot 8.4: Profile .....	37
Snapshot 8.5: Home Page.....	38
Snapshot 8.6: Breakfast Section .....	39

Snapshot 8.7: Lunch Section.....	40
Snapshot 8.8: Snacks Section.....	41
Snapshot 8.9: Drinks Section .....	42
Snapshot 8.10: Details Section.....	43
Snapshot 8.11: Cart .....	44
Snapshot 8.12: checkout.....	45
Snapshot 8.13: Payment Option .....	45
Snapshot 8.14: Order History .....	46
Snapshot 8.15: Review .....	47
Snapshot 8.16: Change Password.....	48
Snapshot 8.17: Admin Login .....	48
Snapshot 8.18: All User Details Section .....	49
Snapshot 8.19: Food Item Details .....	49
Snapshot 8.20: Add Food Items .....	50
Snapshot 8.21: All Order Details.....	50
Snapshot 8.22: Category Manager.....	51
Snapshot 8.23: Dashboard .....	51
Snapshot 8.24: Order Report.....	52

## **CHAPTER 1**

### **INTRODUCTION**

The Canteen Food Ordering and Managing System contains the e-menu cards that contain the details of the food. The user initially has to create an account for the utilization of the service. It will provide the list of various items in menu list. The customer can select the desired item and can pay the amount through online payment gateway system. Immediately after booking the order, the canteen people will get the information of the order and they prepare the order. In the existing system there will be queues and the manual work load will be there. In the proposed system there is no need for the paper-work. The data can be stored in the database. The food will be ready in advance and the customers need not to wait near the delivery place. The digitalization of the canteen system will be helpful in providing the better service to the users and the time consumption will be reduced. The updation and deletion of any item can be done by admin. At last the user's feedback will be taken to improve the service and to make it available to everyone. The online system will help be helpful for the food makers to prepare the food as early as possible. As a result there will be quick serving to the customers. No queues can be formed for waiting of the food. The updation of the data to the database will be monitored by the admin. The user's data like recognizing the regular users to the canteen will be done and sent to the database. The security of data is done by the encrypted format and server databases of the institution.

#### **1.1 Purpose**

This Canteen Food Ordering and Managing System is the system where customers order their food and receive food in the canteen without any delay as they can directly go and collect what they ordered without waiting for a turn or waiting time. This system aims to accelerate customer orders and customer order system used by employees to accept customer order.

The proposed “Canteen Food Ordering and Managing System” is economically feasible because:

- The system requires very fewer time factors as compared to manual system
- The system will provide fast and efficient automated environment instead of slow and error prone manual system, thus reducing both the time and manpower spent in running the system.
- The system will have user interface and very less user training is required to learn it.

### 1.2 Scope

The scope of this project is limited to designing and implementation a web-based canteen food ordering and managing system helpful for the food makers to prepare the food as early as possible. As a result there will be quick serving to the customers. No queues can be formed for waiting of the food. The updation of the data to the database will be monitored by the admin. The user's data like recognizing the regular users to the canteen will be done and sent to the database. This web application reduce the manual work for managing the Canteen, Bill Payment and Meal. It tracks all the details about the Canteen Meal and it's type.

## **CHAPTER 2**

### **LITERATURE SURVEY**

Joseph George, Sreenath P, Siddharth K G, et al.[1] proposed a research paper “Food Ordering Application for Canteen”. The proposed system mainly deals with ordering food from canteen online. The main feature of this application is that any user can order food online, make the payment online, and also generate QR code after successful payment. Monik Shah, Shalin Shah, Mohd Danish Shaikh, et al.[2] has proposed "Canteen Automation System". The main goal of this application is to make operations of a canteen online. The main features of this Canteen automation system is that user can choose the food online and also can make the payment also online using an android phone and the user can also order special combo box that contains multiple food items. A Gowthami, T Banupriya, E Vadivukkarasi [3] has proposed "Mobile Application For Canteen Automation System Using Android". The proposed system enables the user to register online, select and order the food from the E-menu card. The result after choosing the food from the E-menu card will directly seem on the screen near the chef. The gadget is the mixture of android as nicely as internet application.

Kowshik reddy, Sumanth, Ashik Teja, et al.[4] has proposed “Online Canteen System”. In the proposed system the payment is online and the e-menu will be available for the user. The users will have the username and the password through which they can book. The user can also give feedback after ordering the food. M. Ambika, Saravana Kumar R, Sandhya S Nair, et al.[5] proposed research paper on “Cashless Canteen Management System”. The main aim of the proposed system is to automate the existing traditional system which is manual, with the support of computerized equipment and full featured computer applications. The System enables searching facilities based on various factors. Such as Canteen, Orders, Products, Quantities, Report and Users. It manages and generates the report of sales of the products. Shourya Pradhan, Shubham Jain, Shubhanshu Pratap Singh, et al.[6] has proposed “Canteen Management App”. The proposed system enables the end users to register online, read and select the food from e-menu card and order food online by just selecting the food that the user want to have using android application. The results after selecting the food from the E-menu card will directly appear in the screen near the Chef who is going to cook the food for you. The system is the combination of Android as well as Web Application.

Shaina Carl , Tanmay Parulekar , Aishwarya Sedamkar , et al.[7] had proposed “Cross Platform Application for Canteen Food Ordering System”. The proposed application can be used by staff/students to place orders from anywhere irrespective of the platform on their devices. It enables the users to register online, view and select food items from the available menu and order food by just selecting the food that the user wants to have using the application. The canteen database will be updated after selecting the desired food from the menu card and it will be displayed directly on the canteen screen. The user will have a username and a password, by using which he/she can log in to the system. Payments for the orders placed can be done online through the application. Fayaz Karedia, Pranit Hule, Shariq Memon, et al.[8] has explained “Canteen Automation System Using Android” .The proposed system enables the end users to register online, read and choose the food from e-menu card and order food online by just choosing the food that the user want to have using android application. The results after selecting the food from the E-menu card will directly get displayed on the screen near the Chef who is going to cook the food for you. The application is the combination of Android as well as Web Application Basically the project describes how to manage for good performance and better services for the clients. Trupthi B, Rakshitha Raj R, J B Akshaya, et al.[9] has proposed “Online Food Ordering System” .The proposed system shows an user interface and update the menu with all available options so that it eases the customer work. Customer can choose more than one item to make an order and can view order details before logging off. The order confirmation is sent to the customer. The order is placed in the queue and updated in the database and returned in real time. This system assists the staff to go through the orders in real time and process it efficiently with minimal errors.

Tanish, Simran Choudhary, Shivam Chaudhary [10] has proposed "Canteen Automation System". This Application enables the end users to register online, read and select the food from e-menu card and order food online by just selecting the food that the user wants to have used android application. The User can also order a Special Combo Box which contains multiple food items. Within this application, all items in the order are displayed, along with their corresponding options, prices, quantities and delivery details, in a concise, proper and easy to read manner. Shreya Mhalgi, Prajakta Marne, Mahesh Kulkarni, et al.[11] has explained "Cloud based Android App for college Canteen Management System". In this proposed system, the students will register on the app with unique email-id and will be able to access the app after admin approval, after successful login menu card will be displayed. User can now browse through the menu and add the required food items to the cart. The application also provides the

facility to search the required food item in the menu card and adding it to cart. The order gets confirmed after completion of the payment process through the e-wallet. The user receives an acknowledgement for the placed order. The user has the privilege to cancel the placed order within specified time limit for example within 5 minutes after placing the order. Ann Janeth Garcia Danielle Jaye Agron and Wansu Lim [12] has proposed "Android Application in Food Ordering System". In this paper, The proposed system is divided into two complementary android applications. The device A is designed to be interactive with the user because this displays the set of menu identically patterned to what the cafeteria is offering, hence the application considered organizing the menu by sub-categorizing the list of dishes that user can effortlessly select their choice of meal afterwards, the customer can adjust the quantity to purchase. Device B utilize the phone's camera to scan the barcode for the application to decrypt the information by processing the image using the application developed the researchers. The scanned barcode would contain the summary of order made on device A.

Prashant Avhad, Harsh Bhanushali, Keval Bhatt, et al.[13] has proposed research paper on "Canteen Automation System with Payment Gateway". The proposed system will maintain, manage and process orders of customers in a speedy way using a website and its stored database. The user will login into the website and select the order and place it after confirmation and proceed towards making payment, the payment can be done completely online. M Mukesh Krishnan, Avudaiappan S, Mohamed Anees S, et al.[14] has proposed "Canteen Food Ordering System and Management". The proposed system enables the end users to register online, read and select the food from e-menu card and order food online by just selecting the food that the user want to have using mobile application. The results after selecting the food from the E-menu card will directly appear on the screen near the Chef who is going to cook the food for you. The system also provide features like voice ordering and report generation for admin. Akash Katkar, Kalpesh Juvekar, Nitin Rohira, et al.[15] has proposed "Canteen management system using the E-wallet". In this proposed system, There are two ways of placing an order, through the online ordering feature or through the canteen counter. The online ordering feature shall be available to users who log in only and have a valid balance in their E-wallet. The counter ordering facility shall be available only to the administrator through administrator login. There are two modes of payment, E-wallet, and Cash. Online orders can be paid only through E-wallet. The E-wallet payment can be used at the counter also. Cash payment option is also present at the counter The items of a placed order shall be displayed on the screens in the kitchen which indicate the cooks to prepare the items. When the order is delivered its status is

## **Canteen Food Ordering and Managing System**

---

updated. When the status of the order is updated to “COMPLETE” it goes off the screen. Corresponding Text Alerts are sent to the customer throughout the process.

## CHAPTER 3

# SYSTEM REQUIREMENTS AND OUTCOMES

### 3.1 Functional Requirement

Local Storage: Browser local storage is required as storage unit.

### 3.2 Hardware Requirements

- Processor: 2.4 GHz above
- Speed: 2.10GHz
- RAM: 4.00 GB Minimum
- Space on disc: 20 GB Minimum

### 3.3 Software Requirements

- Operating System: Windows
- IDE: Visual Studio Code
- Front End: HTML, CSS, Bootstrap, JavaScript, jQuery, Ajax, Handlebars(Hbs)
- Back End: Node.Js, Express.Js.
- APIs: Razorpay, Twilio
- Database: MongoDB

### 3.4 SOFTWARE'S USED

#### 3.4.1 Visual Studio Code

Visual Studio includes a code editor supporting IntelliSense as well as code refactoring. The integrated debugger works both as a source-level debugger and a machine-level debugger. Other built-in tools include a code profiler, , web designer, class designer, and database schema designer. It accepts plug-ins that expand the functionality at almost every level—including adding support for source control systems (like Subversion and Git) and adding new toolsets like editors and visual designers for domain-specific languages or toolsets for other aspects of the software development lifecycle (like the Azure DevOps client: Team Explorer). The most basic edition of Visual Studio, the Community edition, is available free of charge. The slogan for Visual Studio Community edition is "Free, fully-featured IDE for students, open-source and individual developers". As of March 2021, the current production-ready Visual Studio version was 2019, with older versions such as 2012 and 2013 on Extended Support, and 2015 and 2017 on Mainstream Support On April 12, 2010, Microsoft released Visual Studio 2010

### 3.4.2 HTML5

HTML known as Hyper Text Markup Language version 5, the authoring language used to create documents on the World Wide Web. HTML defines the structure and layout of a Web document by using a variety of tags and attributes. Theme or plugin does exactly what you need it to do, and looks almost exactly how you need it to look. But still, you wish it would look slightly different. For this reason, HTML was used. HTML tags were used in posts, pages, sidebar text widgets to code a hyperlink by hand, or adjust the header sizes.

### 3.4.3 CSS

CSS stands for Cascading Style Sheets version 3. It describes how HTML elements are to be displayed on screen or in other media. In this project, additional CSS was used when further customization on the site was required. Sometimes, the theme does not work as per the requirement of the user so to meet the requirement of the user additional CSS was used. To addin the icons, to scale the logo properly, change the font size of the specified content, to add a specific callout box, or style just a section of a post differently CSS was used. The theme option does provide certain features but to add the features according to the client's requirement additional CSS was applied.

### 3.4.4 Bootstrap

Bootstrap is a free and open-source front end development framework for the creation of websites and web apps. The Bootstrap framework is built on HTML, CSS, and JavaScript (JS) to facilitate the development of responsive, mobile-first sites and apps. Responsive design makes it possible for a web page or app to detect the visitor's screen size and orientation and automatically adapt the display accordingly; the mobile first approach assumes that smartphones, tablets and task-specific Mobile apps are employees' primary tools for getting work done and addresses the requirements of those technologies in design. Bootstrap includes user interface components, layouts and JS tools along with the framework for implementation. The software is available precompiled or as source code.

### 3.4.5 JavaScript

JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. Where HTML and CSS are languages that give structure and style to web pages, JavaScript gives web pages interactive elements that engage a user. Common examples of JavaScript that you might use every day include the search box on Amazon, a news recap video embedded on The New York Times, or refreshing your Twitter feed.

### 3.4.6 jQuery

jQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax. It is free, open-source software using the permissive MIT License. As of May 2019, jQuery is used by 73% of the 10 million most popular websites. Web analysis indicates that it is the most widely deployed JavaScript library by a large margin, having at least 3 to 4 times more usage than any other JavaScript library.

jQuery's syntax is designed to make it easier to navigate a document, select DOM elements, create animations, handle events, and develop Ajax applications. jQuery also provides capabilities for developers to create plug-ins on top of the JavaScript library. This enables developers to create abstractions for low-level interaction and animation, advanced effects and high-level, theme-able widgets. The modular approach to the jQuery library allows the creation of powerful dynamic web pages and Web applications.

### 3.4.7 Ajax

AJAX stands for Asynchronous JavaScript and XML. AJAX is a new technique for creating better, faster, and more interactive web applications with the help of XML, HTML, CSS, and Java Script. AJAX is the most viable Rich Internet Application (RIA) technology so far. It is getting tremendous industry momentum and several tool kit and frameworks are emerging. But at the same time, AJAX has browser incompatibility and it is supported by JavaScript. It helps in creating better, faster, and more interactive web applications.

### 3.4.8 Handlebars (Hbs)

Handlebars is a simple templating language. It uses a template and an input object to generate HTML or other text formats. Handlebars templates look like regular text with embedded Handlebars expressions. Handlebars is a logic-less templating engine that dynamically generates your HTML page. It's an extension of Mustache with a few additional features. The most important use of Handlebars, and any templating engine, is to keep your HTML pages simple and clean and decoupled from the logic-based JavaScript files, and Handlebars serves this purpose well. Indeed, Dust.js is also a logic-less templating engine and a worthy alternative to Handlebars.

### 3.4.9 Node.js

Node.js is an open-source, cross-platform, back-end JavaScript runtime environment that runs on the V8 engine and executes JavaScript code outside a web browser. Node.js is primarily used for non-blocking, event-driven servers. It's used for traditional web sites and back-end API services, but was designed with real-time, push-based architectures in mind. Node.js is not a programming language. It's a runtime environment that's used JavaScript outside the browser.

### 3.4.10 Express.js

Express.js, or simply Express, is a back-end web application framework for Node.js, released as free and open-source software under the MIT License. It is designed for building web applications and APIs. It has been called the de facto standard server framework for Node.js. Express is a popular unopinionated web framework, written in JavaScript and hosted within the Node.js runtime environment. This module explains some of the key benefits of the framework, how to set up your development environment and how to perform common web development and deployment tasks.

### 3.4.11 MongoDB

MongoDB is a document-oriented NoSQL database used for high volume data storage. Instead of using tables and rows as in the traditional relational databases, MongoDB makes use of collections and documents. Documents consist of key-value pairs which are the basic unit of data in MongoDB. Collections contain sets of documents and function which is the equivalent of relational database tables. MongoDB is a database which came into light around the mid-2000s.

## **CHAPTER 4**

### **PROBLEM STATEMENT**

The challenges encountered by manual system in canteens is efficiency and customer satisfaction. Customers have to make long queues before placing the order and when the order is placed they have to wait near the counter until the order is prepared. After considering the need, Canteen food Ordering and managing is a project that will help customers to order food from anywhere and make payments online and help them overcome the limitations of the current canteen system.

#### **4.1 Objectives**

The general objective of this project is to develop a system that will provide:

- Easy and user-friendly system.
- Helpful for customers to order the food and make payment online.
- A system which can help customers to overcome long queues.
- A simple system which can automate the process inside the canteen.

#### **4.2 Expected Outcomes**

- Instead of visiting the Canteen and ordering food, now you can directly place an order from your website.
- The available food with its respective prices will be displayed, now you can order your food with more comfort and ease.
- After choosing the dishes, it's time to add your favorite ones to the cart. As soon as the food appear in the cart, the amount will be displayed respective to the added items.
- The next step is to finalize the order by entering your name, other necessary information. Then you need to pay the amount for the ordered food.
- Within a few minutes, your order will be confirmed and you will be notified about the same. It will help your order to be prepared on a priority basis.

## CHAPTER 5

# SYSTEM DESIGN

### 5.1 FLOW DIAGRAM

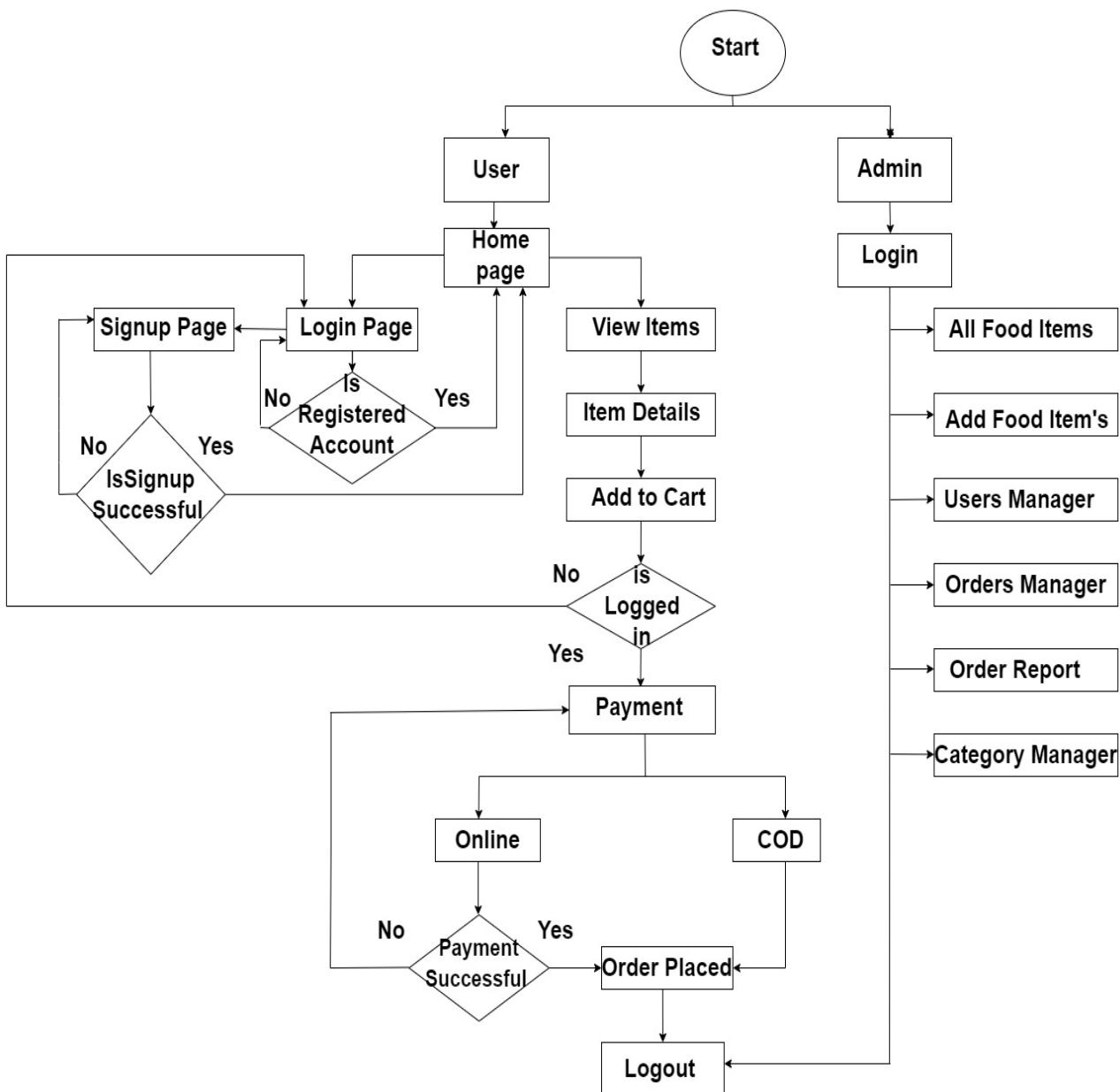


Figure 5.1: System Design

- This is a dynamic website for customers to order food by saving their time and make a contactless payment to ensure their safety.
- In this project we have both user interface and admin interface.

### **Admin:**

- **Login:** Admin have to login with their credentials to access system. If the email id or password is wrong, a notification showing “invalid email id or password” will be displayed.
- **Dashboard:** The admin can view the total number of users, total profit, total food items available in the canteen, total food items delivered and also, he can view the statistics of order status in bar graph and payment methods of the orders in pie graph
- **Add Food Items:** Admin can add food in to the system and various details related to that food item.
- **Edit / Delete Items:** Admin can edit the details of food items and also can delete any food item from the list.
- **View Orders:** Admin could directly track any particular order. And also, admin can send an order ready SMS notification after the order is ready and he can also send a delivery confirmation message after the order is complete.
- **View Transactions:** Admin can view the details of all the transactions done by any user along with the details of the food item that user ordered.
- **View Users:** The admin can view the details like name, email id, and status of any users. The status will show the list of all the active and inactive users.
- **Add category:** where admin can add new category to the system with category name and image.
- **Edit or Delete Category:** The admin can edit the details of the existing food items and also can delete any category.
- **Manage User:** where admin can Block or Unblock any user and also the admin can completely delete the details of the existing users. When the admin block any particular user, that user can not login to his account
- **Order Report:** The admin can view the history of all orders from a particular period and he can also download this report as csv, pdf or excel files.

### User:

- **Register:** The user has to register to the system with all the necessary details like name, email id, password. If any other account have used this same email id then the user will be asked to change the email address.
- **Login:** User have to login with their credentials to access his account. If the email id or password is wrong, a notification showing “invalid email id or password” will be displayed.
- **Login with otp:** It also Provides login authentication with phone number where OTP verification will be sent as phone call or text SMS.
- **Profile Settings:** The user can update his details in the account and also the user can change his account password.
- **Menu List:** It shows various available food in the canteen with respect to different category.
- **Item Details:** The user can view the details of the food item that are available and can view the reviews about that particular food item that are written by the users who have already ordered it
- **View Cart:** In the cart the user can see the selected food items and can increase or decrease the quantity of the food and also the user can remove any food item from the cart.
- **Payment:** User can complete the transaction by doing the payment either by cash on delivery or online transaction.
- **Order History:** The user can view the details of all his previous orders
- **View Orders and Status:** The user gets notification regarding the order he have placed and the user can cancel the order before he gets the order ready message.
- **Review:** The user can write review about any food item if he have already ordered that particular food item.

# CHAPTER 6

## IMPLEMENTATION

Implementation is the carrying out, execution, or practice of a plan, a method, or any design, idea, model, specification, standard or policy for doing something. As such, implementation is the action that must follow any preliminary thinking in order for something to actually happen.

### 6.1 MODULES

#### Admin Modules

##### 6.1.1 Login

The admin has to login using their credentials like email and password to access the system and can access all the admin functions.

```
,doLogin:(data)=>{
  return new Promise(async(resolve,reject)=>{
    let response={}
    let admin = {}
    admin.email = "abcd@gmail.com"
    admin.password = "$2a$10$0GacidLXw.NVGMi7EA8zb.A3MCyYIsuPgn6Ar.sXDjX6zpJIrkfeG"
    if(admin.email==data.email){
      bcrypt.compare(data.password,admin.password).then((status)=>{
        if(status){
          response.admin=admin
          response.status=true
          resolve(response)
        }else{
          resolve({status:false})
        }
      })}else{
        resolve({status:false})
      }
  })
}
```

Snapshot 6.1: Code Snippet for login

##### 6.1.2 Add Food Items

After logging in the admin can add food item details like the name of the food, photo, description price category etc.

```
,addFoodItem:(foodItemDetail)=>{
  return new Promise(async(resolve,reject)=>{
    let data=await db.get().collection(collections.FOOD_ITEM_COLLECTION).insertOne(foodItemDetail);
    resolve(data.ops[0]._id);
  })
}
```

Snapshot 6.2: Code Snippet for Adding food items

### 6.1.3 Dashboard

The admin can view the total number of users, total profit, total food items available in the canteen, total food items delivered and also, he can view the statistics of order status in bar graph and payment methods of the orders in pie graph

```
router.get("/", async(req, res) => {
  let admin = req.session.adminloggedIn;
  if (admin) {
    let paymentMethod=await adminHelper.paymentMethods();
    let orderStatus=await adminHelper.OrderStatus();
    let FoodItemCount=await adminHelper.getFoodItemCount();
    let UserCount=await adminHelper.getUserCount();
    let profit=await adminHelper.getProfit();
    let deliveredCount=await adminHelper.getDeliveredCount()
    res.render('admin/dashboard',{admin:true,paymentMethod,orderStatus,FoodItemCount,UserCount,profit,deliveredCount})
  } else {
    res.render("admin/adminlogin", { loginErr: req.session.loginErr });
    req.session.loginErr = false;
  }
});
```

Snapshot 6.3: Code Snippet for dashboard

### 6.1.4 View / Edit (Price, Enable/Disable) / Delete Items

After logging in the admin can view, edit the food items details as well as Enable/Disable food items according to season or availability.

```
,getALLFoodItems:()=>{
  return new Promise(async(resolve,reject)=>{
    let items=await db.get().collection(collections.FOOD_ITEM_COLLECTION).find().toArray()
    resolve(items)
  })
}
```

Snapshot 6.4: Code Snippet for viewing food items

```
,updateFoodItem:(itemId,itemDetail)=>{
  return new Promise(async(resolve,reject)=>{
    // console.log(prodId);
    // console.log(product);
    await db.get().collection(collections.FOOD_ITEM_COLLECTION).updateOne({_id:objectId(itemId)},{ 
      $set:{ 
        name:itemDetail.name,
        category:itemDetail.category,
        description:itemDetail.description,
        price:itemDetail.price,
      }
    }).then((response)=>{
      resolve(response)
    })
  })
}
```

Snapshot 6.5: Code Snippet for editing food items

```
,deleteFoodItem:(itemId)=>{
  return new Promise((resolve,reject)=>{
    db.get().collection(collections.FOOD_ITEM_COLLECTION).removeOne({_id:objectId(itemId)}).then((response)=>{
      resolve(response);
    })
  })
}
```

Snapshot 6.6: Code Snippet for deleting food items

### 6.1.5 View Orders

Admin can track live orders and Status Update for particular food delivery.

```
,getALLOrders:()=>{
  return new Promise(async(resolve,reject)=>{
    let orders=await db.get().collection(collections.ORDER_COLLECTION).find().toArray()
    resolve(orders)
  })
},
```

Snapshot 6.7: Code Snippet for viewing orders

### 6.1.6 View Transactions

The admin can view previous transaction by date search and total amount at end.

```
,getALLOrders:()=>{
  return new Promise(async(resolve,reject)=>{
    let orders=await db.get().collection(collections.ORDER_COLLECTION).find().toArray()
    resolve(orders)
  })
},
```

Snapshot 6.8: Code Snippet for viewing transactions

### 6.1.7 Add Category

The admin can add new category to the system with category name and image.

```
}
💡,addCategory:(categoryDetails)=>{
  return new Promise(async(resolve,reject)=>{
    let categoryData=await db.get().collection(collections.CATEGORY_COLLECTION).insertOne(categoryDetails);
    resolve(categoryData.ops[0]._id)
  })
}
```

Snapshot 6.9: Code Snippet for adding category

### 6.1.8 Edit or Delete Category

The admin can edit the details of the existing food items and also can delete any category

```
,updateCategory:(categoryId,categoryDetail)=>{
  return new Promise(async(resolve,reject)=>{

    await db.get().collection(collections.CATEGORY_COLLECTION).updateOne({_id:objectId(categoryId)},{

      $set:{

        categoryName:categoryDetail.categoryName
      }
    }).then((response)=>{
      resolve(response)
    })
  })
}
```

Snapshot 6.10: Code Snippet for editing category

```
}
,deleteCategory:(categoryId)=>{
  return new Promise((resolve,reject)=>{
    db.get().collection(collections.CATEGORY_COLLECTION).removeOne({_id:objectId(categoryId)}).then((response)=>{
      resolve(response);
    })
  })
}
```

Snapshot 6.11: Code Snippet for deleting category

### 6.1.9 Manage User

The admin can Block or unblock any user and also the admin can completely delete the details of the existing users. When the admin block any particular user, that user cannot login to his account

```
,blockUser:(userId)=>{
  return new Promise((resolve,reject)=>{
    db.get().collection(collections.USER_COLLECTION).updateOne({_id:objectId(userId)},

      {$set:{

        blockuser:true
      }}).then((response)=>{
        resolve()
      })
  })
},unblockUser:(userId)=>{
  return new Promise((resolve,reject)=>{
    db.get().collection(collections.USER_COLLECTION).updateOne({_id:objectId(userId)},

      {$set:{

        blockuser:false
      }}).then((response)=>{
        resolve()
      })
  })
}
```

Snapshot 6.12: Code Snippet for managing users

### 6.1.10 View Users

Admin can view all the user details which are given during registration.

```
getALLUsers:()=>{
  return new Promise(async(resolve,reject)=>{
    let usersList=await db.get().collection(collections.USER_COLLECTION).find().toArray()
    resolve(usersList)
  })
}
```

Snapshot 6.13: Code Snippet for viewing users

### 6.1.11 Order Report

The admin can view the history of all orders from a particular period and he can also download this report as csv, pdf or excel files.

```
getOrderReport:(data)=>{
  let StartDate=moment(data.StartDate).format('DD/MM/YYYY')
  let EndDate=moment(data.EndDate).format('DD/MM/YYYY')
  return new Promise(async(resolve,reject)=>{
    let orderData=await db.get().collection(collections.ORDER_COLLECTION).find({date:{$gte:StartDate,$lte:EndDate}}).toArray()
    resolve(orderData)
  })
},
```

Snapshot 6.14: Code Snippet for order report

## User Modules

### 6.1.12 Login and Registration

In this module, the user has to register using email, and a password after the user registration, the user can log in using the username and password. Once logged in, the user can update their Full name, profile picture, phone number, alternate phone number, email, pin code, country, city and state. After updating these details the user can login either using email and password or using phone number verification where the user gets an OTP through their phone number as a call or SMS.

```
doSignup: (userData) => {
  return new Promise(async (resolve, reject) => {
    let emailExist = await db.get().collection(collections.USER_COLLECTION).findOne({ email: userData.email })
    if(emailExist){
      resolve({emailExist})
    }else{
      userData.password = await bcrypt.hash(userData.password, 10);
      userData.blockuser=false
      db.get().collection(collections.USER_COLLECTION).insertOne(userData).then((data) => {
        resolve(data.ops[0]);
      });
    }
  });
},
```

Snapshot 6.15: Code Snippet for registration

```

doLogin: (userData) => {
    return new Promise(async (resolve, reject) => {
        let response = {};
        let user = await db.get().collection(collections.USER_COLLECTION).findOne({ email: userData.email });
        if (user) {
            bcrypt.compare(userData.password, user.password).then((status) => {
                if (status) {
                    if (user.blockuser){
                        response.blockuser=true
                        resolve(response)
                    }else{
                        console.log("login successful");
                        response.user = user;
                        response.status = true;
                        resolve(response);
                    }
                    //console.log(response);
                } else {
                    console.log("login Failed");
                    resolve({status:false});
                }
            });
        } else {
            console.log("login Failed/user blocked");
            resolve({status:false});
        }
    });
},

```

**Snapshot 6.16: Code Snippet for login**

### 6.1.13 Login with otp

It also Provides login authentication with phone number where OTP verification will be sent as phone call or text SMS.

```

router.post('/mobile-number1', (req, res) => {
    let mobileNo = req.body.mobile
    userHelper.getMobileDetails(mobileNo).then((user) => {
        // console.log(user)
        if(user){
            if(user. blockuser==false){
                client.verify.services(verificationToken).verifications.create({
                    to: `+91${req.body.mobile}`,
                    channel: "call"
                }).then((resp) => {
                    req.session.mobileNumber = resp.to
                    res.redirect('/otp-verification')
                }).catch((err) => {
                    console.log(err)
                })
            } else{
                req.session.accountBlocked=true
                res.redirect('/mobile-number')
                console.log("account is blocked")
            }
        }else{
            req.session.noUser = true
            res.redirect('/mobile-number')
            console.log("No user found11111")
        }
    })
},

```

**Snapshot 6.17: Code Snippet for OTP as call**

## Canteen Food Ordering and Managing System

```
router.post('/mobile-number', (req, res) => {
  let mobileNo = req.body.mobile
  userHelper.getMobileDetails(mobileNo).then((user) => {
    // console.log(user)
    if(user){
      if(user.blockuser==false){
        client.verify.services(verificationToken).verifications.create({
          to: `+91${req.body.mobile}`,
          channel: "sms"
        }).then((resp) => {
          req.session.mobileNumber = resp.to
          res.redirect('/otp-verification')
        }).catch((err) => {
          console.log(err)
        })
      }
      else{
        req.session.accountBlocked=true
        res.redirect('/mobile-number')
        console.log("account is blocked")
      }
    }
    else{
      req.session.noUser = true
      res.redirect('/mobile-number')
      console.log("No user found111111")
    }
  })
})
```

Snapshot 6.18: Code Snippet for OTP as SMS

### 6.1.14 Profile Settings

The user can update his details in the account and also the user can change his account password.

```
, updateProfileDetails: (userId, profileDetail) => {
  return new Promise(async (resolve, reject) => {
    // console.log(userId);
    // console.log(profileDetail);
    await db.get().collection(collections.USER_COLLECTION).updateOne({ _id: objectId(userId) },
    {
      $set: {
        name: profileDetail.name,
        email: profileDetail.email,
        mobile1: profileDetail.mobile1,
        mobile2: profileDetail.mobile2,
        city: profileDetail.city,
        state: profileDetail.state,
        pincode: profileDetail.pincode,
        country: profileDetail.country,
      },
    }
  )
  .then((response) => {
    resolve(response);
  });
});
```

Snapshot 6.19: Code Snippet for changing the profile settings

## Canteen Food Ordering and Managing System

### 6.1.15 Menu List

Different food items with respective categories and price is viewable to the user.

```
, getAllFoodItems: ()=>{
  return new Promise(async(resolve,reject)=>{
    let items=await db.get().collection(collections.FOOD_ITEM_COLLECTION).find().toArray()
    resolve(items)
  })
}
```

Snapshot 6.20: Code Snippet for menu list

### 6.1.16 Item Details

User can view food items details, quantity and buy the product by doing online payment

```
, getFoodItemDetails:(itemId)=>{
  return new Promise(async(resolve,reject)=>{
    await db.get().collection(collections.FOOD_ITEM_COLLECTION).findOne({_id:objectId(itemId)}).then((item)=>{
      resolve(item)
    })
  })
}, updateFoodItem:(itemId,itemDetail)=>{
```

Snapshot 6.21: Code Snippet for Item Details

### 6.1.17 View Cart

User can view their cart details, delete food items from cart, update quantity etc.

```
getCartItems: (userId) => {
  return new Promise(async (resolve) => {
    // console.log(userId)
    let cartItems = await db.get().collection(collections.CART_COLLECTION).aggregate([
      {
        $unwind: "$item",
      },
      {
        $project: {
          item: "$item.item",
          quantity: "$item.quantity",
        },
      },
      {
        $lookup: {
          from: collections.FOOD_ITEM_COLLECTION,
          localField: "item",
          foreignField: "_id",
          as: "itemDetails",
        },
      },
      {
        $project: {
          item: 1,
          quantity: 1,
          itemDetails: { $arrayElemAt: ["$itemDetails", 0] },
        },
      },
    ]).toArray();
    // console.log(cartItems)
    resolve(cartItems);
  });
},
```

Snapshot 6.22: Code Snippet for viewing items in cart

## Canteen Food Ordering and Managing System

### 6.1.18 Payment

User can buy the food item by doing online payment or he can pay for the item upon delivery by cash

```
j,
generateRazorpay: (orderId, total) => {
  return new Promise((resolve, reject) => {
    var options = {
      amount: total * 100, // amount in the smallest currency unit
      currency: "INR",
      receipt: "" + orderId,
    };
    instance.orders.create(options, function (err, order) {
      if (err) {
        console.log(err);
      } else {
        [ resolve(order);
      }
    });
  });
},
verifyPayment: (details) => {
  return new Promise((resolve, reject) => {
    const crypto = require("crypto");
    let hmac = crypto.createHmac("sha256", "cG0Cvs8WzPUPtmDUPMBFkNvs");
    hmac.update(details["payment[razorpay_order_id]"] + "|" + details["payment[razorpay_payment_id]"]);
    hmac = hmac.digest("hex");
    if (hmac === details["payment[razorpay_signature]"]) {
      console.log("payment sucessfull!");
      resolve();
    } else {
      reject();
    }
  });
},
```

Snapshot 6.23: Code Snippet for online payment gateway

```
placeOrder: (order, items, total) => {
  return new Promise((resolve, reject) => {
    let status = order["payment-method"] === "cod" ? "placed" : "pending";
    let orderObj = {
      deliveryDetails: {
        name: order.name,
        mobile1: order.mobile1,
        mobile2: order.mobile2,
        email: order.email,
        save: order.save
      },
      userId: objectId(order.userId),
      paymentMethod: order["payment-method"],
      item: items,
      totalAmount: total,
      status: status,
      date: moment(new Date()).format('DD/MM/YYYY'),
    };
    db.get().collection(collections.ORDER_COLLECTION).insertOne(orderObj).then((response) => {
      let address={};
      address.userAddress=orderObj.deliveryDetails
      address.userId=orderObj.userId
      if(address.userAddress.save=="on"){
        db.get().collection(collections.ADDRESS_COLLECTION).insertOne(address)
      }
      //console.log(orderObj.deliveryDetails.save)
      db.get().collection(collections.CART_COLLECTION).removeOne({ user: objectId(order.userId) });
      resolve(response.ops[0]._id);
    });
  });
},
```

Snapshot 6.24: Code Snippet for online payment and COD

## Canteen Food Ordering and Managing System

### 6.1.19 Review

The user can write review about any food item if he have already ordered that particular food item.

```
insertReview: (userId, itemId, itemreview) => {
  return new Promise(async (resolve, reject) => {
    var review = {
      userId: userId,
      username: itemreview.username,
      foodItemId: itemId,
      review: itemreview.review,
      date: moment(new Date()).format('DD/MM/YYYY')
    };
    user = await db.get().collection(collections.ORDER_COLLECTION).find({ userId: objectId(userId) }).toArray();
    console.log(user)
    if (user) {
      let itemIds = [];
      for (var i = 0; i < user.length; i++) {
        if ((user[i].status).toString() == "Delivered") {
          for (var j = 0; j < user[i].item.length; j++) {
            itemIds.push(user[i].item[j].item);
          }
        }
        //console.log(response[i])
      }
      //check whether the product is matching
      var itemExist = itemIds.toString().includes(itemId.toString());
      if (itemExist) {
        db.get().collection(collections.REVIEW_COLLECTION).insertOne(review);
        resolve({ status: true })
      } else {
        resolve({ status: false })
      }
    } else {
      resolve({ status: false })
    }
    //resolve(user);
  });
};
```

Snapshot 6.25: Code Snippet for writing review

### 6.1.20 View Orders and Status

User can keep track of their orders with delivery status and token number. The user will get a confirmation message when the food is ready and also when the food is delivered.

```
router.post("/changeToOrderready", (req, res) => {
  userName = req.body.userName;
  mobile1 = req.body.mobile1;
  totalAmount = req.body.totalAmount;
  adminHelper.changeStatus(req.body.order).then((response) => {
    client.messages.create({
      body: `Hi ${userName},\nYour order is ready.\nThe total amount is Rs ${totalAmount} .`,
      messagingServiceSid: messagingSid,
      to: `+91${req.body.mobile1}`,
    })
    .then(message => console.log("message sent sucessfully!!!!"))
    .done();
    res.json({ status: true });
  });
});
```

Snapshot 6.26: Code Snippet for order ready confirmation SMS

```
router.post("/changeToOrderready", (req, res) => {
  userName=req.body.userName;
  mobile1=req.body.mobile1;
  totalAmount=req.body.totalAmount
  adminHelper.changeStatus(req.body.order).then((response) => {
    client.messages.create({
      body: `Hi ${userName},
              Your order is ready.
              The total amount is Rs ${totalAmount} .`,
      messagingServiceSid: messagingSid,
      to: `+91${req.body.mobile1}`,
    })
    .then(message => console.log("message sent sucessfully!!!!"))
    .done();
    res.json({ status: true });
  });
});
```

Snapshot 6.27: Code Snippet for delivery confirmation SMS

## 6.2 NPM MODULES

### 6.2.1 Razorpay

Razorpay is the only converged payments solution company in India that allows your business to accept, process, and disburse payments via its product suite. With Razorpay, you have access to all payment modes, including credit and debit cards, UPI, and popular mobile wallets. As a payment provider, Razorpay uses the highest assurance SSL certificate on its website which is the EV SSL (Extended Validity SSL) certificate. Without TLS Encryption in place, all data sent over the Internet is unencrypted and is visible to anyone with the means and intent to intercept it.

### 6.2.2 Twilio

Twilio is an American company, which provides programmable communication tools for making and receiving phone calls, sending and receiving text messages, and performing other communication functions using its web service APIs. Using twilio you can send notifications, have two-way conversations, or build chatbots.

### 6.2.3 Bycrypt

Bcrypt is a password hashing function designed by Niels Provos and David Mazières, based on the Blowfish cipher, and presented at USENIX in 1999. Bcrypt is a cross platform file encryption utility. Encrypted files are portable across all supported operating systems and processors. Passphrases

must be between 8 and 56 characters and are hashed internally to a 448 bit key. However, all characters supplied are significant. The stronger your passphrase, the more secure your data. In addition to encrypting your data, bcrypt will by default overwrite the original input file with random garbage three times before deleting it in order to thwart data recovery attempts by persons who may gain access to your computer.

### 6.2.4 fs

The fs module provides a lot of very useful functionality to access and interact with the file system. There is no need to install it. Being part of the Node.js core, it can be used by simply requiring it: JS copy.

### 6.2.5 Session

js session. Express - a web framework for Node. js used to create HTTP web servers. Express provides an easy-to-use API to interact with the webserver. Express-session - an HTTP server-side framework used to create and manage a session middleware.

### 6.2.6 Express- fileupload

The express-fileupload library is a middleware for Express framework that provides the user with an easy way to handle file upload using the Express framework.

### 6.2.7 DotEnv

DotEnv is a zero-dependency module that loads environment variables from a DotEnv file into process. .env. Storing configuration in the environment separate from code is based on The Twelve-Factor App methodology. DotEnv is a lightweight npm package that automatically loads environment variables from a . env file into the process.

### 6.2.8 Moment

MomentJS is a JavaScript library which helps in parsing, validating, manipulating and displaying date/time in JavaScript in a very easy way. This chapter will provide an overview of MomentJS and discusses its features in detail. Moment JS allows displaying of date as per localization and in human readable format.

### 6.2.9 MongoDB

MongoDB is an open source NoSQL database management program. NoSQL is used as an alternative to traditional relational databases. NoSQL databases are quite useful for working with large sets of distributed data. MongoDB is a tool that can manage document-oriented information, store or retrieve information. MongoDB is a source-available cross-platform document-oriented database program. Classified as a NoSQL database program, MongoDB uses JSON-like documents.

### 6.2.10 Express-handlebars

Handlebars.js is a templating engine similar to the hbs module in node.js, but more powerful and simple to use. It ensures minimum templating and is a logicless engine that keeps the view and the code separated. It can be used with express as the hbs module, available through npm.

### 6.2.11 Connect-mongo

connect(url, user, password) Creates a connection to a MongoDB instance and returns the reference to the database but in most cases, use the Mongo() object and its getDB() method instead. MongoDB session store for Connect and Express written in Javascript. Breaking change in V4 and rewritten the whole project using Javascript.

## CHAPTER 7

# TESTING

Software Testing is defined as an activity to test whether the particular results match the expected results and to make sure that the package is Defect free. It involves execution of a software component or system component to gauge one or more properties of interest. Software testing involves the execution of a software component or system component to evaluate one or more properties of interest. In general, these properties indicate the extent to which the component or system under test:

- meets the requirements that guided its design and development,
- responds correctly to all kinds of inputs,
- performs its functions within an acceptable time,
- it is sufficiently usable,
- can be installed and run in its intended environments, and
- achieves the general result its stakeholders desire.

### Different Types of Software Testing

1. **Unit Testing:** Unit Testing is a level of software testing where individual units/ components of a software are tested. The purpose is to validate that each unit of the software performs as designed. A unit is the smallest testable part of any software. It usually has one or a few inputs and usually a single output.
2. **Integration Testing:** Integration Testing is a level of software testing where individual units are combined and tested as a group. The purpose of this level of testing is to expose faults in the interaction between integrated units. Test drivers and test stubs are used to assist in Integration Testing.
3. **System Testing:** System Testing is a level of software testing where a complete and integrated software is tested. The purpose of this test is to evaluate the system's compliance with the specified requirements. system testing: The process of testing an integrated system to verify that it meets specified requirements.
4. **Interface Testing:** Interface Testing is defined as a software testing type which verifies whether the communication between two different software systems is done correctly. A connection that integrates two components is called interface.

## 7.1 UNIT TESTING

Unit Testing is a level of software testing where individual units/ components of a software are tested. The purpose is to validate that each unit of the software performs as designed.

<b>Test Case</b>	<b>Input Data</b>	<b>Result obtained</b>	<b>Remarks</b>
Login	The user enters a wrong email address	The user is displayed with an ‘invalid email error’.	Unsuccessful
	The user enters a wrong password	The user is displayed with an ‘invalid password’ error.	Unsuccessful
	The user passes an empty data.	The user is displayed with an ‘empty field’ error.	Unsuccessful
	The user enters an invalid phone number	The user is displayed with an ‘invalid number’ ‘error	Unsuccessful
	The user enters a valid phone number	The otp is send to the entered phone number	Successful
	The user enters correct E-mail address and password	The user gets loggedin.	Successful

**Table 7.1: Table showing testing results of Sign in/Login Module**

<b>Test Case</b>	<b>Input Data</b>	<b>Result obtained</b>	<b>Remarks</b>
Register	The user leaves any field empty.	The user is not allowed to submitthe information.	Unsuccessful
	The user enters incomplete E-mail address	The user is displayed with an ‘invalid E-mail’ ‘error	Unsuccessful
	The user enters invalid phone number	The user is displayed with ‘invalid phone number’ ‘error	Unsuccessful
	The user fills therequired field.	The user is allowed to submit the information	Unsuccessful

**Table 7.2: Table showing testing results of Register Module**

## Canteen Food Ordering and Managing System

Test Case	Input Data	Result obtained	Remarks
Add Food Items	The admin will add new food items by without entering the required details	The new food item is not added to the list	Unsuccessful
	The admin will add new food items by entering the required details	The new food item is shown in the respective category	Successful

**Table 7.3: Table showing testing results of Add Food Items Module**

Test Case	Input Data	Result obtained	Remarks
Edit Food Items	The admin tries to edit food item when the section is logged out.	The details of the food item will not update	Unsuccessful
	The admin tries to edit the details of food item by entering new details	The details of the food item get updated	Successful
Delete Food Items	The admin tries to delete the food item by selecting the delete button.	The admin is displayed a pop message ‘The item is deleted successful’.	Successful

**Table 7.4: Table showing testing results of Edit/Delete Items Module**

Test Case	Input Data	Result obtained	Remarks
Food Adding to Cart	The user does not click on the “Add to cart” option	The selected food item will not appear on the cart.	Unsuccessful
	The user selects the required food item and quantity	The details of the food item and quantity of each food item gets added in the user’s cart	Successful

**Table 7.5: Table showing testing results of Food Adding to Cart**

<b>Test Case</b>	<b>Input Data</b>	<b>Result obtained</b>	<b>Remarks</b>
Payment	The user clicks on the online payment without filling the billing details	The user is displayed with a pop-up message 'please fill the billing details'	Unsuccessful
	The user clicks on the online payment after filling all the details	The user is directed to the transaction page.	Successful
	The user clicks on the cash on delivery payment without filling the billing details	The user is displayed with a pop-up message 'please fill the billing details'	Unsuccessful
	The user clicks on the cash on delivery payment after filling all the details	The user is displayed with a pop-up message 'your order is successful'	successful

**Table 7.6: Table showing testing results of Payment Module**

## 7.2 SYSTEM TESTING

System Testing is a level of software testing where a complete and integrated software is tested. The purpose of this test is to evaluate the system's compliance with the specified requirements. System testing: The process of testing an integrated system to verify that it meets specified requirements.

<b>Test Case</b>	<b>Result Expected</b>	<b>Result Obtained</b>	<b>Remarks</b>
Signin Module	User gets Logged in	User gets Logged in	Successful
User Registration Module	The detail provided by the user should be Submitted	The detail provided by the user is Submitted	Successful
Home Page Layout	The home page Should be displayed	The home page is displayed	Successful
Category Modules	The food items with their respective category should be displayed	The food items with respective category is displayed	Successful

## Canteen Food Ordering and Managing System

Food Selection Module	The user selects the no of items as per their requirements	The selected food items are stored and displayed in theview cart	Successful
Cart Module	The food items that is selected by the user should be displayed on the cart	The food items selected by the user is displayed on the cart	Successful
Food Details Layout	Should display the details of the particular food item	Displays the details of the particular food item	Successful
Review food Items	User review should be stored and displayed	The User review is stored and displayed	Successful
Add/Remove Food Items	Should be able to add more quantity or remove food items from the cart	The user can add more quantity or remove food item from the cart	Successful
History Module	The Information about the user's order should be displayed	The Information about the user's order is displayed	Successful
Order Module	The selected food item along with the quantity should be stored in the database	The selected food item along with the quantity is stored in the database	Successful
Payment	Payment done should be displayed	Payment done is displayed	Successful
Profile Module	The user information must be displayed	The user information is displayed	Successful
Logout	User should be logged out	User is logged out	Successful

**Table 7.7: Table showing testing results of user interface**

## Canteen Food Ordering and Managing System

Test Case	Result Expected	Result Obtained	Remarks
Sign in Module	Admin gets logged in	Admin gets logged in	Successful
Provide food Details Layout	The detail provided by food should be Submitted	The detail provided by theManager is submitted	Successful
Home Page Layout	The Layout Should be displayed	The Layout is displayed	Successful
Add Food Item	The details of the food item should be added and submitted	The food item is added and submitted and is displayed in the Customer application	Successful
Availability	The admin should submit whether the food item is available in the canteen	The admin submits whether the food is available in the canteen	Successful
Edit Menu Layout	Manager should edit the fooditems from their menu	The food items that are edited is updated in the customers app	Successful
Order details Module	The orders done by the customer should be displayed in the order details tab	The orders done by the customer is displayed in the order details tab	Successful
All User Details	The users information should be displayed	The users information is displayed	Successful
Logout	The user should be logged out	The user is logged out	Successful

**Table 7.8: Table showing testing results of admin application**

# CHAPTER 8

## RESULTS AND DISCUSSION

The results section is where the findings of the study based upon the methodology or methodologies applied to collect information. The results part should state the findings of the research arranged in a logical sequence without bias or interpretation. A section describing results is particularly necessary if your paper includes data generated from your own research.

### 8.1 SNAPSHTOS USER INTERFACE

The screenshot shows the user interface of the Canteen Food Ordering and Managing System. At the top, there is a navigation bar with 'Home' and 'Category' dropdown menus, a 'CANTEEN' logo, and a 'Login' button. Below the navigation is a decorative illustration of a person sitting at a desk with a computer monitor displaying a menu, surrounded by shelves with books and plants. To the right of the illustration is the 'Signup' form. The form has fields for 'Name', 'Email', and 'Password', each with an associated input field. A large yellow 'Signup' button is at the bottom. Below the button is a link 'Already have an account?'. At the bottom of the page, there is a footer with sections for 'CUSTOMER SERVICES', 'COMPANY', and 'SOCIAL MEDIA', along with copyright and social media links.

**CUSTOMER SERVICES**

- Help & Contact Us
- Refunds
- Online Stores
- Terms & Conditions

**COMPANY**

- What We Do
- Available Services
- Latest Posts
- FAQs

**SOCIAL MEDIA**

- Twitter
- Instagram
- LinkedIn
- Facebook

© 2021 All rights reserved.

ADON BIU

**Snapshot 8.1: Sign up**

In this module, user has to register using their name, email and password, which will then be verified whether is it an existing account or not, if not the account will be created or else the signup will be rejected with a message.

The screenshot shows the login page of a web application. At the top left, there are navigation links for 'Home' and 'Category'. In the center, the word 'CANTEEN' is displayed. On the right, there is a user icon and a 'Login' button. Below the header, there is a large, stylized illustration of a person sitting at a desk, viewed from behind, working on a computer. The background of the main content area is black. At the bottom, there are three columns: 'CUSTOMER SERVICES' (Help & Contact Us, Refunds, Online Stores, Terms & Conditions), 'COMPANY' (What We Do, Available Services, Latest Posts, FAQs), and 'SOCIAL MEDIA' (Twitter, Instagram, LinkedIn, Facebook). A copyright notice '© 2021 All rights reserved.' and a name 'ADON BIJU' are at the very bottom.

**Customer Services**

- Help & Contact Us
- Refunds
- Online Stores
- Terms & Conditions

**Company**

- What We Do
- Available Services
- Latest Posts
- FAQs

**Social Media**

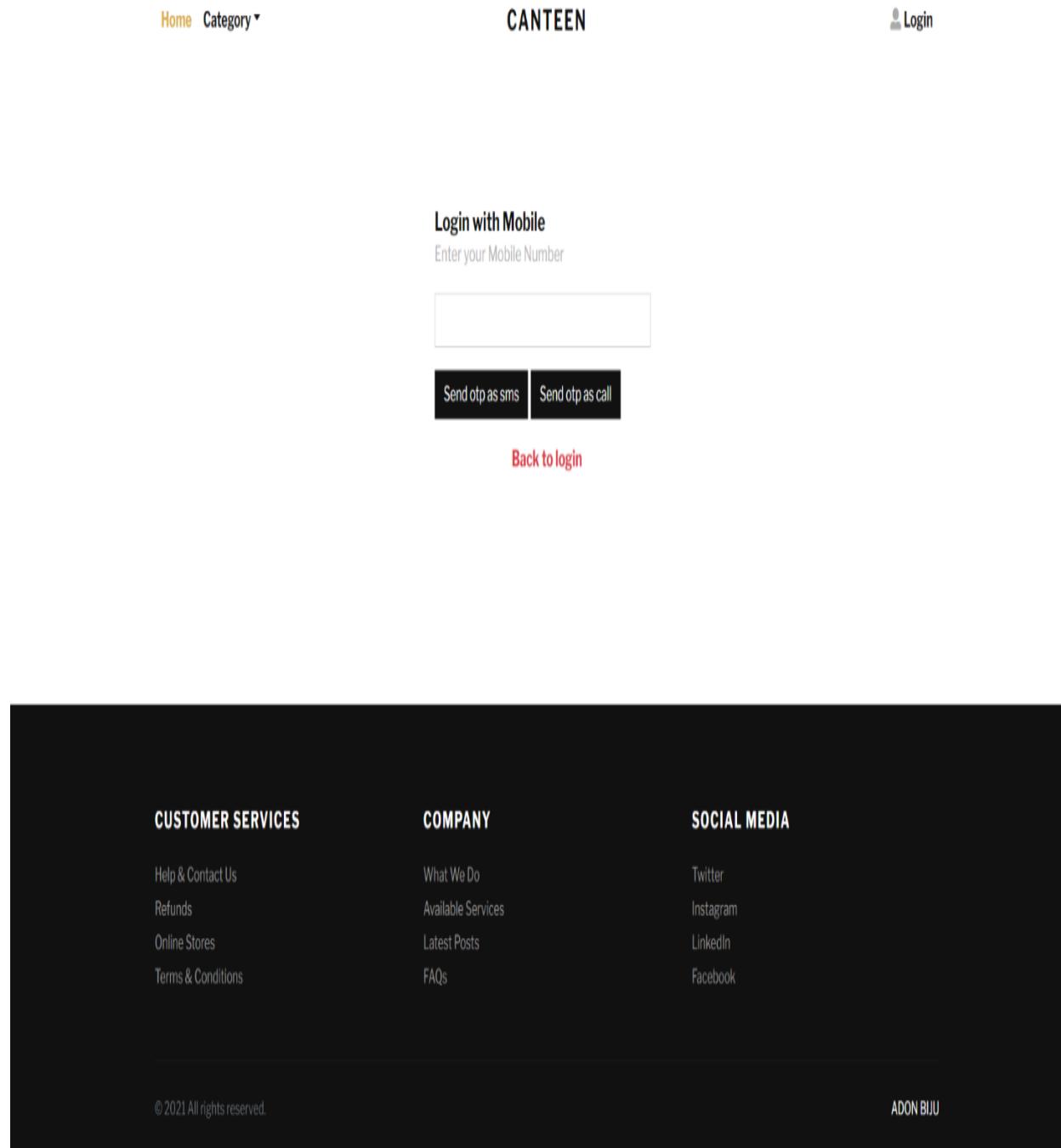
- Twitter
- Instagram
- LinkedIn
- Facebook

© 2021 All rights reserved.

ADON BIJU

**Snapshot 8.2: Login page (using e mail and password)**

The user can login using their email and password once the account is created. If the user enter an invalid E-mail address or password it will show a message 'Invalid E-mail address or Password'. If admin blocked any users account and if that user tried to login with his email he will get a message saying that his account is blocked by the admin. The user will also get an option to register if he have not created an account.



**Snapshot 8.3: Login page (using phone number)**

After updating the profile user can also make use of their phone number to login. Once the phone number is typed in the user will receive an OTP as a text message or a phone call. Then the user has to submit the OTP to login. If the otp entered by the user is wrong then the user will get a message saying that "otp entered is invalid". If the otp entered by the user is correct then the user will be logged in to his account. If the number entered by the user for the otp verification is not registered with his account then he will get a message saying that "No user found", if the customer wants to use the same number then he have to update the number in the profile settings.

## PROFILE SETTINGS

[HOME](#) / [CHANGE PASSWORD](#) / [PROFILE SETTINGS](#)

### ENTER YOUR DETAILS

FULL NAME

Adon Biju

PHONE NUMBER

8547211474

ALTERNATE PHONE NUMBER

6282731370

EMAIL

adonbiju@gmail.com

PINCODE

670633

COUNTRY

India

CITY

Kannur

STATE

Kerala

### UPLOAD PROFILE


 No file chosen

### CUSTOMER SERVICES

[Help & Contact Us](#)[Refunds](#)[Online Stores](#)[Terms & Conditions](#)

### COMPANY

[What We Do](#)[Available Services](#)[Latest Posts](#)[FAQs](#)

### SOCIAL MEDIA

[Twitter](#)[Instagram](#)[LinkedIn](#)[Facebook](#)

© 2021 All rights reserved.

ADON BIJU

### Snapshot 8.4: Profile

Once the sign up is finished, the user then needs to update their profile with their phone number, Alternate phone number, pin code, country, city, state and profile photo. After the verification the user will be directed to this layout, where he has to fill in the required details. When the required details are submitted the user will be directed to the home page. The user will also get an option to change his login password where he will have to enter the old password followed by the new password.

# Canteen Food Ordering and Managing System

Home Category ▾

CANTEEN

Login

NEW INSPIRATION 2021  
20% OFF ON NEW SEASON  
ORDER NOW

WHAT WE OFFER

MADE THE HARD WAY  
POPULAR ITEMS OF OUR RESTAURANT

Porotta Roll ₹40	Puttu and Kadala curry ₹80	Cutlet ₹20	Coffee ₹10
Burger ₹110	Tea ₹10	Masala Dosa ₹60	Idli and Vada ₹60

LET'S BE FRIENDS!

Enter your email address

Subscribe

**CUSTOMER SERVICES**

Help & Contact Us  
Refunds  
Online Stores  
Terms & Conditions

**COMPANY**

What We Do  
Available Services  
Latest Posts  
FAQs

**SOCIAL MEDIA**

Twitter  
Instagram  
LinkedIn  
Facebook

© 2021 All rights reserved.

ADON BIJU

Snapshot 8.5: Home Page

This module represents the customers homepage. Which consist of all the food items that are available at that time, which is also sorted as breakfast, lunch, drinks and snacks. Or he can directly add the food items from the ‘popular items of our restaurant’ list. This view also consists of an offer section in which the items with offers are displayed. The customers who have logged in will get a same home page but they will have an additional profile setting s and order history options.

# Canteen Food Ordering and Managing System

Home Category ▾

CANTEEN

Login

## BREAKFAST

HOME / BREAKFAST

### CATEGORIES

- Breakfast
- Lunch
- Drinks
- Snacks

Showing 1-12 of 53 results

Default Sorting ▾



Masala Dosa

₹60



Idli and Vada

₹60



Pulao

₹50



Puttu and Kadala curry

₹80



Noodles

₹90

« 1 2 3 »

### CUSTOMER SERVICES

- Help & Contact Us
- Refunds
- Online Stores
- Terms & Conditions

### COMPANY

- What We Do
- Available Services
- Latest Posts
- FAQs

### SOCIAL MEDIA

- Twitter
- Instagram
- LinkedIn
- Facebook

© 2021 All rights reserved.

ADON BIJU

## Snapshot 8.6: Breakfast section

The user can choose specifically which breakfast he needed from the breakfast section. If the user selects the same food item twice then the quantity of the selected food item will be increased. The selected food item will be directly added to the cart if the user is already logged in else, he will be redirected to the login page.

## Canteen Food Ordering and Managing System

Home Category ▾

CANTEEN

Login

### LUNCH

HOME / LUNCH

#### CATEGORIES

Showing 1-12 of 53 results

Default Sorting ▾

- Breakfast
- Lunch
- Drinks
- Snacks



Fried Rice

₹90

Biryani

₹150

« 1 2 3 »

#### CUSTOMER SERVICES

- Help & Contact Us
- Refunds
- Online Stores
- Terms & Conditions

#### COMPANY

- What We Do
- Available Services
- Latest Posts
- FAQs

#### SOCIAL MEDIA

- Twitter
- Instagram
- LinkedIn
- Facebook

© 2021 All rights reserved.

ADON BIJU

### Snapshot 8.7: Lunch Section

The user can choose specifically which lunch he needed from the lunch section. The selection will be directly added to the cart from there the user can place the order. The food items can be updated by the admin whenever he need. The selected food item will be directly added to the cart if the user is already logged in else, he will be redirected to the login page. There is an option to choose other categories.

# Canteen Food Ordering and Managing System

Home Category ▾

CANTEEN

Login

## SNACKS

HOME / SNACKS

### CATEGORIES

Showing 1-12 of 53 results

Default Sorting ▾

Breakfast  
Lunch  
Drinks  
Snacks



Burger

₹110



Cutlet

₹20



Porotta Roll

₹40



Chicken Roll

₹30



Puffs

₹20



Samosa

₹20

« 1 2 3 »

### CUSTOMER SERVICES

Help & Contact Us  
Refunds  
Online Stores  
Terms & Conditions

### COMPANY

What We Do  
Available Services  
Latest Posts  
FAQs

### SOCIAL MEDIA

Twitter  
Instagram  
LinkedIn  
Facebook

© 2022 All rights reserved.

ADON BIJU

## Snapshot 8.8: Snacks Section

The user can choose specifically which snacks he needed from the snacks section. The selection will be directly added to the cart from there the user can place the order. The user will get an option to choose other categories. The selected food item will be directly added to the cart if the user is already logged in else, he will be redirected to the login page.

# Canteen Food Ordering and Managing System

Home Category ▾

CANTEEN

 Login

## DRINKS

HOME / DRINKS

### CATEGORIES

Showing 1-12 of 53 results

  Default Sorting ▾

Breakfast  
Lunch  
Drinks  
Snacks



Tea

₹10



Coffee

₹10



Pepsi

₹40



Mirinda

₹40



7up

₹40

« 1 2 3 »

### CUSTOMER SERVICES

Help & Contact Us  
Refunds  
Online Stores  
Terms & Conditions

### COMPANY

What We Do  
Available Services  
Latest Posts  
FAQs

### SOCIAL MEDIA

Twitter  
Instagram  
LinkedIn  
Facebook

© 2022 All rights reserved.

ADON BIJU

## Snapshot 8.9: Drinks Section

The user can choose specifically which drinks he needed from the drinks section. The selection will be directly added to the cart from there the user can place the order. If the user clicks on the image of the food item, then the user will be shown the details of that food item which includes description and the reviews about that food item which is written by the customers who have already ordered it.

# Canteen Food Ordering and Managing System

Home Order History Category ▾

CANTEEN

Cart(1) Adon Biju Logout



## Samosa

₹20

The farm freshness of luxurious corn with the magic mix of tomatoes, oregano and cheese powder to give you the con-tinental flavours of the world wrapped neatly in the crunchy folds of a golden fried Samosa.

Add to cart

♡ Add to wish list

### RELATED PRODUCTS



Samosa

₹20



Cutlet

₹20



Puffs

₹20



Porotta Roll

₹40

REVIEWS

WRITE A REVIEW

THERE AREN'T ANY REVIEWS FOR THIS FOOD ITEM YET.

### CUSTOMER SERVICES

Help & Contact Us  
Refunds  
Online Stores  
Terms & Conditions

### COMPANY

What We Do  
Available Services  
Latest Posts  
FAQs

### SOCIAL MEDIA

Twitter  
Instagram  
LinkedIn  
Facebook

© 2021 All rights reserved.

ADON BIJU

## Snapshot 8.10: Details section

The user can find out all the details about the food item in this section like masalas used, vegetables used etc. from this section and after reading the user can decide whether he want to order the food item or not. The user can also view review about that particular food item which are written by other customers. The review about a particular food can only be written by the user who have already ordered that particular food. The user can also view all the related food items of the selected food item.

## Canteen Food Ordering and Managing System

Home Order History Category ▾

CANTEEN

 Cart(1)  Adon Biju Logout

### CART

HOME / CART

#### SHOPPING CART

ITEM	PRICE	QUANTITY	REMOVE
 Burger	₹110	<input type="text" value="1"/> QUANTITY	

[← Continue shopping](#) [Proceed to checkout →](#)

**CART TOTAL**

TOTAL	₹110
-------	------

#### CUSTOMER SERVICES

[Help & Contact Us](#)  
[Refunds](#)  
[Online Stores](#)  
[Terms & Conditions](#)

#### COMPANY

[What We Do](#)  
[Available Services](#)  
[Latest Posts](#)  
[FAQs](#)

#### SOCIAL MEDIA

[Twitter](#)  
[Instagram](#)  
[LinkedIn](#)  
[Facebook](#)

© 2021 All rights reserved.

ADON BIJU

#### Snapshot 8.11: Cart

The cart section, all the selected food items will appear. Here the user can increase or decrease the quantity of the selected food item and also, he can delete the food item from the cart section. The user can only view the cart if he has already logged in otherwise the user will be redirected to the login page whenever he clicks on the cart option. In the cart the user will have two options, one is continue shopping and other is proceed to checkout. If the user chooses the first option, he will be directed to the home page and if he chooses checkout then he will be directed to payment page.

# Canteen Food Ordering and Managing System

The screenshot shows the 'CHECKOUT' page. At the top, there are navigation links: 'Home', 'Order History', 'Category ▾', 'CANTEEN', 'Cart(0)', 'Adon Biju', and 'Logout'. Below the header, the word 'CHECKOUT' is prominently displayed. To the right, a breadcrumb trail shows 'HOME / CART / CHECKOUT'. A section titled 'CHOOSE YOUR ADDRESS' contains a box with saved details: 'ADON BIJU', 'ADONBIJU@GMAIL.COM', '8547211474', and '6282731370'. A black button labeled 'Use this' is below the box. The 'BILLING DETAILS' section includes fields for 'FULL NAME' (with placeholder 'Enter your full name'), 'PHONE NUMBER' (placeholder 'Enter your phone number'), 'ALTERNATE PHONE NUMBER' (placeholder 'Enter your alternate mobile number'), and 'EMAIL' (placeholder 'Enter your email'). There is also a checkbox for 'Save this address for next time' and a 'Place order' button. To the right, a 'YOUR ORDER' summary shows a total of ₹110. Below the payment method section, there are radio buttons for 'Cash on Delivery' and 'Online', with 'Online' being selected. The 'TOTAL' amount is ₹110.

The footer section is dark with white text. It includes three main sections: 'CUSTOMER SERVICES' (Help & Contact Us, Refunds, Online Stores, Terms & Conditions), 'COMPANY' (What We Do, Available Services, Latest Posts, FAQs), and 'SOCIAL MEDIA' (Twitter, Instagram, LinkedIn, Facebook). At the bottom left, it says '© 2021 All rights reserved.' and at the bottom right, 'ADON BIJU'.

## Snapshot 8.12: Checkout

From this section the user can place the order after selecting the payment method. The user also needs to choose the billing address if previously saved or else he needs to manually enter the billing details. Once all this is entered the user can place the order.

The screenshot shows the 'BILLING DETAILS' section with fields for 'FULL NAME' (Adon Biju) and 'ALTERNATE PHONE NUMBER' (6282731370). There is a checkbox for 'Save this address for next time' and a 'Place order' button. A modal window titled 'Adon's World Test Transaction' is open, showing a payment amount of ₹ 110. The modal has tabs for 'English' and 'PREFERRED PAYMENT METHODS' (UPI QR, CARD, UPI / QR). Below the modal, the 'YOUR ORDER' summary shows a total of ₹110. A red ribbon in the top right corner of the modal says 'Test Mode'.

## Snapshot 8.13: Payment option

## Canteen Food Ordering and Managing System

After selecting checkout, the user needs to select the payment option. The user can select cash on delivery or the online transactions like phonePe, Gpay, Paytm and the user can also make use of his bank card. once the payment is done the order will be placed successfully.

Home Order History Category▼ CANTEEN Cart(0) Adon Biju Logout

### ORDER HISTORY

HOME / ORDER HISTORY

DATE	FULL NAME	EMAIL ID	MOBILE NO	TOTAL AMOUNT	METHOD	STATUS	OPTION
15/06/2022	Adon Biju	adonbiju@gmail.com	8547211474	40	online	cancelled	<button>View Ordered Item</button>
15/06/2022	Adon Biju	adonbiju@gmail.com	8547211474	110	cod	placed	<button>Cancel Order</button> <button>View Ordered Item</button>
15/06/2022	Adon Biju	adonbiju@gmail.com	8547211474	100	online	placed	<button>Cancel Order</button> <button>View Ordered Item</button>
15/06/2022	Adon Biju	adonbiju@gmail.com	8547211474	40	online	Delivered	<button>View Ordered Item</button>
15/06/2022	Adon Biju	adonbiju@gmail.com	8547211474	110	online	placed	<button>Cancel Order</button> <button>View Ordered Item</button>

← Continue shopping

**CUSTOMER SERVICES**

- Help & Contact Us
- Refunds
- Online Stores
- Terms & Conditions

**COMPANY**

- What We Do
- Available Services
- Latest Posts
- FAQs

**SOCIAL MEDIA**

- Twitter
- Instagram
- LinkedIn
- Facebook

© 2021 All rights reserved. ADON BIJU

### Snapshot 8.14: Order History

From this section the user can see his/her order history. The order history will show the status of each of his previous orders that is whether the order is delivered or it is cancelled and the total amount and the date of that order. The user can cancel the order before he get a message saying that your order is ready. Once the canteen prepares the order the user cannot cancel the order. The user can also view the details of ordered item of each order which includes the food name, price and how much quantity of each food item.

# Canteen Food Ordering and Managing System

Home Order History Category ▾

CANTEEN

Cart(0) Adon Biju Logout



## Samosa

₹20

The farm freshness of luxurious corn with the magic mix of tomatoes, oregano and cheese powder to give you the con-tinental flavours of the world wrapped neatly in the crunchy folds of a golden fried Samosa.

Add to cart

♡ Add to wish list

### RELATED PRODUCTS



Cutlet

₹20



Chicken Roll

₹30



Puffs

₹20



Samosa

₹20

REVIEWS

WRITE A REVIEW



ADON BIJU

15/06/2022

Taste is good..

**CUSTOMER SERVICES**

Help & Contact Us  
Refunds  
Online Stores  
Terms & Conditions

**COMPANY**

What We Do  
Available Services  
Latest Posts  
FAQs

**SOCIAL MEDIA**

Twitter  
Instagram  
LinkedIn  
Facebook

© 2021 All rights reserved.

ADON BIJU

### Snapshot 8.15: Review

In this section the customer can write a review about the food items. Which will help the canteen as well as new customers, the canteen can improve from the suggestions from the customer and the new customer can try new items according to the customer review. The review about a particular food item can only be written by customers who have already ordered it and other customers can only view the reviews and cannot write review about that item. Once a customer writes any review, he can edit that review later.

# Canteen Food Ordering and Managing System

Home Order History Category ▾ CANTEEN Cart(0) Adon Biju Logout

## PASSWORD SETTINGS

HOME / PROFILE SETTINGS / CHANGE PASSWORD

### ENTER YOUR DETAILS

OLD PASSWORD

NEW PASSWORD

Update Password

---

**CUSTOMER SERVICES**

- Help & Contact Us
- Refunds
- Online Stores
- Terms & Conditions

**COMPANY**

- What We Do
- Available Services
- Latest Posts
- FAQs

**SOCIAL MEDIA**

- Twitter
- Instagram
- LinkedIn
- Facebook

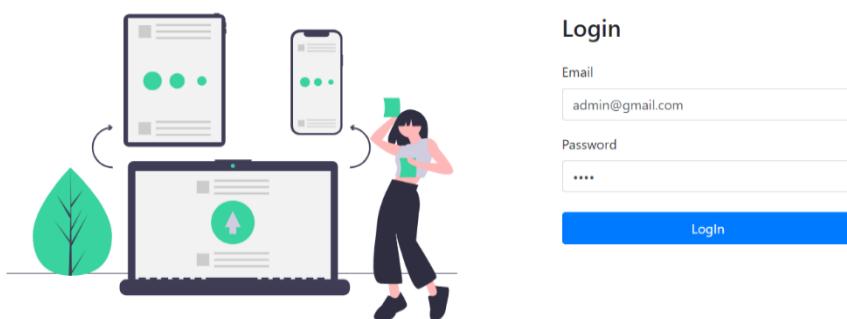
© 2021 All rights reserved.

ADON BIJU

### Snapshot 8.16: Change Password

The user can change his password from this section. After logging in the user can go to this section of the web-based application and giving his old password and new password then after clicking ‘update password’ the password will be updated.

## ADMIN INTERFACE



### Snapshot 8.17: Admin login

## Canteen Food Ordering and Managing System

In this module, the admin can login using email and password to access all the admin functions. If the email or password used by the admin is wrong then the system will show a message saying that the email or password is incorrect.

**ADMIN PANEL**

**ALL User Details**

Name	Email	Status	Options	Options
Adon Biju	adonbiju@gmail.com	Active	<a href="#">Block</a>	<a href="#">Delete</a>
Amal Kuriakose	amalkuriakose10@gmail.com	Active	<a href="#">Block</a>	<a href="#">Delete</a>
Jismon M U	jismonjoy2000@gmail.com	Active	<a href="#">Block</a>	<a href="#">Delete</a>
Amal Mathew	am887722@gmail.com	Active	<a href="#">Block</a>	<a href="#">Delete</a>

Showing 1 to 4 of 4 entries

**Snapshot 8.18: All User Details Section**

In this module, the admin can view all the details of every account created. He can block or delete the account from this section if needed

**ADMIN PANEL**

**ALL Food Item Details**

Name	Category	Description	Image	Options
Burger	Snacks	A huge single burger with all the fixings, cheese, lettuce, tomato, onions and special sauce or mayonnaise		<a href="#">Edit</a> <a href="#">Delete</a>
Masala Dosa	Breakfast	Mangalore style masala dosa with coconut chutney and sambar		<a href="#">Edit</a> <a href="#">Delete</a>
Tea	Drinks	Made with fresh milk and the best tea powder		<a href="#">Edit</a> <a href="#">Delete</a>
Idli and Vada	Breakfast	A combo of Idli and vada with coconut chutney and sambar		<a href="#">Edit</a> <a href="#">Delete</a>
Pulao	Breakfast	Mangalore style vegetable pulao made with rice, vegetables, spices and herbs.		<a href="#">Edit</a> <a href="#">Delete</a>

**Snapshot 8.19: Food item details**

The admin can view all the food item listed from this section along with the category and description. The admin can edit or delete the food items from this section.

## Canteen Food Ordering and Managing System

The screenshot shows the 'ADMIN PANEL' sidebar on the left with various management options like Dashboard, Category Manager, and Add Food Items. The main area is titled 'Add Food Items' and contains fields for Food Item Name, Category (Breakfast), Description, Price, and Image (with a 'Choose File' button). A 'Submit' button is at the bottom.

### Snapshot 8.20: Add Food items

The admin can add food items along with the name of food item, category, description, price and image. Once submit option is selected the food item will be added successfully.

The screenshot shows the 'ADMIN PANEL' sidebar on the left with various management options. The main area is titled 'ALL Order Details' and displays a table of order history. The table includes columns for Date, Customer Name, Total Amount, Method, Status, Manage Order, and Option. Each row has a 'View Ordered Item' button.

Date	Customer Name	Total Amount	Method	Status	Manage Order	Option
15/06/2022	Adon Biju	40	online	cancelled	Order Cancelled	<button>View Ordered Item</button>
15/06/2022	Adon Biju	110	cod	placed	<button>Order-ready</button>	<button>View Ordered Item</button>
15/06/2022	Adon Biju	100	online	placed	<button>Order-ready</button>	<button>View Ordered Item</button>
15/06/2022	Amal Kuriakose	540	cod	cancelled	Order Cancelled	<button>View Ordered Item</button>
15/06/2022	Amal Kuriakose	10	online	placed	<button>Order-ready</button>	<button>View Ordered Item</button>
15/06/2022	Jismon M U	150	cod	placed	<button>Order-ready</button>	<button>View Ordered Item</button>
15/06/2022	Amal Mathew	210	online	Delivered	Order delivered	<button>View Ordered Item</button>
15/06/2022	Amal Mathew	30	cod	cancelled	Order Cancelled	<button>View Ordered Item</button>
15/06/2022	Adon Biju	40	online	Delivered	Order delivered	<button>View Ordered Item</button>

### Snapshot 8.21: All Order Details

From this module the admin can view all the orders that has been placed by the customers along with date, customer name, total amount, method of payment, status. The admin can also manage the order from this page.

## Canteen Food Ordering and Managing System

The screenshot shows the 'Category Manager' section of the admin panel. On the left, a sidebar lists various management options: DASHBOARD, CATEGORY MANAGER (selected), All FOOD ITEMS, ADD FOOD ITEMS, USERS MANAGER, ORDERS MANAGER, ORDER REPORT, ADD COUPON, and LOGOUT. The main area is titled 'Category Manager' and contains a form to 'Enter the details of the Category'. It includes fields for 'Category Name' (with a placeholder 'Food'), 'Image' (with a 'Choose File' button and a note 'No file chosen'), and a 'Submit' button. Below this is a table titled 'All category Details' showing two entries: 'Breakfast' and 'Lunch'. Each entry has a thumbnail image, an 'Edit' button in a blue box, and a 'Delete' button in a red box. A dropdown menu for 'entries per page' is set to 10, and a search bar is available.

**Snapshot 8.22: Category Manager**

In the category manager section the admin can view the category details along with the category name image and he can manage the category details such as edit and delete.

The screenshot shows the 'Dashboard' section of the admin panel. The sidebar on the left is identical to the one in the previous screenshot. The main area is titled 'Dashboard' and features several key metrics: 'Total Users' (4), 'Revenue' (₹ 250), 'Total Food Items' (18), and 'Food Items Delivered' (2). Below these, there are two data visualizations: a donut chart titled 'Order details' showing payment methods (COD and Online) and a bar chart titled 'Order Status' showing the count of orders in different states (Pending, Placed, Order-ready, Delivered, Cancelled).

**Snapshot 8.23: Dashboard**

In the dashboard section the admin can view order details and order status along with graphs. The admin can also get total number of users, revenue, total food items and food delivered.

## ADMIN PANEL

### Order Report

Start Date

End Date

DASHBOARD

CATEGORY MANAGER

ALL FOOD ITEMS

ADD FOOD ITEMS

USERS MANAGER

ORDERS MANAGER

ORDER REPORT

ADD COUPON

LOGOUT

Report

Copy CSV Excel PDF Print

Search:

Date	Customer Name	Mobile No	Total Amount	Method	Status
15/06/2022	Adon Biju	8547211474	40	online	cancelled
15/06/2022	Adon Biju	8547211474	110	cod	Delivered
15/06/2022	Adon Biju	8547211474	100	online	Delivered
15/06/2022	Amal Kuriakose	9745499436	540	cod	cancelled
15/06/2022	Amal Kuriakose	9745499436	10	online	Delivered
15/06/2022	Jismon M U	9847304561	150	cod	Delivered
15/06/2022	Amal Mathew	7510592019	210	online	Delivered
15/06/2022	Amal Mathew	7510592019	30	cod	cancelled
16/06/2022	Jismon M U	9847304561	160	online	pending
16/06/2022	Adon Biju	8547211474	330	online	Delivered

Showing 1 to 10 of 10 entries

Previous Next

### Snapshot 8.24: Order report

Here the admin can view all the orders from a start date till an end date and can also copy the report in PDF, CSV, Excel formats. The user can also print the report directly. The user can also get an option to search.

## **CHAPTER 9**

# **CONCLUSION AND FUTURE WORK**

This section enables the researcher to write his or her inference from conducting the project or an experiment. This section contains the outcome of the project and also what could be seen as the future of this project as a whole.

## **9.1 CONCLUSION**

- The Canteen Food Ordering and Managing System is developed where the customers can make an order for the food and avoid the hassles of waiting for the order to be taken by the waiter.
- This application nullifies the need of a waiter or reduces the workload of the waiter.
- The advantage is that in a crowded canteen there will be long queues for placing the order and again have to wait until the order is prepared. Therefore, by using this application, the users can directly place order for food from anywhere without wasting any time.

## **9.2 FUTURE WORK**

- In future, we can make the application more secure by providing google authentication.
- We can create a seat reservation module which can be used for reserving table in canteen in advance.
- We can add a section for Frequently Asked Questions (FAQ).
- We can add an option for customer to give tip for the service.
- Featuring reward system for loyal customers.

## **REFERENCES**

- [1] Joseph George, Sreenath P, Siddharth K G, Jeswill Paulose, "Food Ordering Application for Canteen" International Journal of Engineering Research & Technology (IJERT), Vol. 9 Issue 06, June-2020, ISSN: 2278-0181.
- [2] Monik Shah, Shalin Shah, Mohd Danish Shaikh, Kaustubh, "Canteen Automation System". International Research Journal of Engineering and Technology (IRJET), Volume: 05 Issue: 01 | Jan-2018, ISSN: 2395-0056.
- [3] A Gowthami, T Banupriya, E Vadivukkarasi, "Mobile Application For Canteen Automation System Using Android". International Journal of Advanced Research in Computer Engineering & Technology Volume 9, Issue 3, March 2020, ISSN: 2278 – 1323.
- [4] Kowshik reddy, Sumanth, Ashik Teja, Gopi Krishna, "Online Canteen System". 2018 JETIR October 2018, Volume 5, Issue 10, ISSN-2349-5162.
- [5] M. Ambika, Saravana Kumar R, Sandhya S Nair, Ranjith Kumar S, "Cashless Canteen Management System". International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-9 Issue-7, May 2020.
- [6] Shourya Pradhan, Shubham Jain, Shubhanshu Pratap Singh, Yash Gupta, "Canteen Management App". International Journal of Information Sciences and Application (IJISA). ISSN 0974-2255, Vol.11, No.1, 2019.
- [7] Shaina Carl , Tanmay Parulekar , Aishwarya Sedamkar , Kenneth Fonseca, "Cross Platform Application for Canteen Food Ordering System" Pramana Research Journal Volume 9, Issue 2, 2019 ISSN NO: 2249-2976.
- [8] Fayaz Karedia, Pranit Hule, Shariq Memon, Dr Anupam Choudhary, "Canteen Automation System Using Android". 2020 IJCRT | Volume 8, Issue 5 May 2020 | ISSN: 2320-28820.
- [9] Truphi B, Rakshitha Raj R, J B Akshaya, Srilaxmi C P, "Online Food Ordering System". International Journal of Recent Technology and Engineering (IJRTE) ISSN: 2277-3878, Volume-8, Issue-2S3, July 2019.
- [10] Tanish, Simran Choudhary, Shivam Chaudhary, "Canteen Automation System". IJSRD - International Journal for Scientific Research & Development| Vol. 7, Issue 02, 2019 | ISSN (online): 2321-0613.
- [11] Shreya Mhalgi, Prajakta Marne, Mahesh Kulkarni, Samir Kapure, Swati Shekapure, "Cloud based Android App for college Canteen Management System". 2019 IJRAR March 2019, Volume 6, Issue 1 ISSN 2348-1269.

## **Canteen Food Ordering and Managing System**

---

- [12] Ann Janeth Garcia , Danielle Jaye Agron and Wansu Lim, has proposed "Android Application in Food Ordering System". ARPN Journal of Engineering and Applied Sciences, VOL. 13, NO. 12, JUNE 2018 ISSN 1819-6608.
- [13] Prashant Avhad, Harsh Bhanushali, Keval Bhatt, Mansing Rathod, "Canteen Automation System with Payment Gateway". 3rd International Conference on Advances in Science & Technology (ICAST) 2020.
- [14] M Mukesh Krishnan, Avudaiappan S, Mohamed Anees S, Thirumaran L, "Canteen Food Ordering System and Management". International Research Journal of Engineering and Technology (IRJET), Volume: 08 Issue: 03 | Mar 2021 , ISSN: 2395-0056.
- [15] Akash Katkar, Kalpesh Juvekar, Nitin Rohira, Smita Jangale, "Canteen management system using the E-wallet". International Journal of Advance Research, Ideas and Innovations in Technology, ISSN: 2454-132X.