A Project Report on

VIT Canteen Management System

Submitted in partial fulfilment for the award of the degree of

B.Tech (Computer Science and Engineering)

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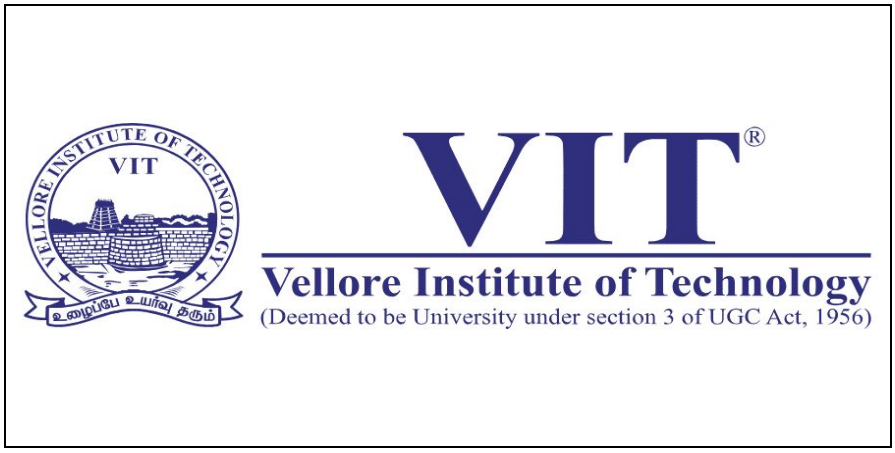

SCHOOL OF COMPUTER SCIENCE & ENGINEERING

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Abstract

Canteens are one of the favorite places of college goers, thus most of the time they are crowded and over-populated with the teenagers. There are several canteens in VIT, but comparatively way more students, which makes it quite difficult to manage. A lot of time students are also wasted by waiting inside for the food to come as well as stand in long queues for food. Mismanagement Like this can be minimized with the help of the software we are going to propose. We are putting forward an online restaurant management system for the canteens in VIT, where we can keep a systematic record of the restaurants, as well as make it easier for students to buy food, as well as easier for the cooks to prepare dishes accordingly. Our project is a web application with an aim to provide an entire online ordering section with cook as well as students.

Its features include an admin login, employee (cook) login and student login. The administrator will be able to add new canteens/food-parks as well as delete a registered one. Students will be allowed to select a canteen and then go through the menu of that canteen, and order accordingly whatever he or she likes, also they can specify by what time they want it. The cook on the other end can go through the orders, and if the cook feels the time of food pickup is very less or they don't have certain ingredients for a particular dish, they can cancel the order, else, they will accept the order. Using machine learning techniques, the user will be able to place further orders based on the brand and ingredients of the previously placed orders.

Hence, this project produces a manageable and systematic approach of a proper management of canteens in VIT University.

Keywords -- Canteen management, Database, Student Login, Cook Login, Orders, Food, ingredients.

Acknowledgment

We take immense pleasure in thanking **Dr. G. Viswanathan**, our beloved Chancellor, VIT University and respected Dean, **Dr. R. Saravanan**, for having permitted us to carry out the project.

We express gratitude to our guide, **Prof. Sweta Bhattacharya**, for guidance and suggestions that helped us to complete the project on time . Words are inadequate to express our gratitude to the faculty and staff members who encouraged and supported us during the project. Finally, we would like to thank our ever-loving parents for their blessings and our friends for their timely help and support.

Signature of Students

1. Varun Mishra
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1. Introduction

Computers have become part of life for accessing almost any kind of information. Life in the 21st century is full of technological advancement and in this technological age it is very difficult for any organization to survive without utilizing technology. The World Wide Web contributes greatly to the creation of an ever-increasing global information database. It could also be used as a mechanism to share information within an enterprise. In today's age of fast food and take-out, many canteens have chosen to focus on quick preparation and speedy delivery of orders rather than offering a rich dining experience.

Being in a university as big as VIT, the customers (students and the teachers) are mostly seen in the area in and around a canteen, stuck in a queue, waiting to order, getting fed up and then leaving from the same. Being in a queue just to order a cup of coffee, or even a light meal is really a tedious process. We hope to make it a tad bit simpler.

What we propose is a Canteen Automation System, which is a technique of ordering foods online applicable in any food delivery industry. The main advantage of this system is that it greatly simplifies the ordering process for both the customer and the canteen. The online canteen system contains 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 different canteens and their various items menu list. The customer can select the desired item and can pay the amount through an 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 digitalisation of the canteen system will be helpful in providing the better service to the users and the time consumption will be reduced.

Our project digitizes the concept of Canteen Management by removing queues from the equation. We provide the VITians, teachers and students alike, with an online platform, a website to order their favourite meal, from their favourite restaurant on-the-go. Let's say they are going from TT to SJT, for their class which starts in the next 10 minutes. Open up our website, select your canteen (SJT Canteen), order a cup of coffee, and buy the time you reach SJT, your pick-up is already ready, money having been deducted from your account's wallet. It's that easy.

Thus, this website on Canteen Management is created with the sole intention of revolutionizing the canteen experience of VIT for, both, the customers' side as well as the employees' side. This website aims at increasing the efficiency of each canteen and cutting down on wasting precious time by standing in queues.

1.1. Motivation

Being in a university as big as VIT, the customers (students and the teachers) are mostly seen in the area in and around a canteen, stuck in a queue, waiting to order, getting fed up and then leaving from the same. Being in a queue just to order a cup of coffee, or even a light meal is really a tedious process. In today's age of fast food and take-out, many canteens have chosen to focus on quick preparation and speedy delivery of orders rather than offering a rich dining experience. We hope to make it a tad bit simpler.

1.2. Aim of the Proposed Work

The website aims at helping the customers to save a tremendous amount of time and make sure that they are fully fed and queues and lines are not the barrier between their hunger and food. The website also provides the customer login with the option of Feedback along with the best rated canteen. This creates an interactive e- environment for the customers as they can decide which canteen to choose from each month as the leader board fluctuates with the status of best canteen. In the employee login, one can see an internal leader board of sorts where the best employee is displayed based on the highest average sale. This is a good way to increase the efficiency of each canteen, as the employees strive to reach the top of that leaderboard each month. It also enables the user to use certain machine learning methodologies to help the user in ordering next time and making the process faster.

1.3. Objectives(s) of the Proposed Work

The objective of the system is to automate all the activities of the canteen right from purchases to delivery of food/beverage items. The system should maintain a detailed account of all provisions bought and food served at the canteen. In addition to this, it should also maintain the daily expenses incurred by the staff. The system should provide an interface to payroll for deductions. Several inquiry facilities should also be provided to view the expenses incurred/ planned menus/cash payment etc.

The Objectives of this project is:
I. To order food rapidly
II. To make it convenient for people who have limited time
III. Cost reduction

IV. Reduced paperwork
V. Computerized Order and Billing System

2. Literature Survey

2.1. Survey of the Existing Models/ Work

Since our software is concerned with the canteens present in our university, our survey is based on the canteens present in our university.
Our university has numerous canteens. While some are student centric canteens in their hostels while there are various other bigger canteens available to everyone. Our focus is specifically towards these canteens.
Our canteens are based on the general principle of order and pickup within the canteen itself. The customers may browse through the menu which could be in the form of cards or even on the displays across the canteen. The customer then places their order at the counter usually and sometimes to the waiters present inside the canteen itself (eg. SJT Canteen). The order is then immediately processed. There are two types of canteens now further, one in which the customer needs to pay at the time of ordering itself while in other the payment is to be made at the end. The distribution could be either in the form of token system self pickup, or through the waiters in the canteen.

2.2. Summary/ Gaps identified in the Survey

The system above is quite simple though but with the recent population growth it becomes really tough to use it in peak times.
The above system can be termed be as quite primitive mode of management and with time there are some points/ gaps that we can point out here:

- Being in a queue just to order a cup of coffee, or even a light meal is really a tedious process.
- Further, with a growing population there is a need to manage this crowd.
- A lot of food gets wasted as sometimes customers don't pick up their orders.
- Also in this COVID situation, social distancing is something that we still need to take care about.

Some papers that could be mentioned here in order to improve this current system are shown below with their summaries.

1. Automatic Order Management System for Restaurants Author: Rohith1 , Swathi N Rao2 , Sweeda Noronha3 , Ujwala J Shetty4 , Wilson Samuel Mathias5 , Dr. Balachandra Achar H V6

This paper is about a technology that provides a quick ordering system inside the restaurant using the restaurant's Wi-Fi and about providing internet access to the authenticated customers. As a customer gets connected to the hotel WiFi, a page will be displayed to enter table number for authentication purpose. As soon as the customer enters the table number in his device a unique 4-digit code will be generated for the customer's IP address and displayed.

2. Canteen management system using the E-wallet Author: Akash Katkar, Kalpesh Juvekar, Nitin Rohira, Smita Jengale
The aim of this project in this research paper is to develop a system which can take orders at the counter and via online application and display them on monitors in the kitchen. This task can be done by creating a web application for managing the canteen menu and orders. The web application would make use of HTML5, JavaScript, and Bootstrap for frontend and JSP for the backend. Appropriate security features shall be implemented to prevent attacks using 2048 bit El-Gamal encryption scheme. The orders placed in advance will have an ORDER ID which shall be used to get the order delivered directly to the serving counter. Payments can be made via cash or e-wallet at the counter.

3. Proposed System Requirements Analysis and Design

3.1. Introduction

This system will help to manage and run the canteens systematically. In this management system, we will provide a web interface that can be used by the customers, here the students and teachers to order food. Its features include an admin login, employee (cook) login and student login. The administrator will be able to add new canteens/food-parks as well as delete a registered one. Students will be allowed to select a canteen and then go through the menu of that canteen, and order accordingly whatever he or she likes, also they can specify by what time they want it. The cook on the other end can go through the orders, and if the cook feels the time of food pickup is very less or they don’t have certain ingredients for a particular dish, they can cancel the order, else, they will accept the order. Customers can also give feedback through this app. So that owner of the canteen can evaluate the whole system. This will ultimately create an opportunity to appoint more chefs and better kitchen places to serve food faster. It also enables the user to use certain machine learning methodologies to help the user in ordering next time and making the process faster. Using machine learning techniques, the user will be able to place further orders based on the brand and ingredients of the previously placed orders.

3.2. Requirement Analysis

3.2.1. Stakeholder Identification

Stakeholders are the people or groups with an interest in the success or failure of an organisation. Stakeholders can affect or be affected by the organization's actions, objectives and policies. Not all stakeholders are equal. Some stakeholders are less important to a business than others. The business would class them as either; Primary stakeholders or Secondary stakeholders.

Primary Stakeholders

Primary Stakeholders – People or groups seen by the business to be vital to the organization's success or failure, a firm cannot exist without their continuing participation.
Major Primary Stakeholders involved in our project:

Roles	**Responsibilities**	**Communication System**		
		What	**When**	**How**
Student(s)/ Teacher(s)	Visit restaurants for food and dining experience.	The Canteen food type, price, cost and services.	Every day	Orders placed from their respective logins as created by the user.
Canteen Management Staff	Responsible for processing orders at the canteen. They gather order information from students/ teachers through the website and forwards them to the chef. Also, if the chef denies the possibility of the order then informs the user for the un availability.	To review the order from the customer as well as the chef's side.	Every day	Through the canteen management login.

Hostel Canteen Administrator	Responsible for adding new canteens or delete/ update the existing ones.	To add new canteens or delete/ update the existing ones.	Sticking to a frequency of a week, and increasing it when required.	Through the administrator login made available in the website.
Developers	Responsible for creating the platform initially, and then try to maintain and update as and when required.	Maintenance and updates.	As and when required	Has the complete access to the website and hence no particular medium.

Secondary Stakeholders

People or groups who feel involved in the organisation's success or failure, whether or not the management agree.

Major Secondary Stakeholders involved in our project:

Roles	**Responsibilities**	**Operation Goals**
Canteen Manager	Oversee restaurant operations. They ensure sufficient resources to operate the restaurant.	i) Manage staff information; ii) Order material from external suppliers; iii) Generate and view report of restaurant operation; and iv) Maintain menu information.
Supplier	Supply food materials to the restaurant. They receive purchase orders and deliver them periodically.	i) Receive purchase order for material from restaurant; and ii) Supply ingredients to the restaurant.

Chef	Prepare food dishes based on student/ teacher order. They also track usage of kitchen materials. They are further responsible to answer for the availability of the order.	i) View order information; ii) Update order status after cook dishes; iv) Keep track of inventory status; v) Assist manager in ordering ingredients. v) Cancel the order accordingly and ask the management staff to update the status.

3.2.2. Functional Requirements

General Requirements

Table 4.1.1 presents the identified functional general requirements that directly relate to the entire subject VIT-CM.

Requirement	Description
G01	A server shall host the VIT-CM and provide system data processing and storage capability.
G02	A surface computer shall provide a customer with all customer system functionality.
G03	A display shall provide a chef with all chef system functionality.
G04	All system functionality shall be accessible through touch sensitive surface computers, tablets and displays via simple touch gestures.

Table 4.1.1 Functional General Requirements

Logging into the System

Description and Priority

This is the foremost and important feature which distinguishes the working of the software system for students/ Teachers, Chef and the admin respectively.
After logging in via respective login, the different users would be able to explore the features of VIT-CM which are made for them specifically.
Stimulus/ Response Sequence
On opening the website through any device this is the first thing that will pop up to the user.
After logging in using the correct credentials only the user is allowed to use the software further.
For any wrong credentials passed, the user will be prompted with an error.
Functional Requirements
REQ-1: A customer shall be able to log in using their assigned username and password.
REQ-2: A chef shall be able to log in using their assigned username and password.

Choosing the Canteen to eat for the Customer Login
Description and Priority
After logging in using a customer account, the first feature that a customer gets is to choose the canteen he/ she wants to eat from a list of canteens. This feature is very essential as it separates our proposed system the most from the existing system as the user is offered the choice to choose from his/ her desired canteen.
Priority: High
Stimulus/ Response Sequence
After logging in as a customer, this is the first screen that will load on the screen offering the user to choose a canteen from a list of canteens on the screen.
Functional Requirements
REQ-1: A customer shall be able to navigate through the available canteens on the screen.
REQ-2: A customer shall be able to choose a canteen corresponding to the canteens available in the list.

Order Management for Customer Login
Description and Priority
After choosing the canteen, the respective menu is loaded from which the customer can choose the item he/ she wants to eat. The user can add items to the cart and can also remove it when he wants. Considering the priority, this feature is one general feature that should be definitely offered to the customers.
Priority: High
Stimulus/ Response Sequence
Immediately after choosing the canteen from the list, the respective canteen menu is loaded up. The user has a cart in which he can manage his/ her order.

Functional Requirements
REQ-1: A customer shall be able to navigate through the available items in their engaged menu.
REQ-2: A customer shall be able to add an item to a pending order by increasing the quantity corresponding to the item in the menu.
REQ-3: A customer shall be able to remove an item to a pending order by decreasing the quantity corresponding to the item in the menu.

Order Placement only after Payment
Description and Priority
The order in the cart would be only processed if the payment is done for that order. This is a very essential feature as it not only makes the system more secure but also decreases the chances of food wastage as only the specific orders would be processed which have been paid of which at least 95% would be consumed.
Priority: High
Stimulus/ Response Sequence
After the order has been finalized by the customer, he can only proceed further if he/ she pays for the order from the cart option.
Functional Requirements
REQ-1: A customer shall be able to place an order through their engaged menu if it is pending and not empty.
REQ-2: The order should be further processed only after the payment has been made.

Menu Management for the Chef Login
Description and Priority
The chef has the feature to update the menu as per the availability of the ingredients. Also it makes the system more dynamic as the customers might get bored of the same menu over weeks or days. Though this feature adds further dynamism to our software, it's not as essential as the other features.
Priority: Low
Stimulus/ Response Sequence
After logging in as Chef, the user can use this feature. The changes would be reflected as soon as the changes are made.
Functional Requirements
REQ-1: The Chef should be able to navigate through the available items in their engaged menu.
REQ-2: The Chef should be able to add an item to the existing menu.
REQ-3: The Chef should be able to remove an item from the existing menu.

Order Cancellation and Complete Refund

Description and Priority

If the user due to some situation is not able to take the order, he/ she can cancel his order and get the full refund of the order made. This particular feature is yet another general feature but makes the software much more efficient.

Priority: Medium

Stimulus/ Response Sequence

The order can be cancelled from the order status which is available to the customers. The amount paid would be refunded into the customer account following the cancellation.

Functional Requirements

REQ-1: A customer shall be able to cancel an order through their engaged menu if it is pending and not yet placed.

REQ-2: A customer shall be able to cancel an order through their order status if it is placed.

REQ-3: The payment must be refunded as soon as the order is cancelled.

Order Cancellation by Chef Login

Description and Priority

There are certain situations where the ingredients get finished over time on the same day, with stills some orders that contain those ingredients. In this situation the Chef has the option to cancel the order and the user will be prompted in his/ her order status so that he may change the order made and come up with a new order.

Priority: High

Stimulus/ Response Sequence

The orders would be visible to the chef on his screen as soons as they are made so he can process and cancel them accordingly.

Functional Requirements

REQ-1: A chef shall be able to accept a customer’s order item through a display.

REQ-2: A chef shall be able to reject a customer’s order item through a display.

Leaderboard for Canteens

Description and Priority

The software offers a leaderboard on which the employees are listed with their respective canteens and the sales made by them.

Priority: Low

Stimulus/ Response Sequence

The homepage has an option from where the employees can be viewed along with their canteens and the sales made by them.

Feedback option for Customer Login

Description and Priority

The customers have the option to give the feedback to any particular canteen based on their experience. Through the feedback the canteens may be able to improve on the basis of the feedback making the system much efficient.

Priority: Medium

Functional Requirements

REQ-1: The customer should be able to choose the canteen for which he/ she wants to give the review.

REQ-2: The customer should be able to write a review for the selected canteen.

REQ-3: The customer should be able to give a rating on a scale of 0- 10 for the selected canteen.

REQ-4: The customer should be able to successfully submit the feedback.

3.2.3. Non Functional Requirements

Performance Requirements

Requirement	Description
P01	The server shall be capable of supporting no less than 200 concurrent connections from any combination of surface computers, tablets and displays.
P02	The server shall be capable of supporting an arbitrary number of surface computers, tablets and displays, that is, it shall provide no limit on how many devices are in the system.
P03	The server shall be capable of supporting an arbitrary number of active meals/orders, that is, no meals/orders shall be lost under any circumstances

Table 5.1.1 Performance Requirements

Safety Requirements

Requirement	Description
F01	The system shall log every state and state change of every surface computer, tablet and display to provision recovery from system failure.
F02	The system shall be capable of restoring itself to its previous state in the event of failure (e.g. a system crash or power loss).
F03	The system shall be able to display a menu at all times to facilitate manual order taking should the need arise.

Table 5.2.1 Safety Requirements

Security Requirements

Requirement	Description
Y01	The payment details and also the user's personal details should be kept highly secure so that no one can access them and use it for some unethical work.
Y02	A display shall not require a user to log in.
Y03	A password used for login must have a bit-strength of at least 64 bits.

Table 5.3.1 Security Requirements

Software Quality Attributes

- Reliability

  The system can be used by multiple users concurrently. The orders that have been paid must be processed and if not, should be prompted prior to the user.
- Maintainability

  The software must be reusable, analysable, modifiable as well as testable.
- Robustness

The system should be able to handle extreme traffic in certain emergency situations and should not fail to deliver its purpose.

- Security
  The confidentiality, integrity, accountability, authenticity of the user's information must be maintained by the system.
- Functional Suitability
  The software must be functionally complete, functionally correct, and functionally appropriate.

3.2.4. System Requirements

The system must have:

- RAM > 2GB
- Processor at least 2.0Ghz
- Python and Packages installed.
- Operating system Windows 10, Linux any distribution.
- Install the Python Dependencies from the requirements.txt file.
- A web browser installed which supports HTML 5.

The system must provide a capacity for parallel operation and system design should not introduce scalability issues with regard to the number of surface computers, tablets or displays connected at any one time. The end system should also allow for seamless recovery, without data loss, from individual device failure. There must be a strong audit chain with all system actions logged. It is worth noting that this system is likely to conform to what is available. With that in mind, the most adaptable and portable technologies should be used for the implementation. The system has criticality insofar as it is a live system. If the system is down, then customers must not notice, or notice that the system recovers quickly (seconds). The system must be reliable enough to run crash and glitch free more or less indefinitely, or facilitate error recovery strong enough such that glitches are never revealed to its end-users

3.2.4.1. H/W Requirements

There are three external hardware devices used by the VIT-CM. These devices are the surface computers, the wireless tablets and the touch displays. All three devices must be physically robust and immune to liquid damage and stains. The devices (with the possible exception of displays) must also have good industrial design aesthetics, as they are to be used in place of normal restaurant tables and notepads and will be in direct contact with customers. The devices behave as 'terminals' in the sense that they never have a full system image, do not store data and are not used for the core logic of the system. However, they should be fully capable computers

that can use textual data from the server along with local UI/interpretation code to display UI elements and take input. All order and transaction records should be stored on the server, not these computers. The performance of dumb terminals over an area the size of a restaurant is likely to be unacceptable. In all three cases, the hardware device takes information from the VIT-CM and processes the information to display. It also provides user input information to the VIT-CM.

3.2.4.2. S/W Requirements

The VIT-CM will interface with a Database Management System (DBMS) that stores the information necessary for the software to operate. The DBMS must be able to provide, on request and with low latency, data concerning the restaurant's menu, employees (and their passwords) and available dietary requirements. Additionally, it should take and archive data provided to it by the VIT-CM. This data will include records of all orders and transactions (system states and state changes) executed by the VIT-CM. The DBMS must store all data such that it can be used for accounting, as well as accountability.

3.2.5. Software Requirement Specification Document

(Directly copied from one of the previously done assessments on SRS)

Software Requirements Specification Document

for

VIT Canteen Management

Version 1.0

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Vellore Institute of Technology, Vellore

Date: 25-08-2020

1. Introduction

The following section provides an overview of the derived Software Requirements Specification (SRS) for the subject **VIT Canteen Management Using Machine Learning**. To begin with, the purpose of the document is presented and its intended audience outlined. Subsequently, the scope of the project specified by the document is given with a particular focus on what the resultant software will do. The nomenclature used throughout the SRS is also offered. To conclude, all the references used in the development of this idea and further in the project.

1.1. Purpose

The purpose of this SRS is to outline both the functional and non-functional requirements of the subject VIT-CM. In addition to said requirements, the document also provides a detailed profile of the external interfaces, performance considerations and design constraints imposed on the subsequent implementation. It is the intention that the presented set of requirements possesses the following qualities; correctness, unambiguousness, completeness, consistency, verifiability, modifiability and traceability. Consequently, the document should act as a foundation for efficient and well-managed project completion and further serve as an accurate reference in the future.

1.2. Document Conventions

This subsection presents definitions for the terms and acronyms used throughout this SRS as they relate to the subject VIT-CM.

Term	Description
Item	Single serving of food/beverage
Order	Comprises one or more items
Customer	Restaurant patron that orders/pays for a meal
Chef	Staff member whose primary job is to prepare items

Supervisor	Staff member whose primary job is to manage restaurant operations
Server	Backend computer that hosts the canteen menu and ordering system
Surface Computer	Built into tables to provide customers with menu/ordering functionality
Tablet/ Mobile	Wireless mobile computer to provide staff with customer serving functionality
Menu	Surface computer representation of the available items and other options
Display	Touch screen to provide a means for chefs to interact with the system

Table 1.2.1 System Terminology

Acronym	**Description**
SRS	Software Requirement Specification
VIT-CM	VIT Canteen Management System
DBMS	Database Management System
LAN	Local Area Network
IP	Internet Protocol
TCP	Transmission Control Protocol

Table 1.2.2 System Acronyms

1.3. Intended Audience and Reading Suggestions

The primary audience of this SRS document will be the development team employed to implement the specified VIT-CM. It will not only provide an extensive capacity for project planning and progress assessment but it will further assist with developer/stakeholder interactions. The secondary document audience comprises the stakeholders of the project, that is, canteens and associated staff. To this audience group, this SRS should convey and confirm the required functionality and represent a contractual agreement between the involved parties.

This document has a sequential overview of the whole project so if a reader reads the document from top to bottom, he will get a clear idea about the project.

1.4. Product Scope

This system will help to manage and run the canteens systematically. In this management system, we will provide a web interface that can be used by the customers, here the students and teachers to order food. Its features include an admin login, employee (cook) login and student login. The administrator will be able to add new canteens/food-parks as well as delete a registered one. Students will be allowed to select a canteen and then go through the menu of that canteen, and order accordingly whatever he or she likes, also they can specify by what time they want it. The cook on the other end can go through the orders, and if the cook feels the time of food

pickup is very less or they don’t have certain ingredients for a particular dish, they can cancel the order, else, they will accept the order. Customers can also give feedback through this app. So that owner of the canteen can evaluate the whole system. This will ultimately create an opportunity to appoint more chefs and better kitchen places to serve food faster. It also enables the user to use certain machine learning methodologies to help the user in ordering next time and making the process faster. Using machine learning techniques, the user will be able to place further orders based on the brand and ingredients of the previously placed orders.

1.5. References

1.5.1. Automatic Order Management System for Restaurants Author: Rohith1 , Swathi N Rao2 , Sweeda Noronha3 , Ujwala J Shetty4 , Wilson Samuel Mathias5 , Dr. Balachandra Achar H V6

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1.5.2. Canteen management system using the E-wallet Author: Akash Katkar, Kalpesh Juvekar, Nitin Rohira, Smita Jengale

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1.5.3. https://www.w3schools.com/html/html_css.asp

1.5.4. https://make.wordpress.org/core/handbook/tutorials/installing-a-local-server/wampserver/

1.5.5. https://www.starlinkindia.com/Softwares/canteen-management-software/

1.5.6. http://bgil.in/Download_PDF/catloge/Canteen%20Management%20System-ppt.pdf

2. Overall Description

The following section presents an overall description of the subject VIT-CM. In particular, the product has been put into perspective through a detailed assessment of the system, user, hardware, software and communication interfaces, memory considerations, operational modes and site adaptation requirements. Further,

characteristics of the system's end -users are discussed along with the identified system constraints and assumptions.

2.1. Product Perspective

The software described in this SRS is the software for a complete VIT-CM system. Considering the present Canteen Management system there was a sincere need of updation with the growing amount of people, combining with the unavailability of time, technological advancements, and also the current pandemic situation. The system, VIT-CM if not eradicating these problems completely but can cope up with the above demands and would surely work more efficiently than the primitive Canteen Management System.

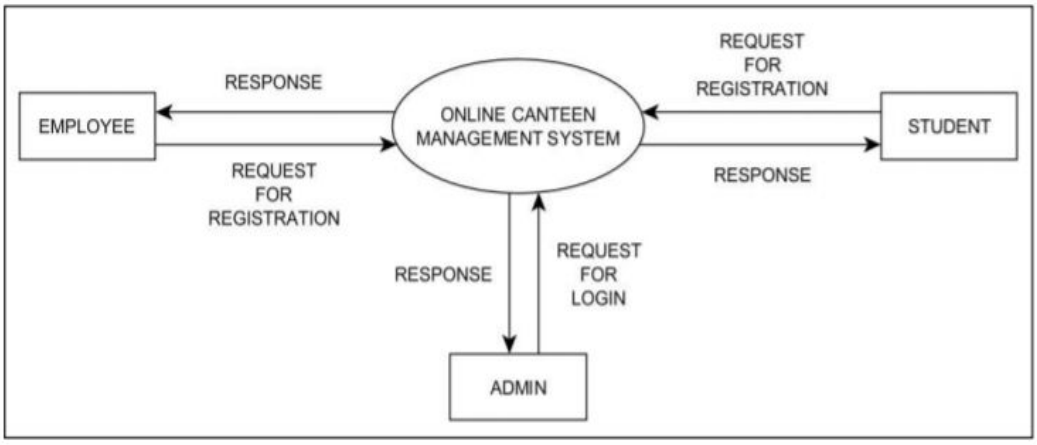


Figure 2.1.1 Level-0 Design

2.2. Product Functions

The system functions will go in this order:

- The user would login in to the system according to the class it belongs to, student/ teacher, chef or admin.

- In case of administrator, the system provides the options to add new canteens/food-parks as well as delete a registered one.
- For the chef login, the software offers the function to go through the orders, and if the cook feels the time of food pickup is very less or they don't have certain ingredients for a particular dish, they can cancel the order, else, they will accept the order.
- Students/ Teachers will be allowed to select a canteen and then go through the menu of that canteen, and order accordingly whatever he or she likes, also they can specify by what time they want it.
- The website also provides the customer login with the option of Feedback along with the best rated canteen.
- In the employee login, one can see an internal leader board of sorts where the best employee is displayed based on the highest average sale.
- Using machine learning techniques, the user will be able to place further orders based on the brand and ingredients of the previously placed orders.

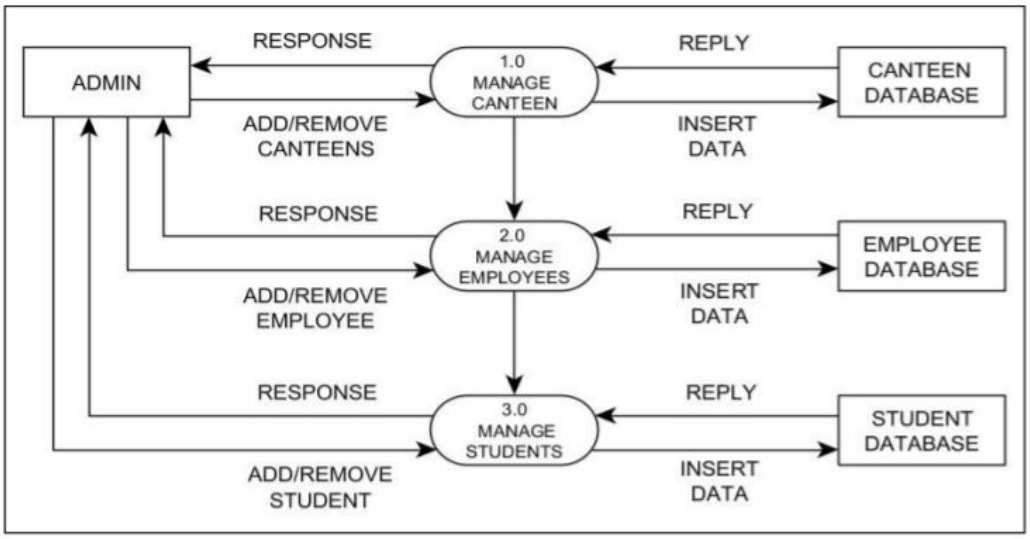


Figure 2.2.1 Level-1 Admin Design

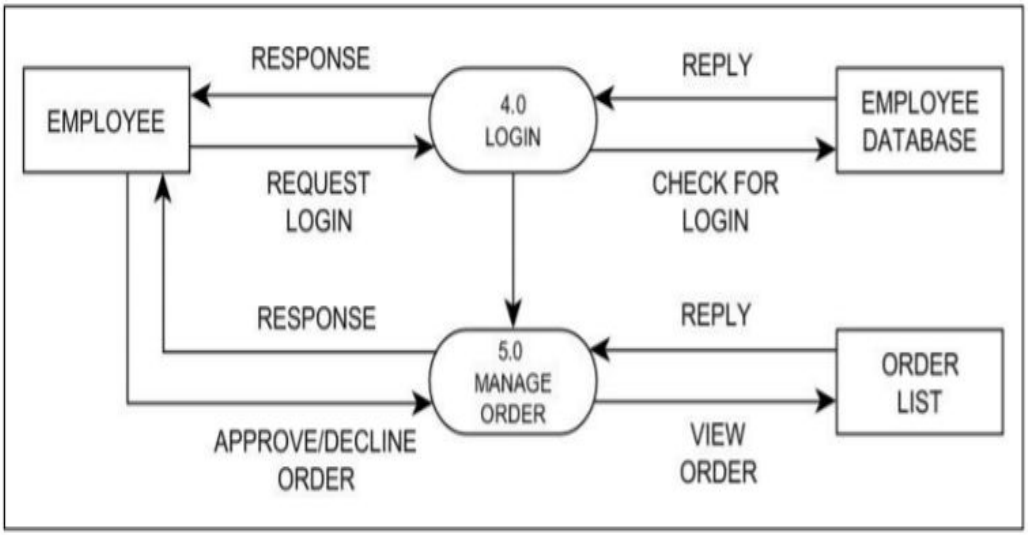


Figure 2.2.2 Level-1 Chef Design

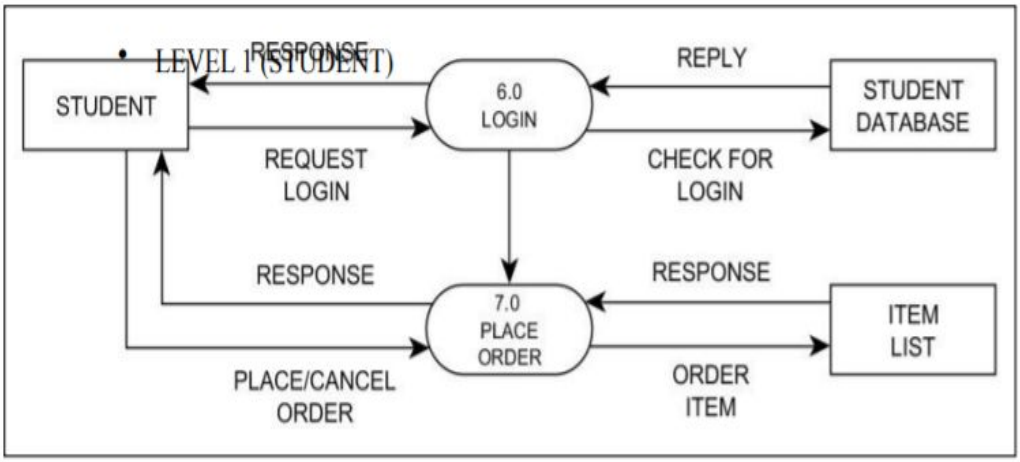


Figure 2.2.3 Level-1 Customer Design

2.3. User Classes and Characteristics

The end-users of the VIT-CM fall into three primary categories, unskilled, partly skilled and highly skilled on the basis of the skills they possess to use the software.

2.3.1. **Unskilled users** The users of the surface computers are walk-in customers and should therefore be assumed to have no relevant prior skills or education other than basic abilities to operate an automated system; no more complex than a parking meter or vending machine.

2.3.2. **Partly skilled users** The users of the tablets and displays are employees and chefs respectively and they should be able to use the system and further be able to train others with minimal training themselves. They must be able to explain all elements of the user interfaces except the server. Supervisors also fall into the same category, though they will have to learn other sections of the system (refunds etc); these should not be of notably greater complexity than the standard functions. This class of user would be expected to have a junior high-school certificate education or equivalent.

2.3.3. **Highly skilled users** The initial installation and configuration of hardware and the constituent VIT-CM system components (especially the server) is guaranteed to require someone with notable computer experience, including extensive experience with network and operating systems to complete it. The software should not be needlessly complex, but it is still expected not to be

entirely 'plug and play'. This class of user is expected to have a high-school certificate or equivalent, as well as extensive computer experience.

2.4. Operating Environment

The system must have:

- RAM > 2GB
- Processor at least 2.0Ghz
- Python and Packages installed.
- Operating system Windows 10, Linux any distribution.
- Install the Python Dependencies from the requirements.txt file.
- A web browser installed which supports HTML 5.

2.5. Design and Implementation Constraints

The system must provide a capacity for parallel operation and system design should not introduce scalability issues with regard to the number of surface computers, tablets or displays connected at any one time. The end system should also allow for seamless recovery, without data loss, from individual device failure. There must be a strong audit chain with all system actions logged. While interfaces are covered in Section 3, it is worth noting that this system is likely to conform to what is available. With that in mind, the most adaptable and portable technologies should be used for the implementation. The system has criticality insofar as it is a live system. If the system is down, then customers must not notice, or notice that the system recovers quickly (seconds). The system must be reliable enough

to run crash and glitch free more or less indefinitely, or facilitate error recovery strong enough such that glitches are never revealed to its end-users.

2.6. User Documentation

A user manual will provide specific guidelines to a user for using the VIT-CM system.

Furthermore a Video (Slide Show) will be provided which will represent the whole system function and how it works.

An online platform will be created so that the users may share their concern with the developer so that it can be rectified.

2.7. Assumptions and Dependencies

The SRS assumes that none of the constituent system components will be implemented as embedded applications. The implication is that the target hardware will provide a capacity for standalone program/application deployment and not require customised embedded firmware to be written. It is further assumed that tablet PCs of sufficient processing capability and battery life will be utilised. The surface computers employed by the system should facilitate being utilised/left on for extended periods (sufficient for daily use).

3. External Interface Requirements

3.1. User Interfaces

The user interface will be implemented using any modern day web browser independent of the various specific platforms (since this is a web interface). This interface will be user friendly. There will be a login screen which would initiate the initial login process. If the details are wrong a pop would be generated automatically.

The user is also offered the choice of canteens they want to order from.

Also a profile tab is offered which would tell the user about his/ her personal details, account details, etc.

Also the user has the option to see their order status.

Other than this some other interfaces include an order history, a feedback form, a leader board, etc.

3.2. Hardware Interfaces

There are three external hardware devices used by the VIT-CM. These devices are the surface computers, the wireless tablets and the touch displays. All three devices must be physically robust and immune to liquid damage and stains. The devices (with the possible exception of displays) must also have good industrial design aesthetics, as they are to be used in place of normal restaurant tables and notepads and will be in direct contact with customers. The devices behave as 'terminals' in the sense that they never have a full system image, do not store data and are not used for the core logic of the system. However, they should be fully capable computers that can use textual data from the server along with local UI/interpretation code to display UI elements and take input. All order and transaction

records should be stored on the server, not these computers. The performance of dumb terminals over an area the size of a restaurant is likely to be unacceptable. In all three cases, the hardware device takes information from the VIT-CM and processes the information to display. It also provides user input information to the VIT-CM.

3.3. Software Interfaces

The VIT-CM will interface with a Database Management System (DBMS) that stores the information necessary for the software to operate. The DBMS must be able to provide, on request and with low latency, data concerning the restaurant's menu, employees (and their passwords) and available dietary requirements. Additionally, it should take and archive data provided to it by the VIT-CM. This data will include records of all orders and transactions (system states and state changes) executed by the VIT-CM. The DBMS must store all data such that it can be used for accounting, as well as accountability.

3.4. Communications Interfaces

The website would be readily accessible through a normal internet connection as the user must have the option to order from anywhere on the move, making the software more flexible.

4. System Features

This section presents the important features and their respective requirements, their priority based on a certain scale, and the user

actions and response sequence that stimulate the behavior of the feature. Initially all the general requirements that pertain to the whole system are given.

4.1. General Requirements

Table 4.1.1 presents the identified functional general requirements that directly relate to the entire subject VIT-CM.

Requirement	Description
G01	A server shall host the VIT-CM and provide system data processing and storage capability.
G02	A surface computer shall provide a customer with all customer system functionality.
G03	A display shall provide a chef with all chef system functionality.
G04	All system functionality shall be accessible through touch sensitive surface computers, tablets and displays via simple touch gestures.

Table 4.1.1 Functional General Requirements

4.2. Logging into the System

4.2.1. Description and Priority

This is the foremost and important feature which distinguishes the working of the software system for students/ Teachers, Chef and the admin respectively. After logging in via respective login, the different users would be able to explore the features of VIT-CM which are made for them specifically.

4.2.2. Stimulus/ Response Sequence

On opening the website through any device this is the first thing that will pop up to the user. After logging in using the correct credentials only the user is allowed to use the software further. For any wrong credentials passed, the user will be prompted with an error.

4.2.3. Functional Requirements

REQ-1: A customer shall be able to log in using their assigned username and password.

REQ-2: A chef shall be able to log in using their assigned username and password.

4.3. Choosing the Canteen to eat for the Customer Login

4.3.1. Description and Priority

After logging in using a customer account, the first feature that a customer gets is to choose the canteen he/ she wants to eat from a list of canteens. This feature is very essential as it separates our proposed system the most from the existing system as the user is offered the choice to choose from his/ her desired canteen.

Priority: High

4.3.2. Stimulus/ Response Sequence

After logging in as a customer, this is the first screen that will load on the screen offering the user to choose a canteen from a list of canteens on the screen.

4.3.3. Functional Requirements

REQ-1: A customer shall be able to navigate through the available canteens on the screen.

REQ-2: A customer shall be able to choose a canteen corresponding to the canteens available in the list.

4.4. Order Management for Customer Login

4.4.1. Description and Priority

After choosing the canteen, the respective menu is loaded from which the customer can choose the item he/ she wants to eat. The user can add items to the cart and can also remove it when he wants. Considering the priority, this feature is one general feature that should be definitely offered to the customers.

Priority: High

4.4.2. Stimulus/ Response Sequence

Immediately after choosing the canteen from the list, the respective canteen menu is loaded up. The user has a cart in which he can manage his/ her order.

4.4.3. Functional Requirements

REQ-1: A customer shall be able to navigate through the available items in their engaged menu.

REQ-2: A customer shall be able to add an item to a pending order by increasing the quantity corresponding to the item in the menu.

REQ-3: A customer shall be able to remove an item to a pending order by decreasing the quantity corresponding to the item in the menu.

4.5. Order Placement only after Payment

4.5.1. Description and Priority

The order in the cart would be only processed if the payment is done for that order. This is a very essential feature as it not only makes the system more secure but also decreases the chances of food wastage as only the specific orders would be processed which have been paid of which at least 95% would be consumed.

Priority: High

4.5.2. Stimulus/ Response Sequence

After the order has been finalized by the customer, he can only proceed further if he/ she pays for the order from the cart option.

4.5.3. Functional Requirements

REQ-1: A customer shall be able to place an order through their engaged menu if it is pending and not empty.

REQ-2: The order should be further processed only after the payment has been made.

4.6. Menu Management for the Chef Login

4.6.1. Description and Priority

The chef has the feature to update the menu as per the availability of the ingredients. Also it makes the system more dynamic as the customers might get bored of the

same menu over weeks or days. Though this feature adds further dynamism to our software, it's not as essential as the other features.

Priority: Low

4.6.2. Stimulus/ Response Sequence

After logging in as Chef, the user can use this feature. The changes would be reflected as soon as the changes are made.

4.6.3. Functional Requirements

REQ-1: The Chef should be able to navigate through the available items in their engaged menu.

REQ-2: The Chef should be able to add an item to the existing menu.

REQ-3: The Chef should be able to remove an item from the existing menu.

4.7. Order Cancellation and Complete Refund

4.7.1. Description and Priority

If the user due to some situation is not able to take the order, he/ she can cancel his order and get the full refund of the order made. This particular feature is yet another general feature but makes the software much more efficient.

Priority: Medium

4.7.2. Stimulus/ Response Sequence

The order can be cancelled from the order status which is available to the customers. The amount paid would be

refunded into the customer account following the cancellation.

4.7.3. Functional Requirements

REQ-1: A customer shall be able to cancel an order through their engaged menu if it is pending and not yet placed.

REQ-2: A customer shall be able to cancel an order through their order status if it is placed.

REQ-3: The payment must be refunded as soon as the order is cancelled.

4.8. Order Cancellation by Chef Login

4.8.1. Description and Priority

There are certain situations where the ingredients get finished over time on the same day, with stills some orders that contain those ingredients. In this situation the Chef has the option to cancel the order and the user will be prompted in his/ her order status so that he may change the order made and come up with a new order.

Priority: High

4.8.2. Stimulus/ Response Sequence

The orders would be visible to the chef on his screen as soons as they are made so he can process and cancel them accordingly.

4.8.3. Functional Requirements

REQ-1: A chef shall be able to accept a customer's order item through a display.

REQ-2: A chef shall be able to reject a customer's order item through a display.

4.9. Leaderboard for Canteens

4.9.1. Description and Priority

The software offers a leaderboard on which the employees are listed with their respective canteens and the sales made by them.

Priority: Low

4.9.2. Stimulus/ Response Sequence

The homepage has an option from where the employees can be viewed along with their canteens and the sales made by them.

4.10. Feedback option for Customer Login

4.10.1. Description and Priority

The customers have the option to give the feedback to any particular canteen based on their experience. Through the feedback the canteens may be able to improve on the basis of the feedback making the system much efficient.

Priority: Medium

4.10.2. Functional Requirements

REQ-1: The customer should be able to choose the canteen for which he/ she wants to give the review.

REQ-2: The customer should be able to write a review for the selected canteen.

REQ-3: The customer should be able to give a rating on a scale of 0- 10 for the selected canteen.

REQ-4: The customer should be able to successfully submit the feedback.

5. Other Nonfunctional Requirements

This section presents the identified non-functional requirements for the subject VIT- CM. These requirements of the system which are not mentioned explicitly in the functionalities but are implied. The subcategories of non-functional requirements given are safety, security, performance, software quality attributes and business rules.

5.1. Performance Requirements

Requirement	Description
P01	The server shall be capable of supporting no less than 200 concurrent connections from any combination of surface computers, tablets and displays.
P02	The server shall be capable of supporting an arbitrary number of surface computers, tablets and displays, that is, it

	shall provide no limit on how many devices are in the system.
P03	The server shall be capable of supporting an arbitrary number of active meals/orders, that is, no meals/orders shall be lost under any circumstances

Table 5.1.1 Performance Requirements

5.2. Safety Requirements

Requirement	Description
F01	The system shall log every state and state change of every surface computer, tablet and display to provision recovery from system failure.
F02	The system shall be capable of restoring itself to its previous state in the event of failure (e.g. a system crash or power loss).
F03	The system shall be able to display a menu

	at all times to facilitate manual order taking should the need arise.

Table 5.2.1 Safety Requirements

5.3. Security Requirements

Requirement	Description
Y01	The payment details and also the user's personal details should be kept highly secure so that no one can access them and use it for some unethical work.
Y02	A display shall not require a user to log in.
Y03	A password used for login must have a bit-strength of at least 64 bits.

Table 5.3.1 Security Requirements

5.4. Software Quality Attributes

5.4.1. Reliability

The system can be used by multiple users concurrently. The orders that have been paid must be processed and if not, should be prompted prior to the user.

5.4.2. Maintainability

The software must be reusable, analysable, modifiable as well as testable.

5.4.3. Robustness

The system should be able to handle extreme traffic in certain emergency situations and should not fail to deliver its purpose.

5.4.4. Security

The confidentiality, integrity, accountability, authenticity of the user's information must be maintained by the system.

5.4.5. Functional Suitability

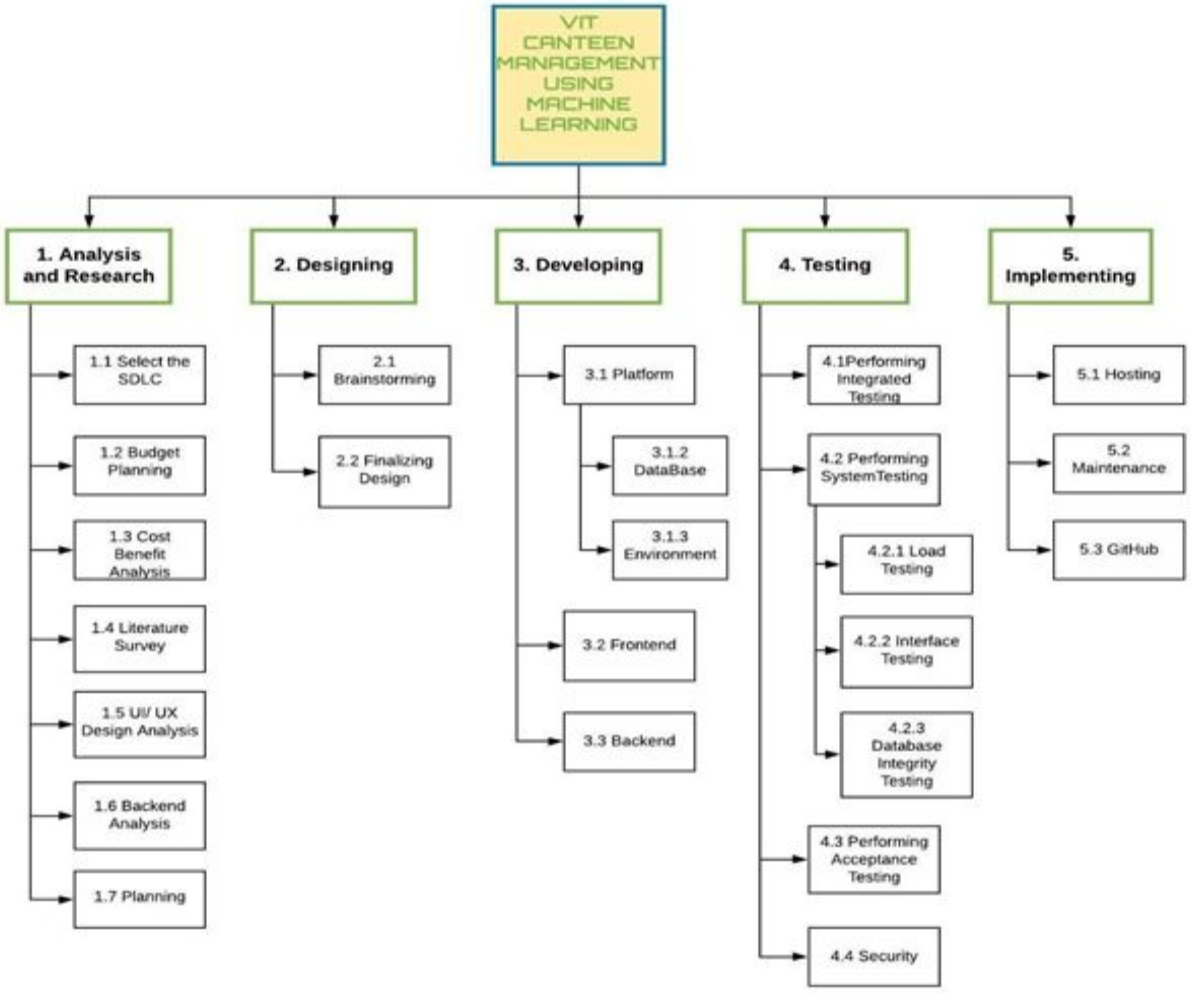
The software must be functionally complete, functionally correct, and functionally appropriate.

6. Other Requirements

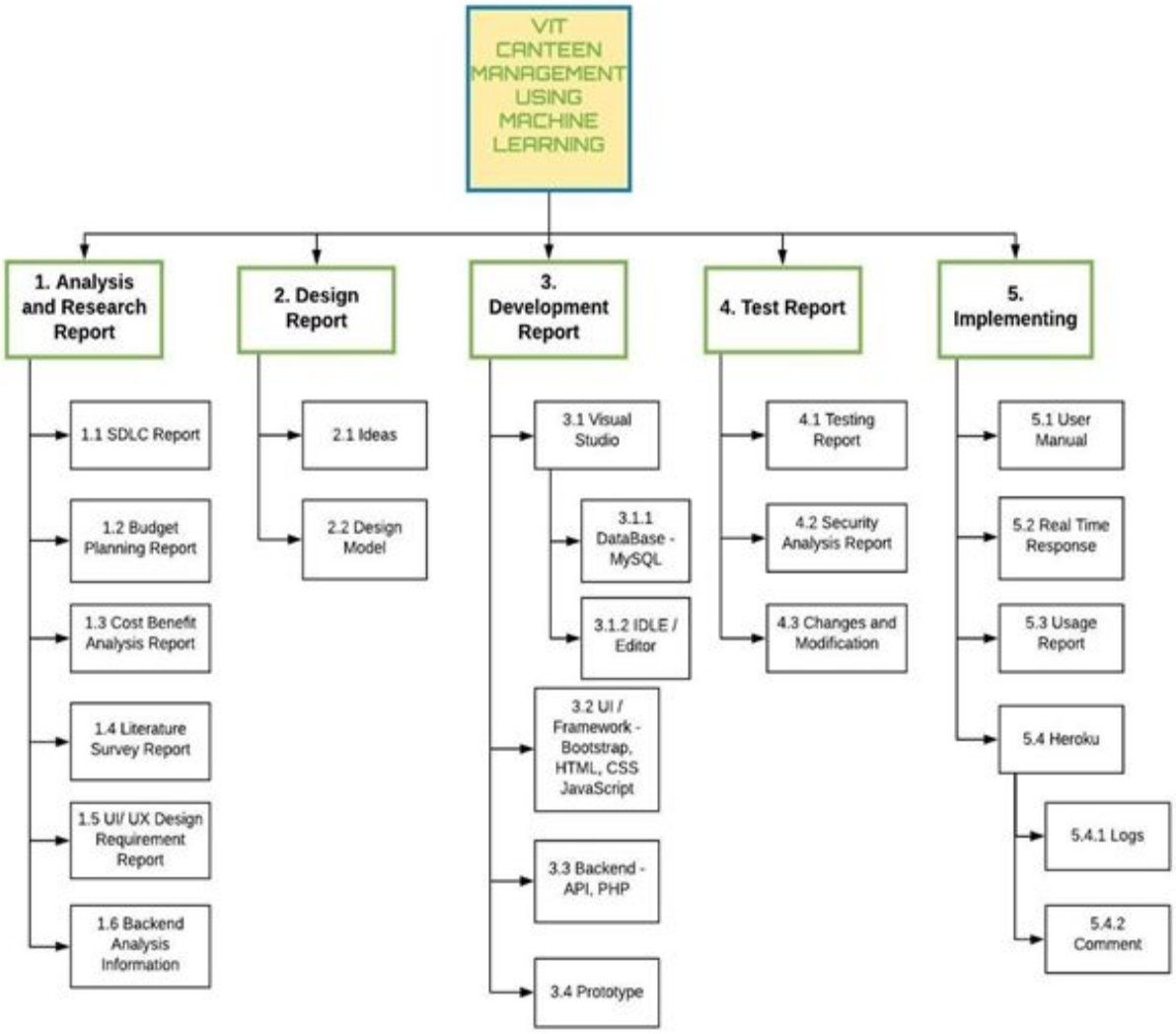
No other requirements as such. All the requirements have been covered in the SRS. If any other requirement is needed to be added, it will be added in future versions of this document.

3.2.6. Work Breakdown Structure

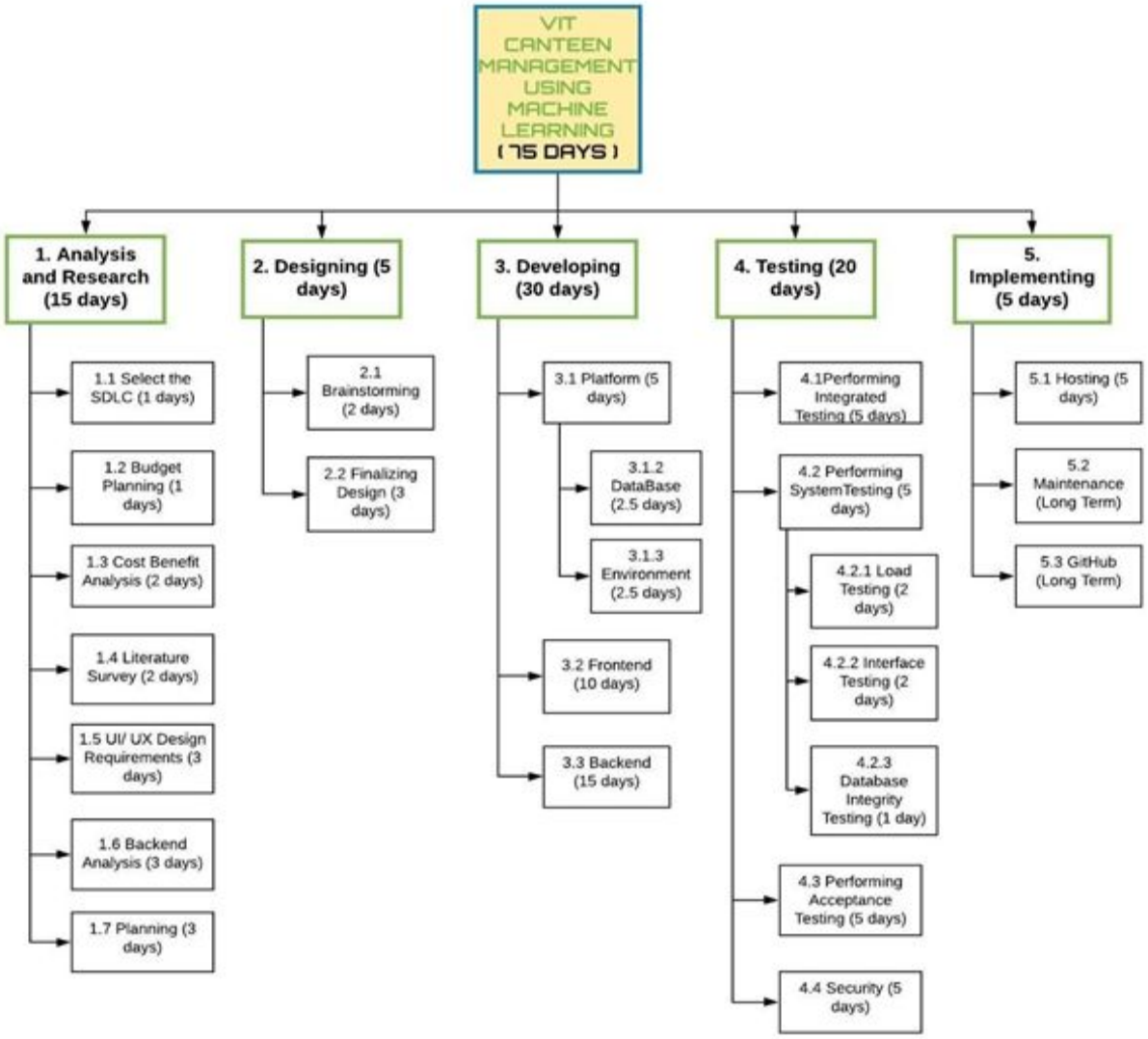
A work-breakdown structure (WBS) in project management and systems engineering, is a deliverable-oriented breakdown of a project into smaller components. A work breakdown structure is a key project deliverable that organizes the team's work into manageable sections. "A hierarchical decomposition of the total scope of work to be carried out by the project team to accomplish the project objectives and create the required deliverables."



Verb Oriented WBS

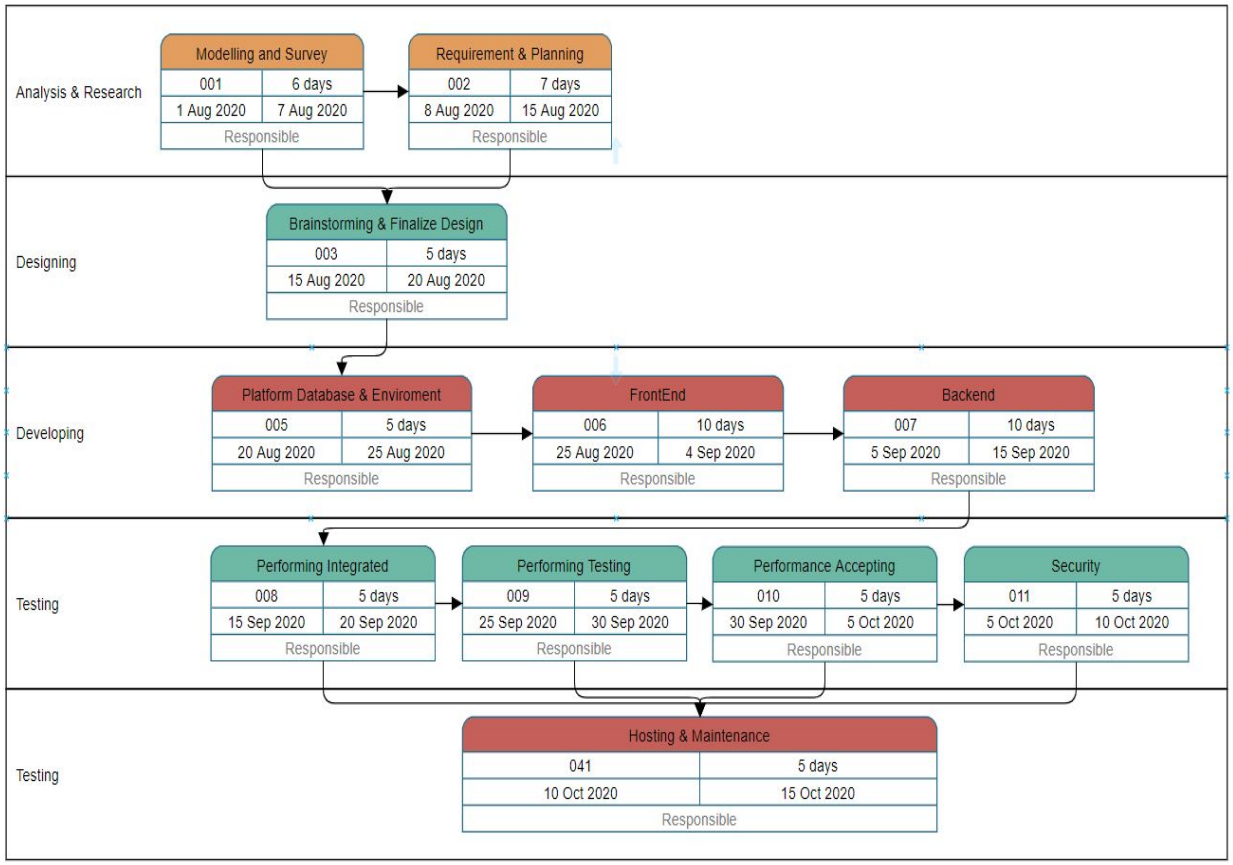


Noun Based WBS

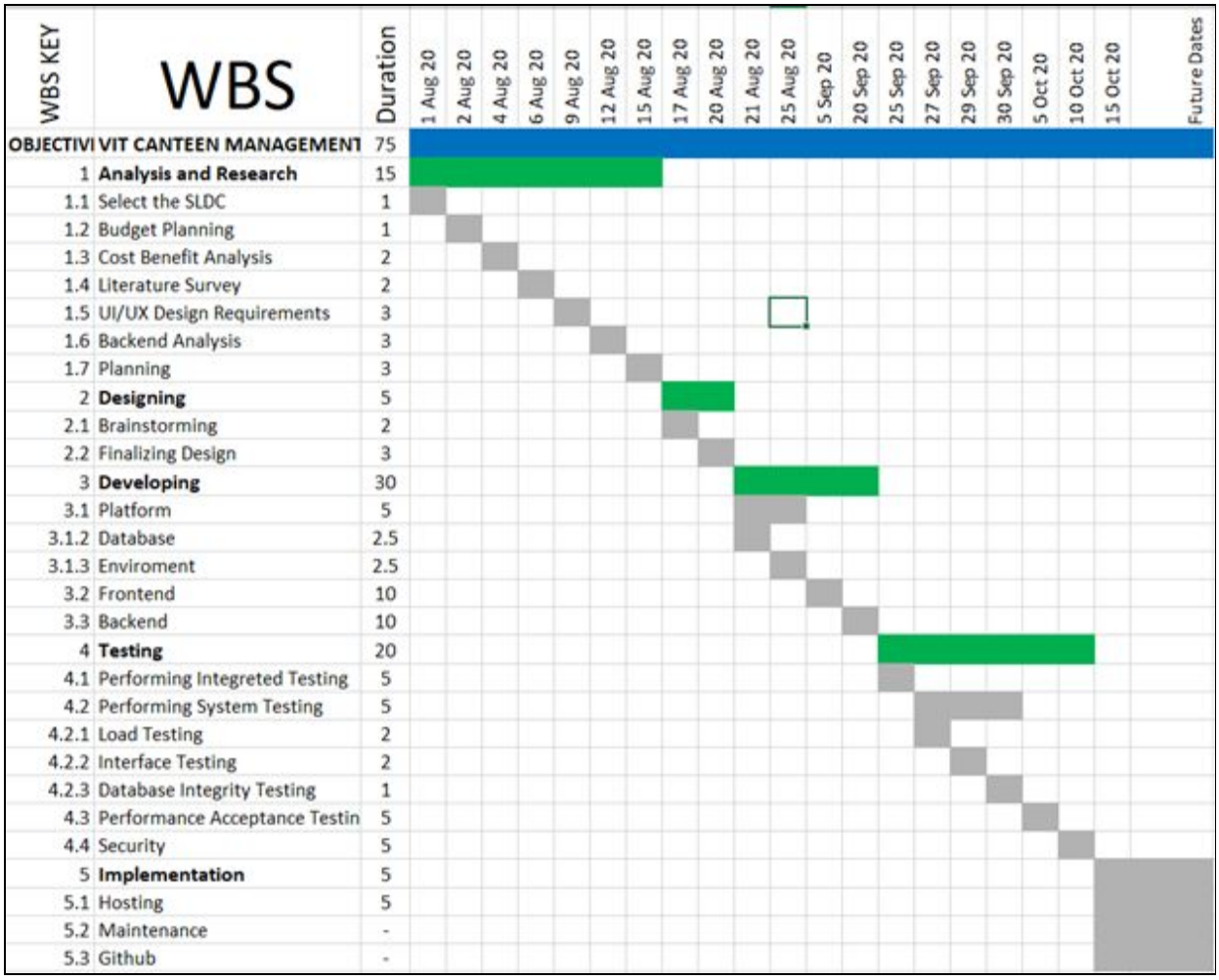


Time Based WBS

3.2.7. Pert Chart

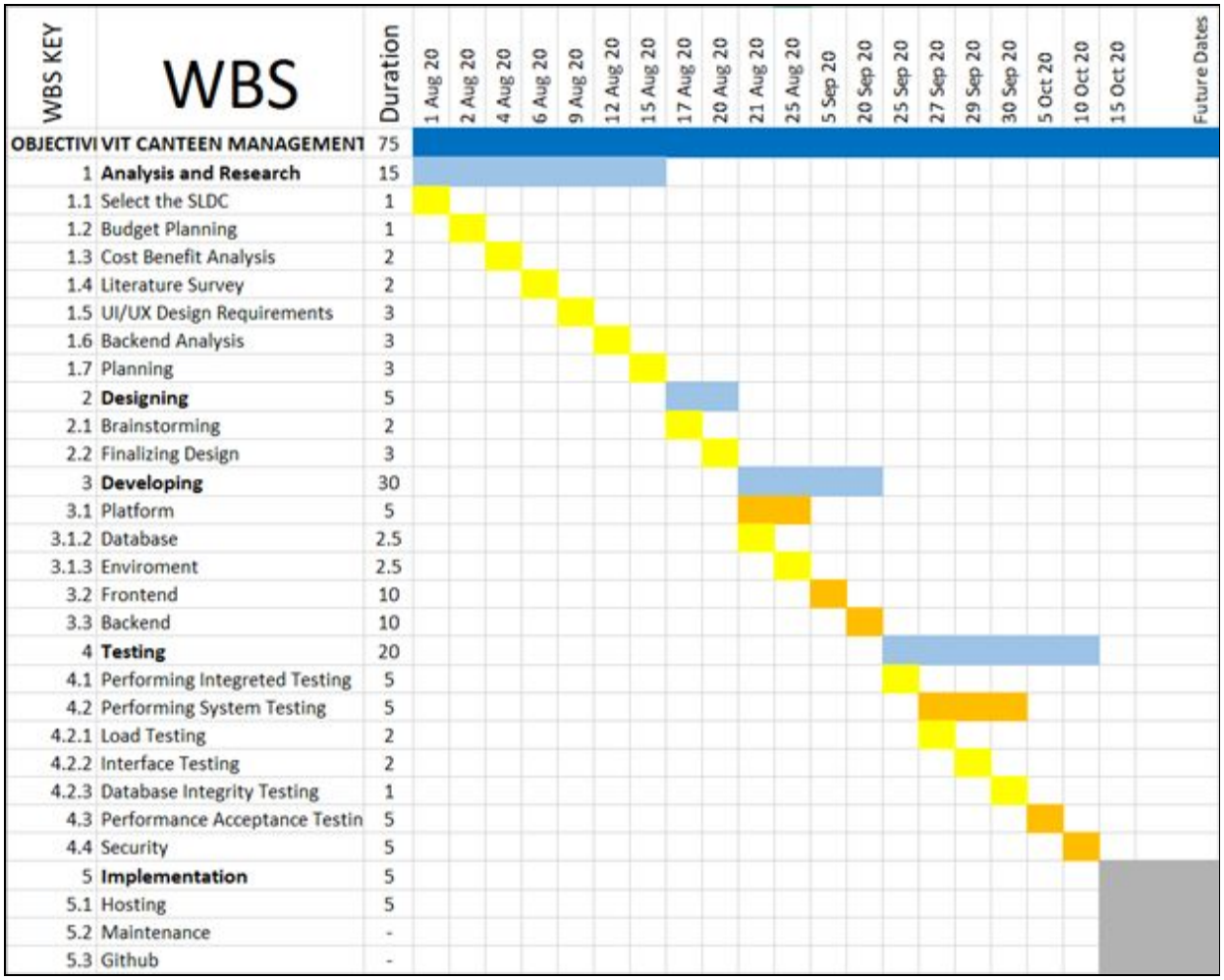


3.2.8. Gantt Chart



WBS KEY	WBS	Duration
OBJECTIVI	VIT CANTEEN MANAGEMENT	75
1	**Analysis and Research**	15
1.1	Select the SLDC	1
1.2	Budget Planning	1
1.3	Cost Benefit Analysis	2
1.4	Literature Survey	2
1.5	UI/UX Design Requirements	3
1.6	Backend Analysis	3
1.7	Planning	3
2	**Designing**	5
2.1	Brainstorming	2
2.2	Finalizing Design	3
3	**Developing**	30
3.1	Platform	5
3.1.2	Database	2.5
3.1.3	Enviroment	2.5
3.2	Frontend	10
3.3	Backend	10
4	**Testing**	20
4.1	Performing Integreted Testing	5
4.2	Performing System Testing	5
4.2.1	Load Testing	2
4.2.2	Interface Testing	2
4.2.3	Database Integrity Testing	1
4.3	Performance Acceptance Testin	5
4.4	Security	5
5	**Implementation**	5
5.1	Hosting	5
5.2	Maintenance	-
5.3	Github	-

This is the tentative chart prepared before starting the software development. The blue color depicts the complete project span. The grey cells denote the individual/ basic work done. These works with similar purposes are then clubbed further under a combined spanning green color.



In the above gantt chart, the orange coloured cells indicate that the tasks have been completed. Based on the above chart, it can be concluded that the project development is right on track, with no delays.

Analysing the above Gantt. Chart we can see that the task that is left is the implementation which further includes Hosting of websites. And further it can be inferred that we are currently lagging in the implementation aspect as the tentative schedule says 15th October and the date today is 16th October. Also, maintenance and Github updation is a constant task and hence can never be said as done/ completed.

4. Design of the Proposed System

4.1. Introduction

When the customer visits the ordering webpage, they are presented with an interactive and up-to-date menu, complete with all available options and dynamically adjusting prices based on the selected options. After making a selection, the item is then added to their order, which the

customer can review the details of at any time before checking out. This provides instant visual confirmation of what was selected and ensures that items in the order are, in fact, what was intended. This system also greatly lightens the load on the canteen's end, as the entire process of taking orders is automated. Once an order is placed on the webpage, it is entered into the database and then retrieved, in pretty much real-time, by a desktop application on the canteen's end. Within this application, all items in the order are displayed, along with their corresponding options and delivery details, in a concise and easy to read manner. This allows canteen employees to quickly go through the orders as they are placed and produce the necessary items with minimal delay and confusion.
The project is created by using HTML, CSS as the front-end language and PHP and MySQL as the backend one. Python as well as Google Colab is used to implement the machine learning part of the website. The complete tools used, the methodology along with the snippets of the implementation has been shown in the upcoming pages.

4.2. High level Design

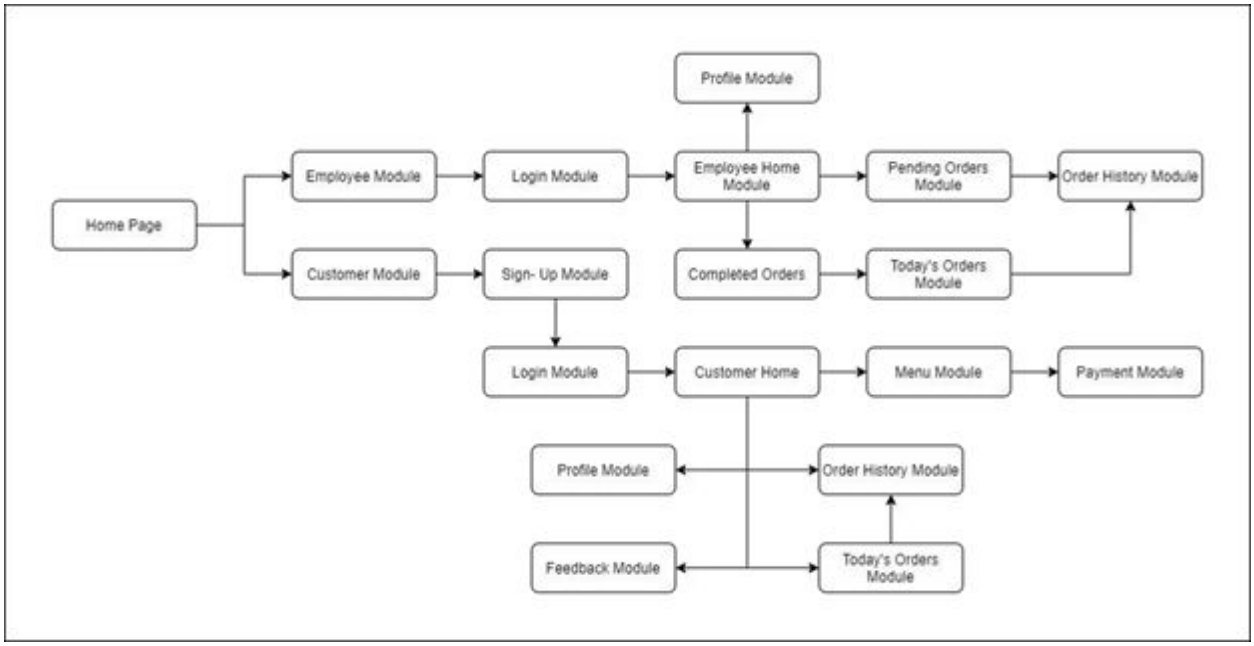
4.2.1. Architecture design

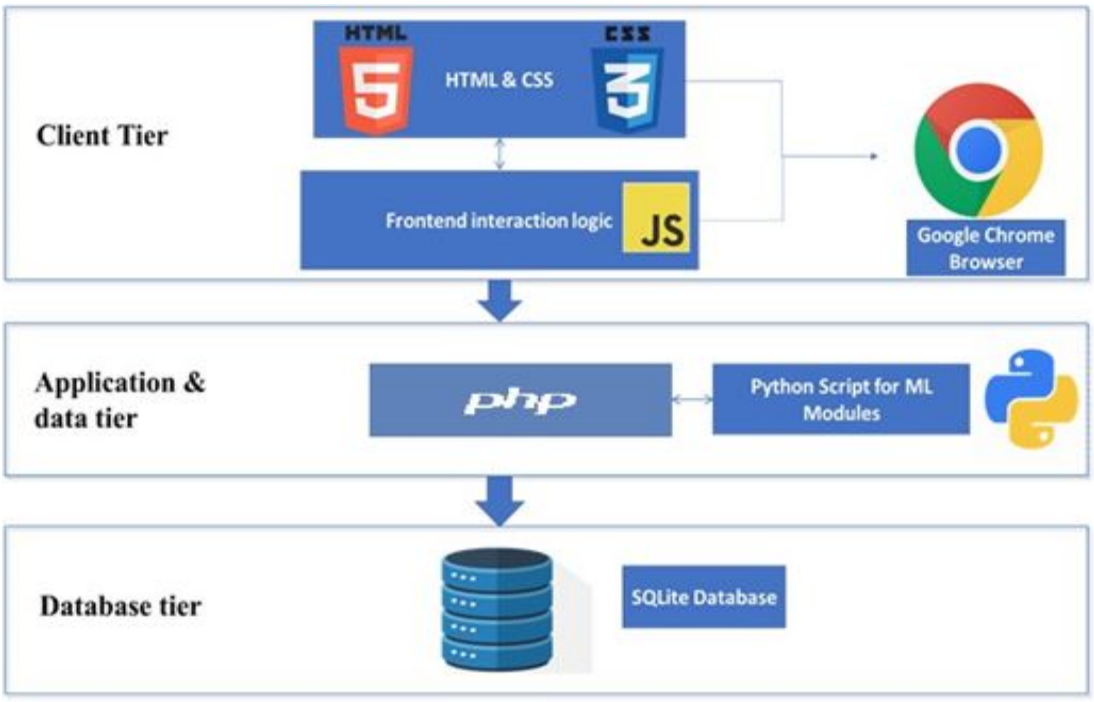
1. For our project, we would like to implement the Incremental Process Model.
2. As described in the abstract, the initial software requirements are reasonably well defined, but the overall scope of the development effort requires a linear process. After addition of basic features, we plan on expanding on that functionality in later software releases. Thus, we are using this SDLC to help us produce the software in increments.
- Software is developed for users; thus, it is very important to get their views and ideas.

The main motive behind choosing this model is that, after every single addition of basic features, we will get the customer's feedback, and accordingly we can modify or make changes to our system.
- Our software targets a remedy to the ongoing problems faced by students in canteens, like wrong dishes served or undercooked food, or standing in long queues. Thus, we need their feedback every time we make progress.

3. The incremental process model focuses on the delivery of an operational product with each increment, where the initial increments are stripped-down versions of the final product, but they do provide capability that serves the user and also provide a platform for evaluation by the customer.
4. This model will hopefully reduce errors. Also, using this divide and conquer approach will help us breakdown the task thus the initial delivery cost will be low.

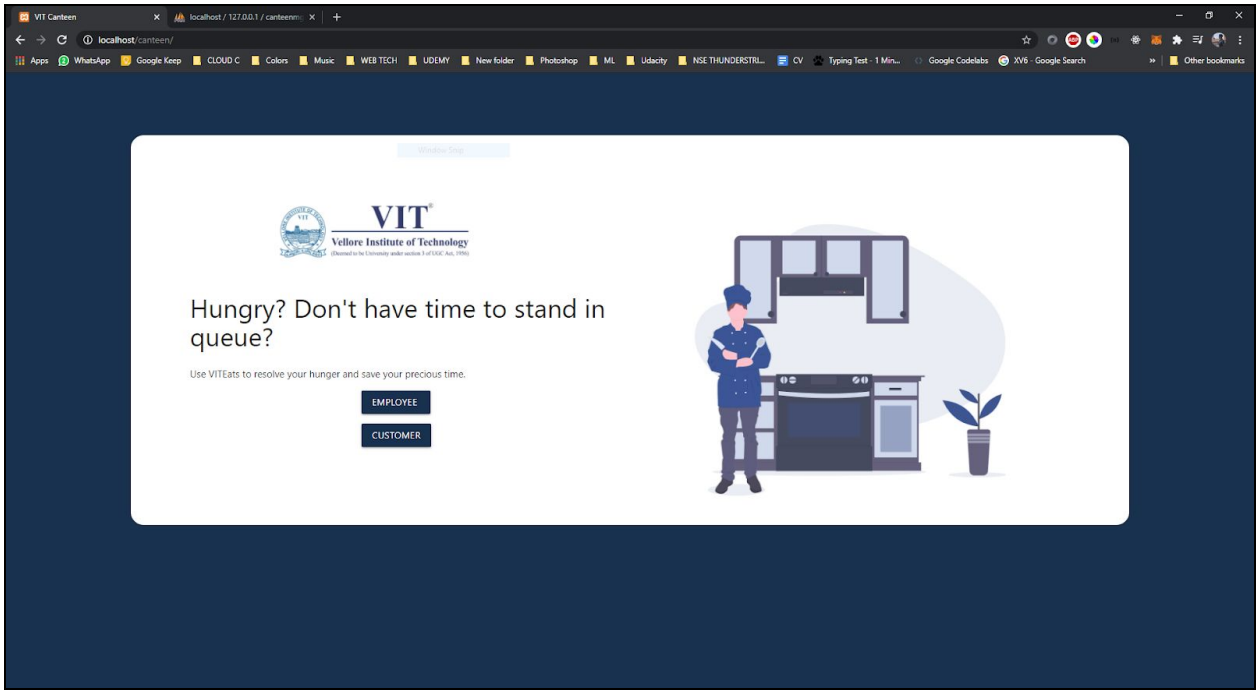
4.2.2. Architecture diagram



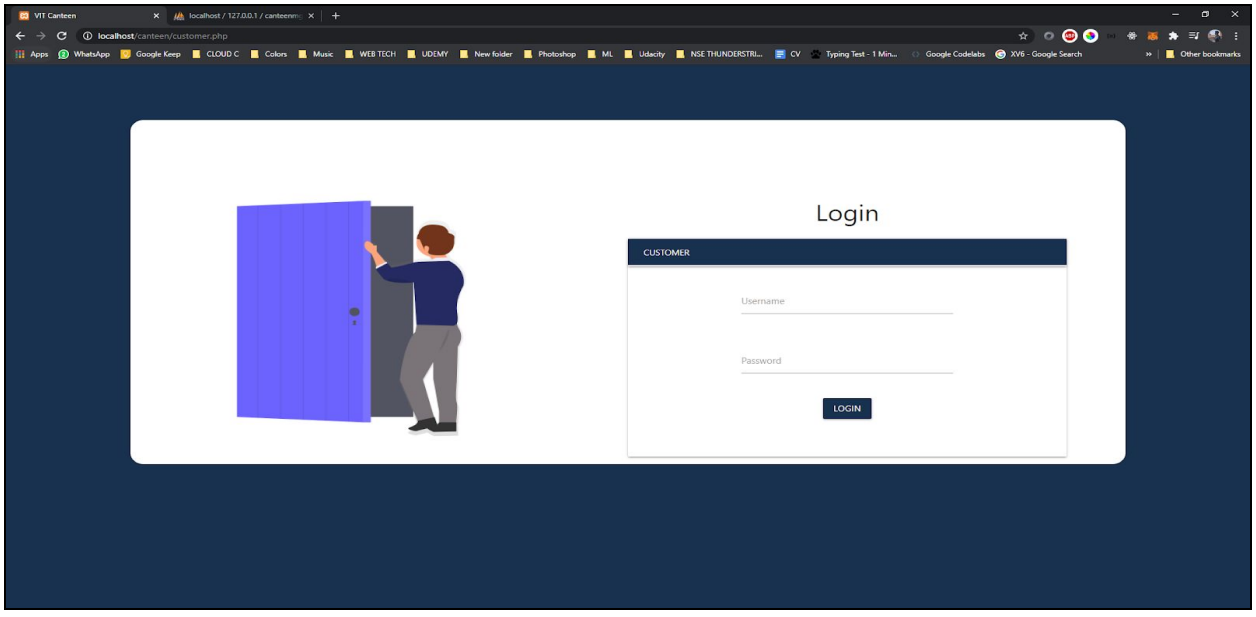


4.2.3. UI Design

The landing page for the users, where the user proceeds as either employee or customer.



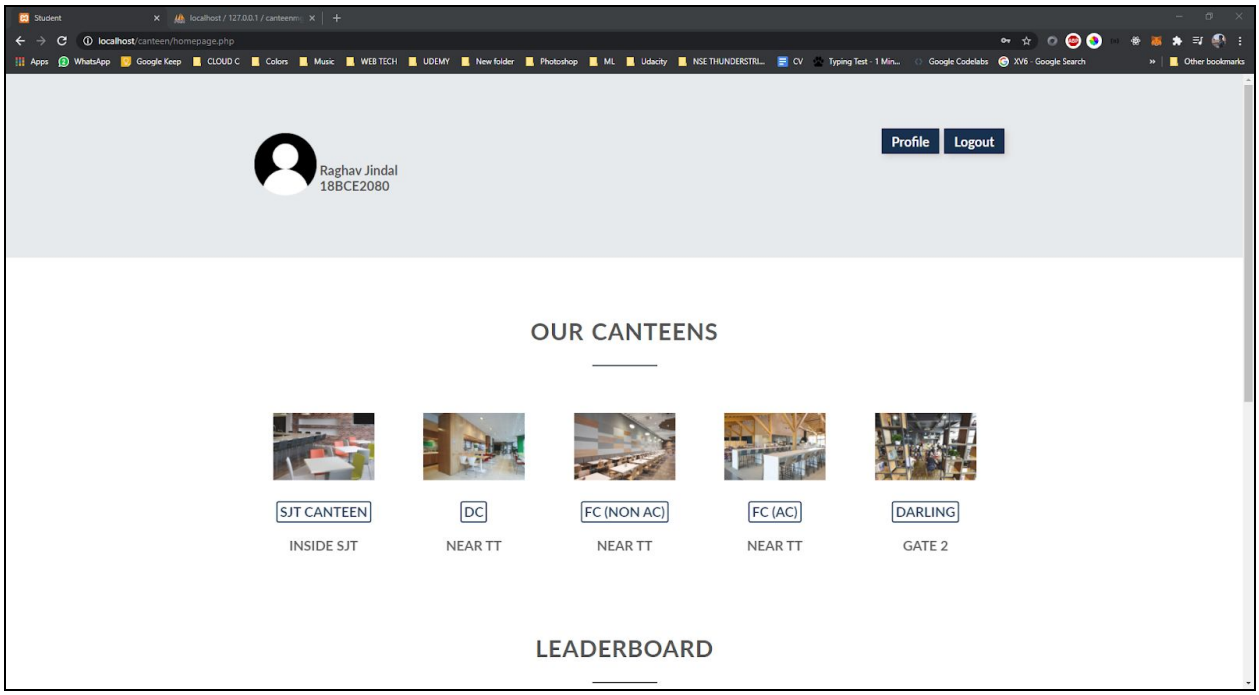
Customer Login, the password and the username being the same as provided to them via the VIT database.



Customer homepage, where all these details are displayed:

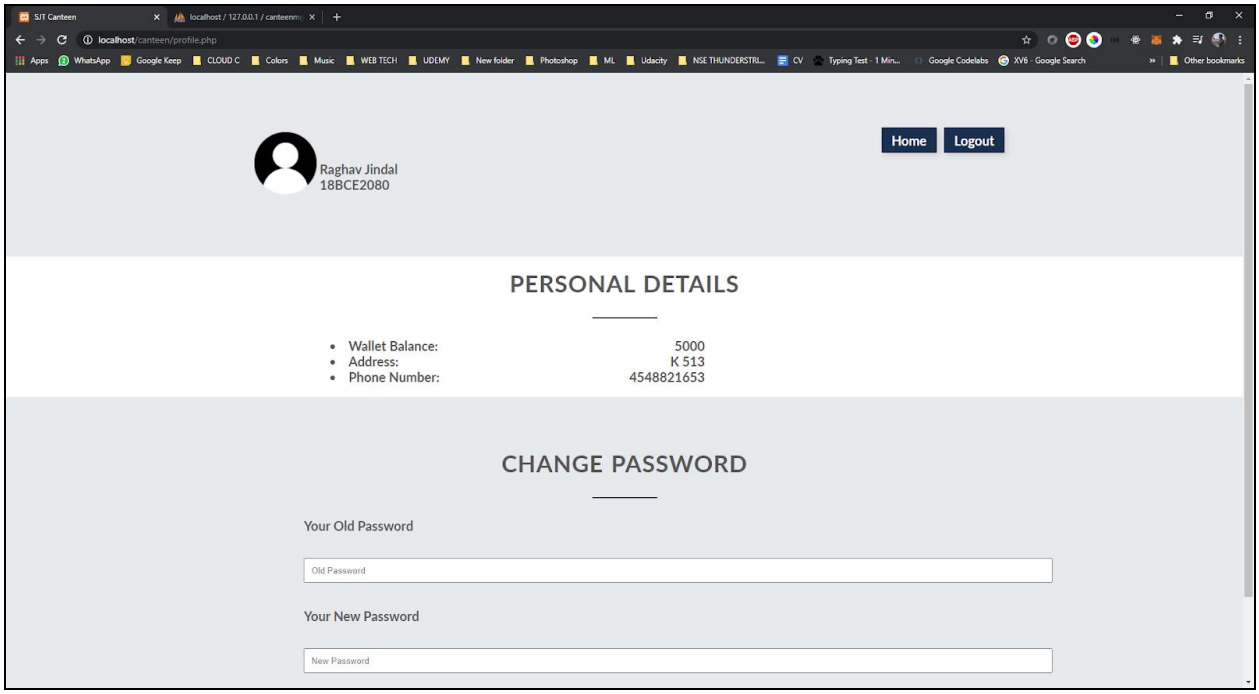
- Name, Registration Number
- All the canteens in the university, where the order can be placed at.

- The Leader board, which shows the best rated canteen and the canteen with most sales.
- The option of viewing the order statuses, along with the option of feedback

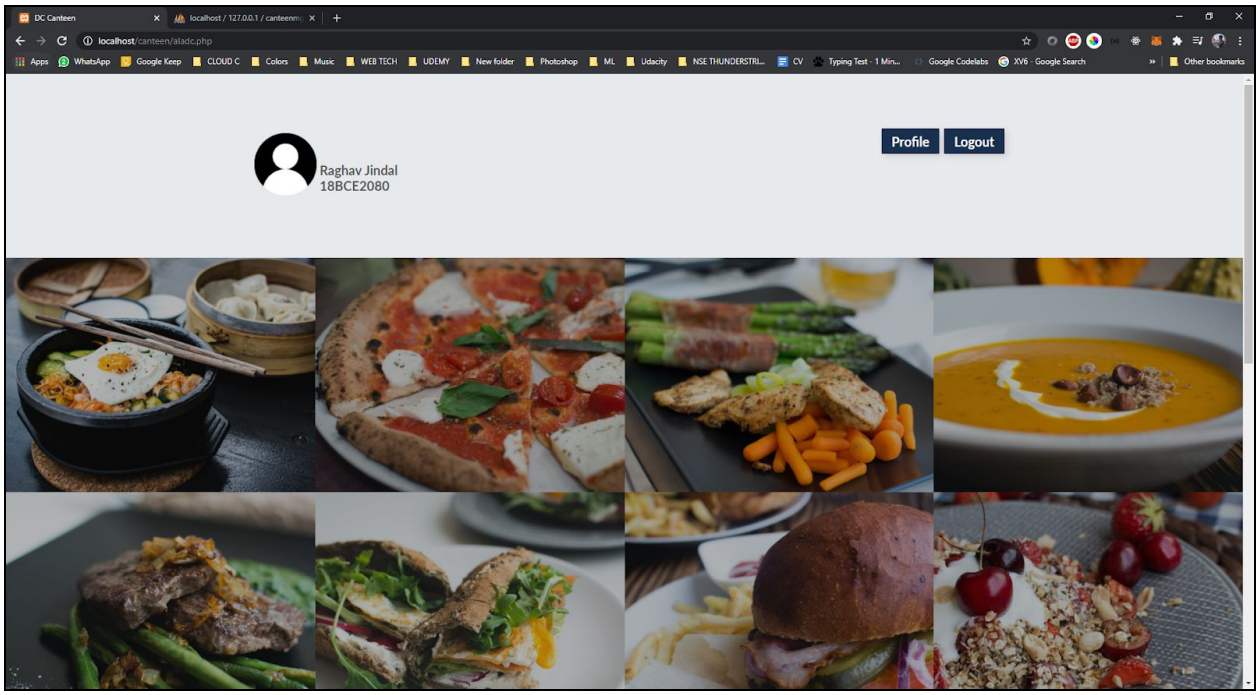


The ‘Profile’ of the customer displays these details. The wallet balance is the most important as the change in wallet amount keeps on taking place as and when the customer places an order, or is subject to cancellation of order.

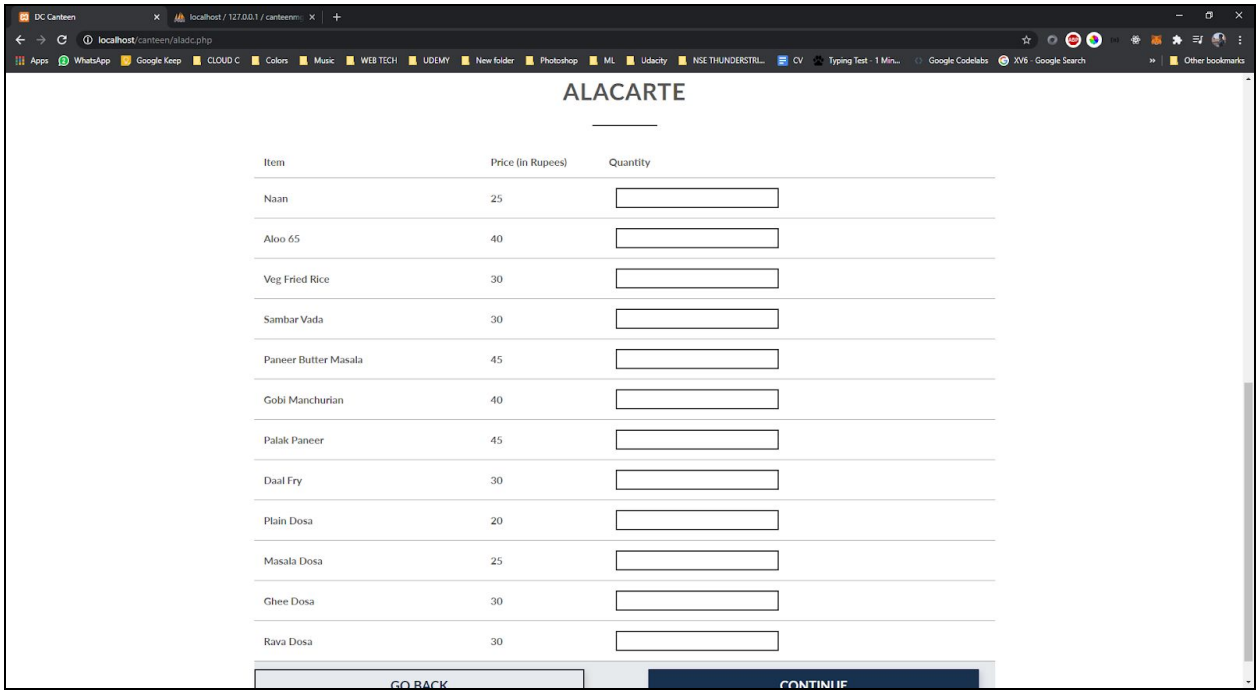
The user also has an option of changing the password provided to him.



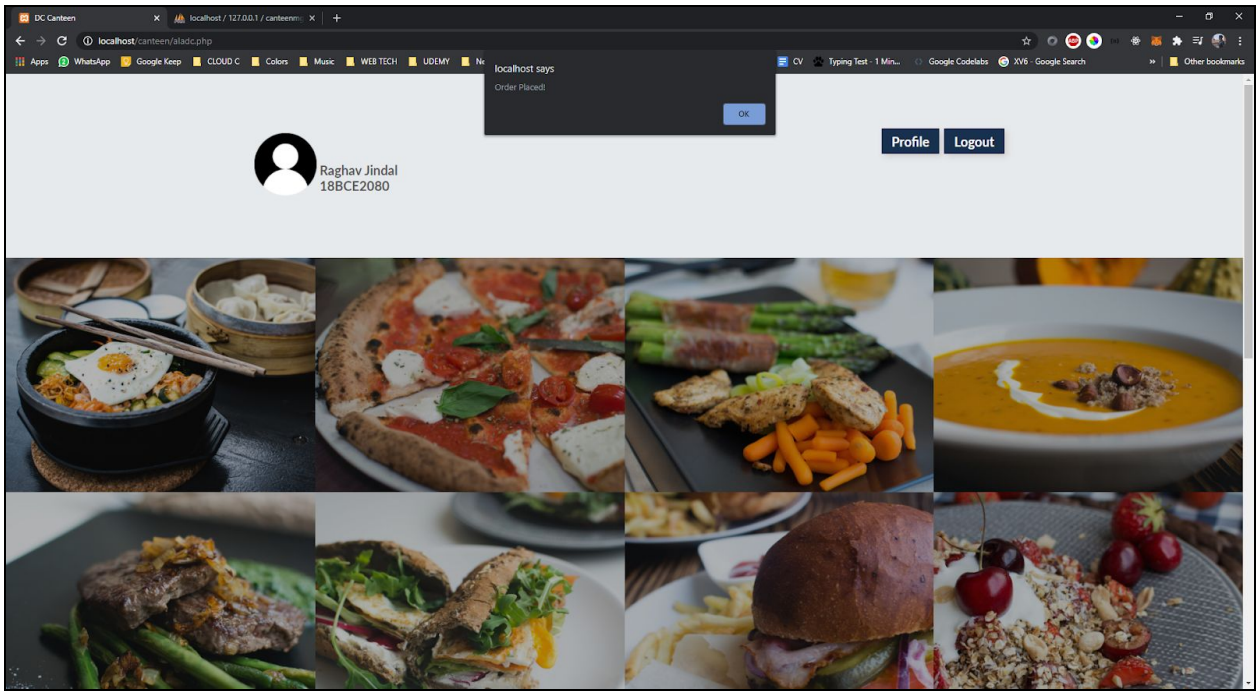
Moving on to the placement of order, on clicking any of the canteen, this is the page we land to.



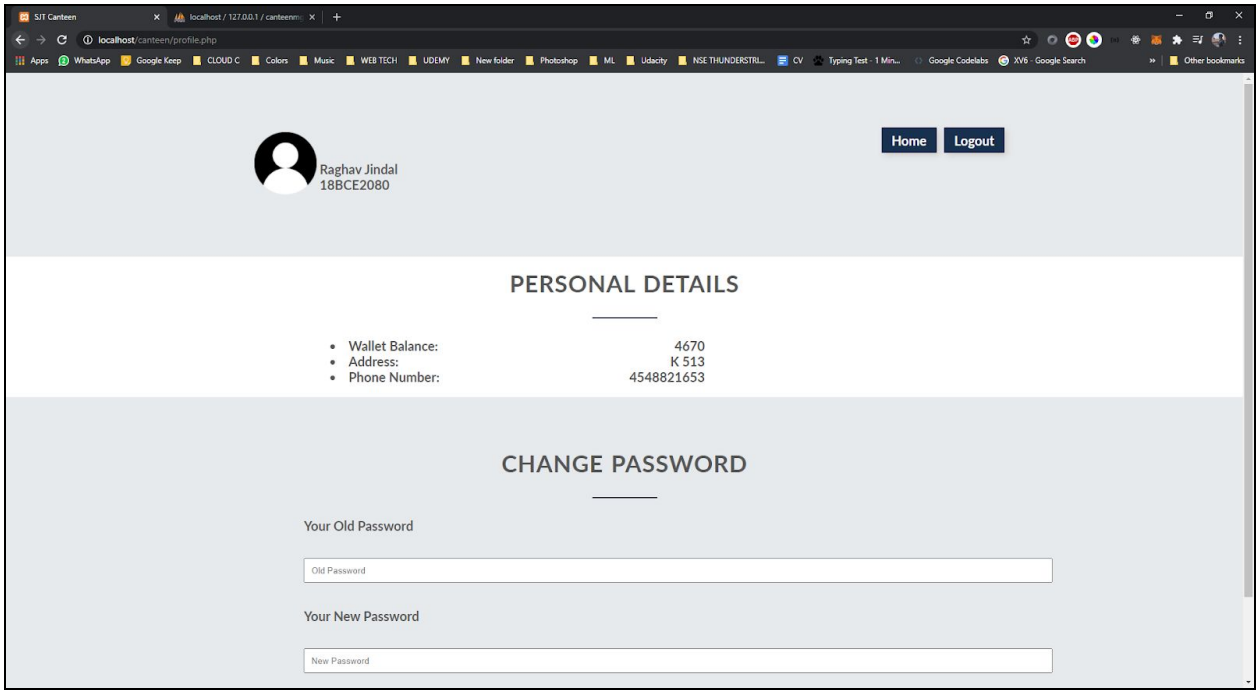
The Alacarte displays all the food items that are provided by the said canteen, the customer can log in the quantity of each food item and place the order.



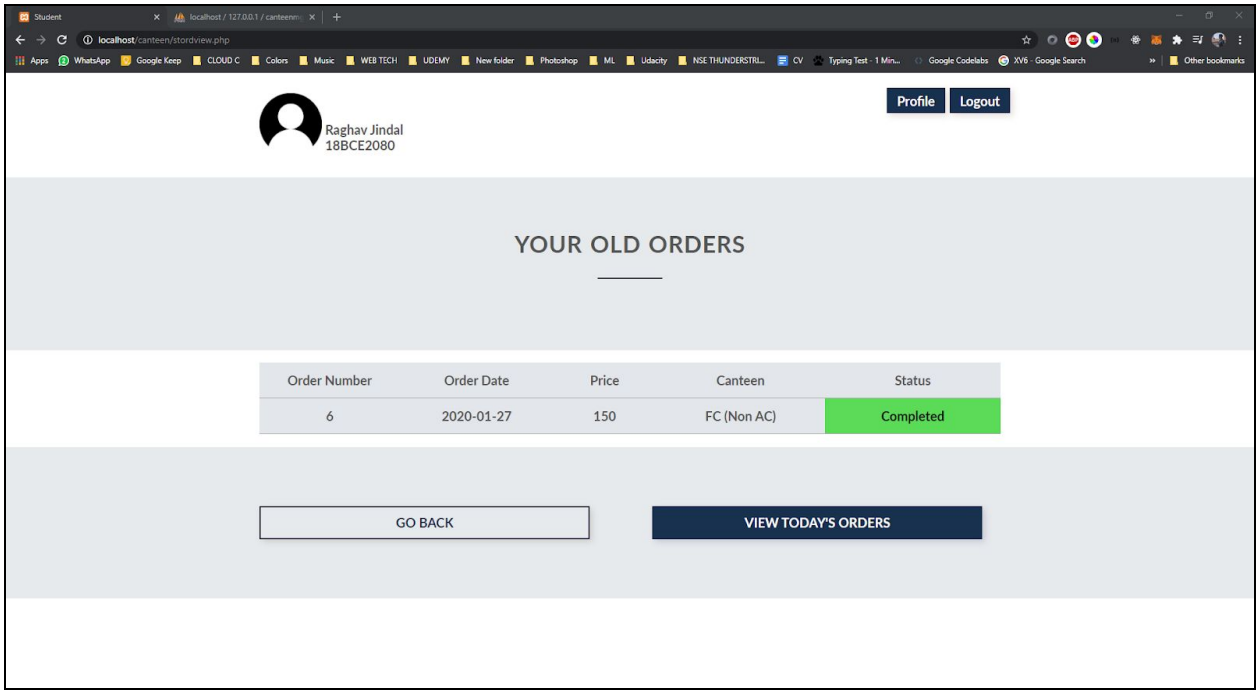
The order is successfully placed.



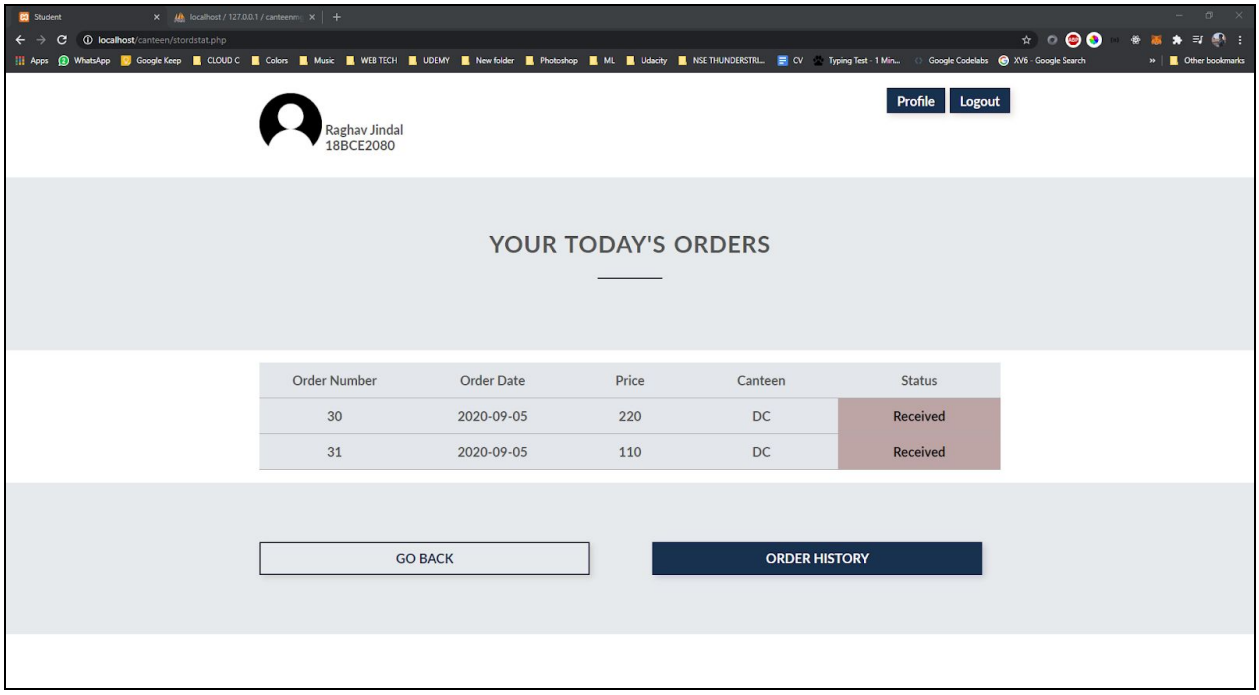
As soon as the order is placed, the wallet balance reduces by the cost of the order.



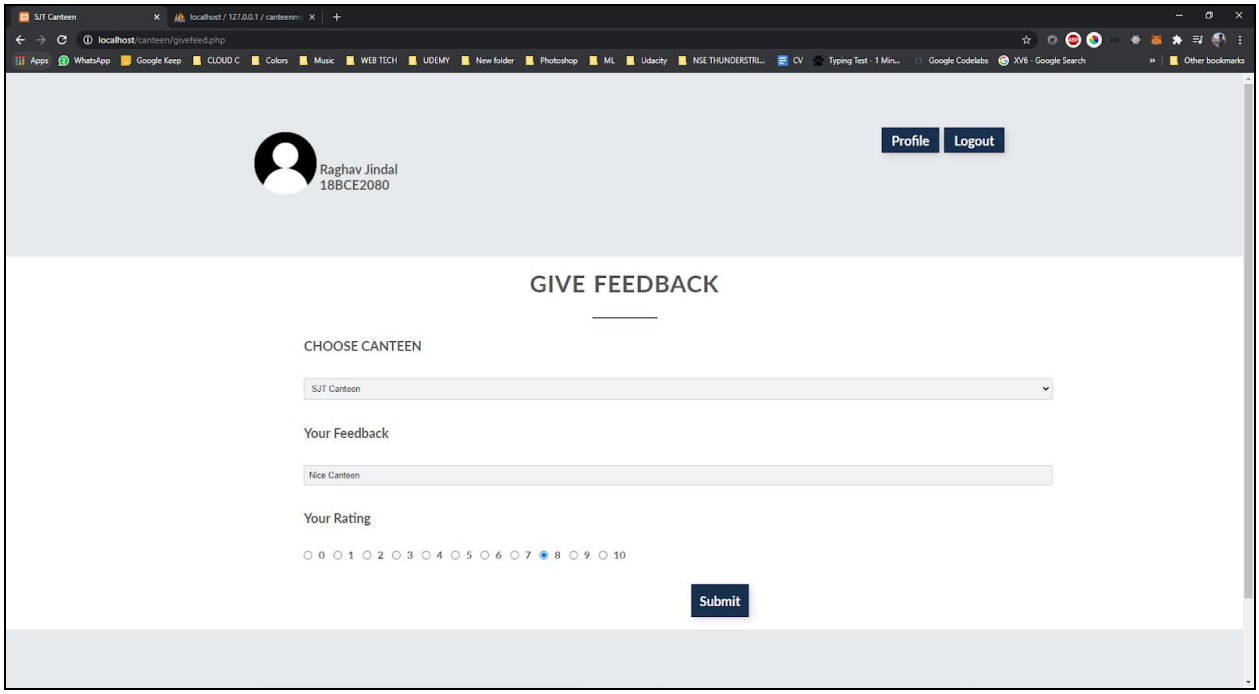
'Order History' shows all the orders placed by the customer till the previous day.



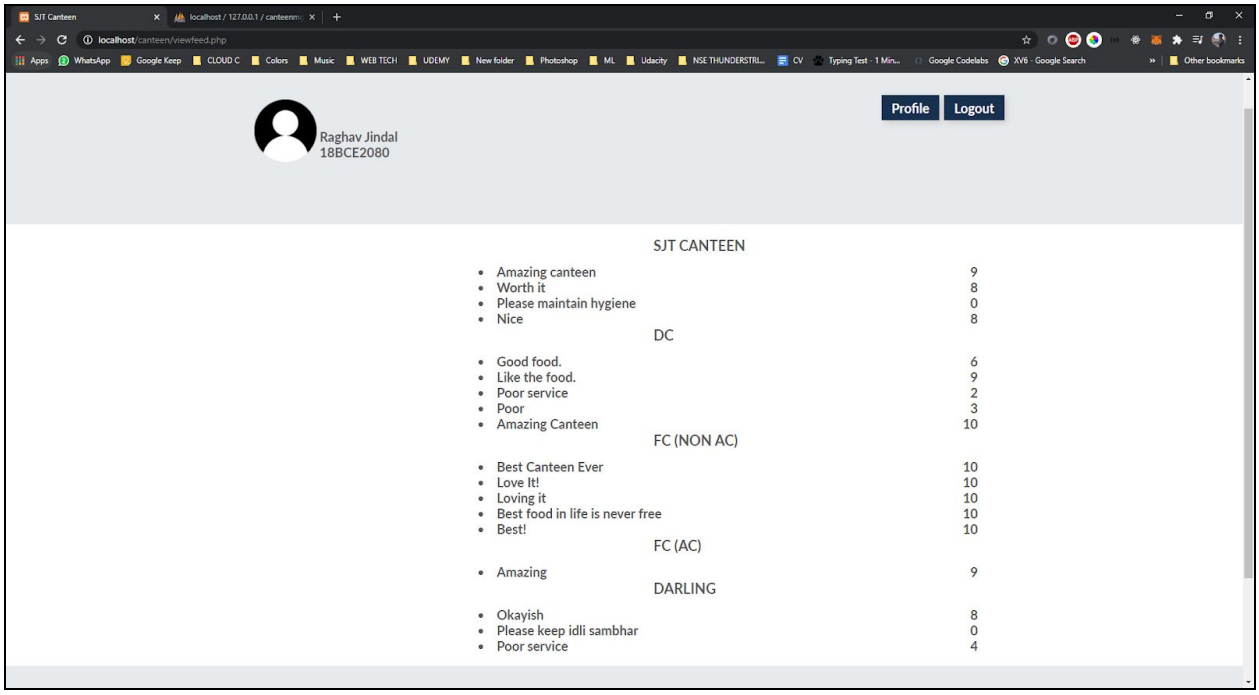
'Today's Orders' signifies the status of the order placed today, as given by the corresponding canteen.



'Give Feedback' allows the user to provide feedback to any particular canteen.

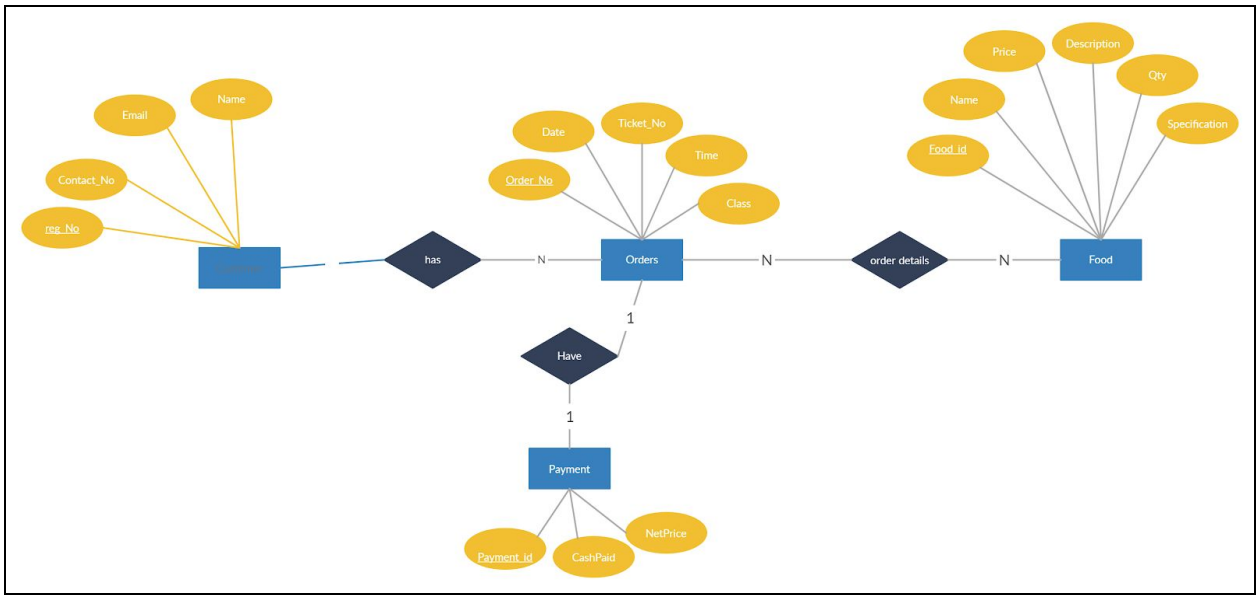


'View Feedback' allows for the customer to view all the feedback received by each canteen till date.



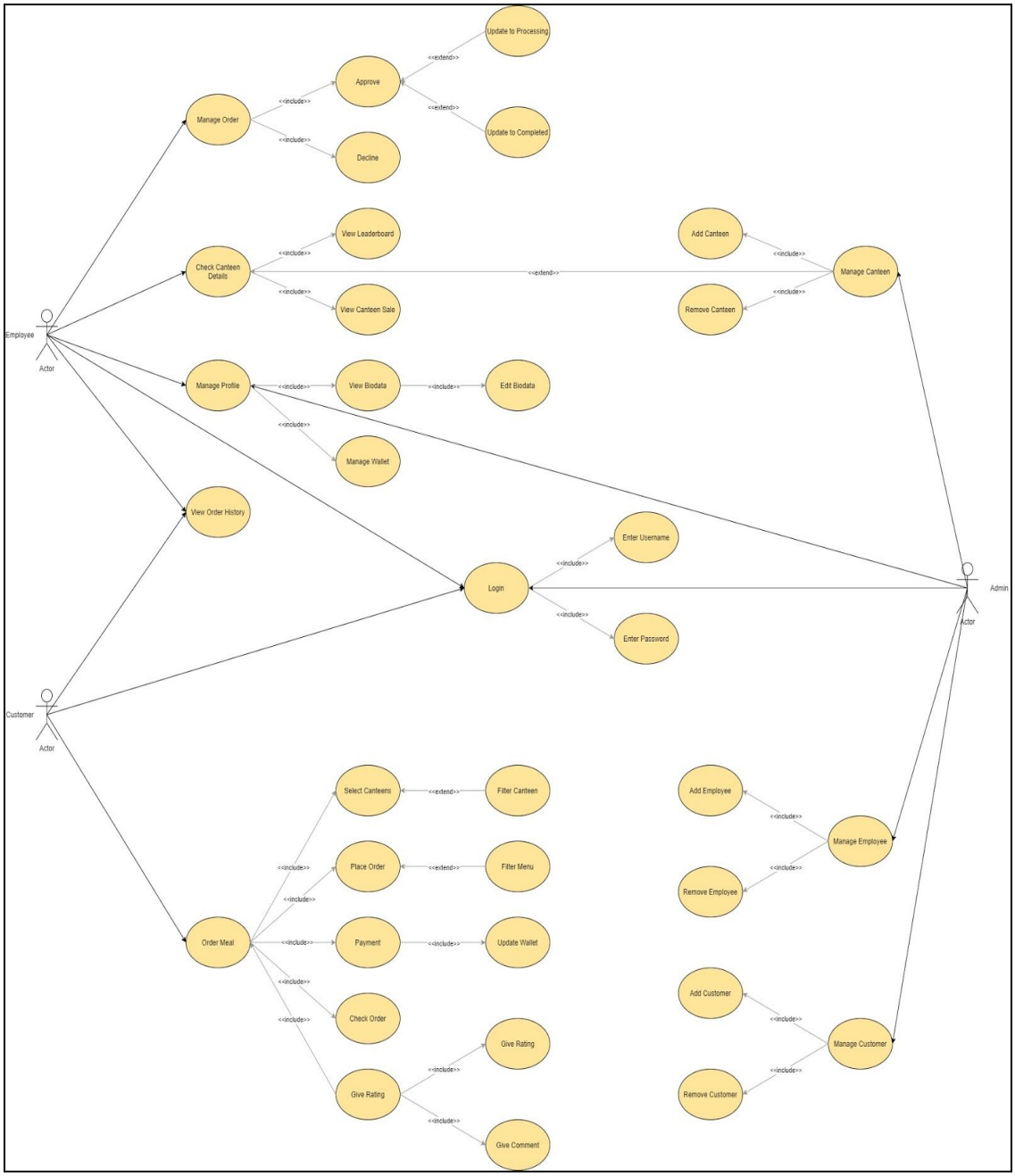
4.3. Detailed Design

4.3.1. ER Diagram

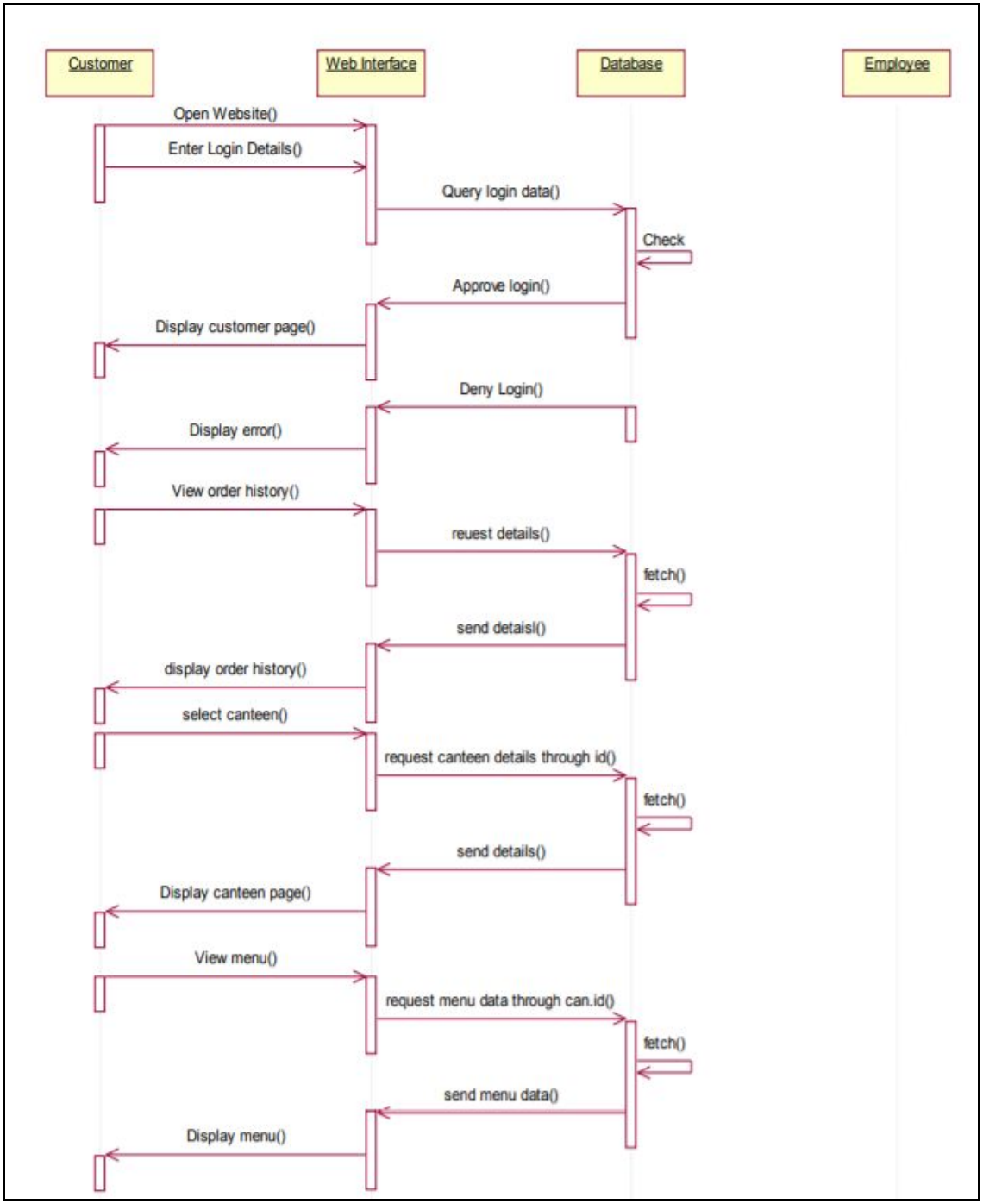


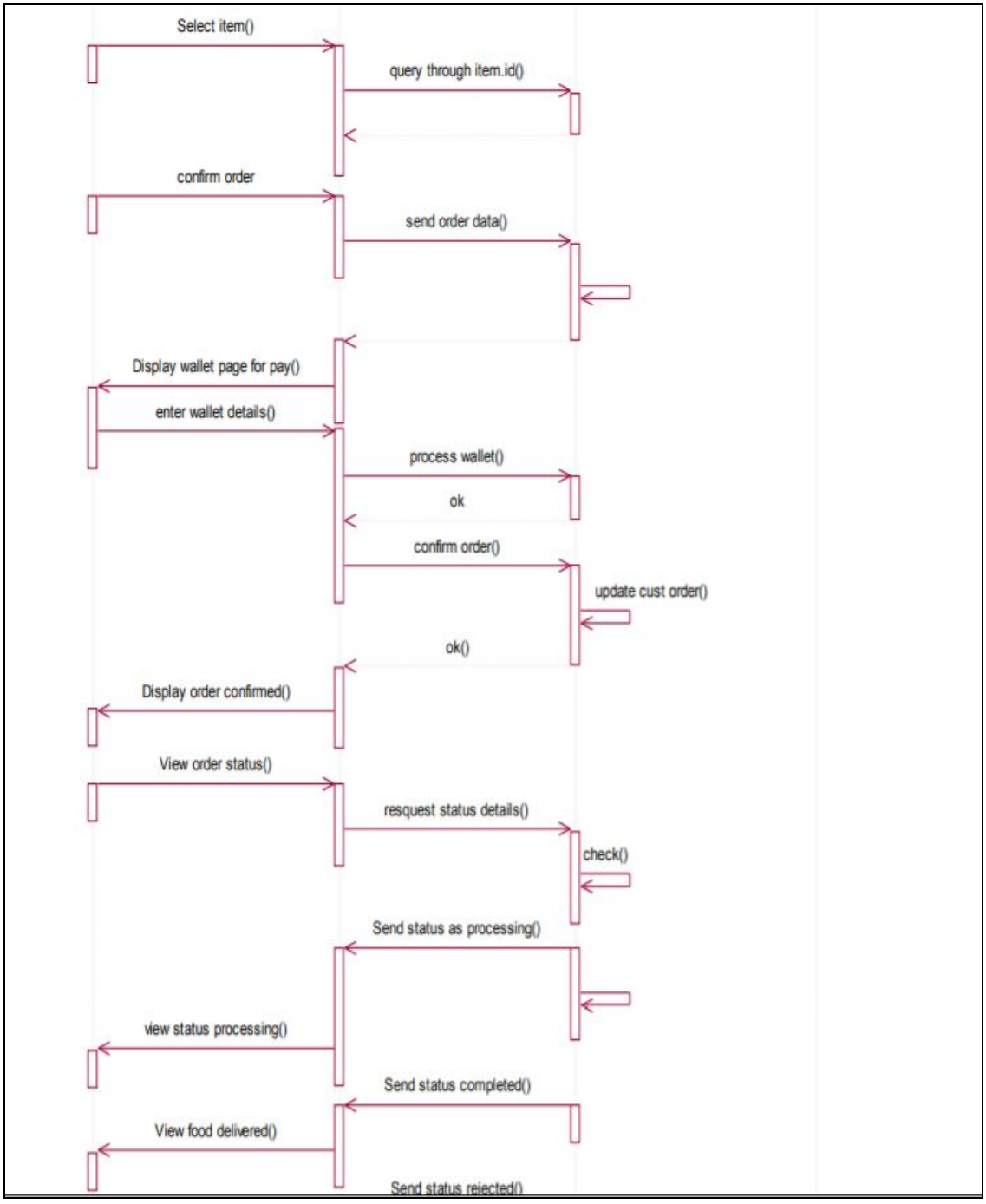
4.3.2. UML Diagram

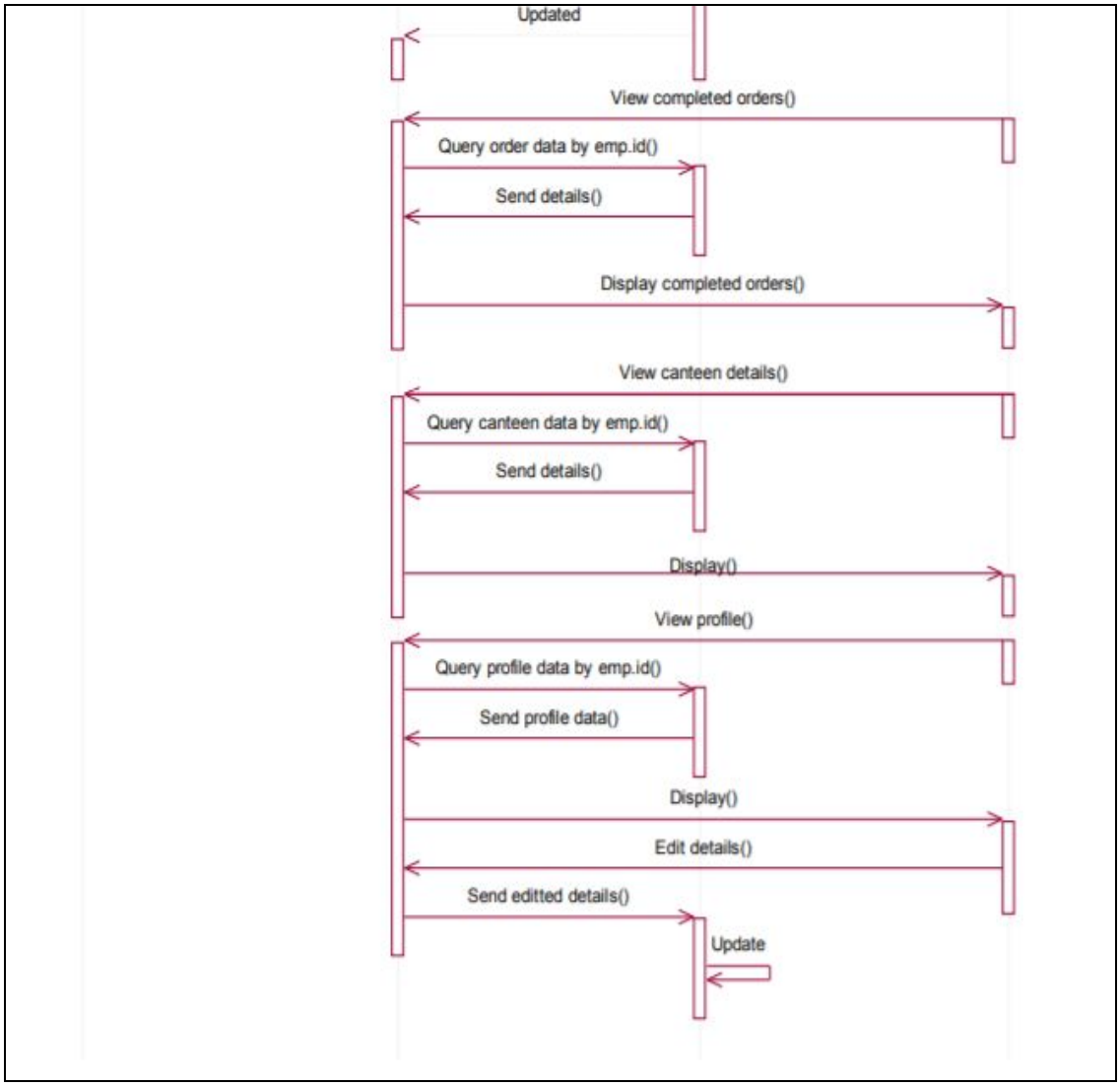
1) Use Case Diagram-



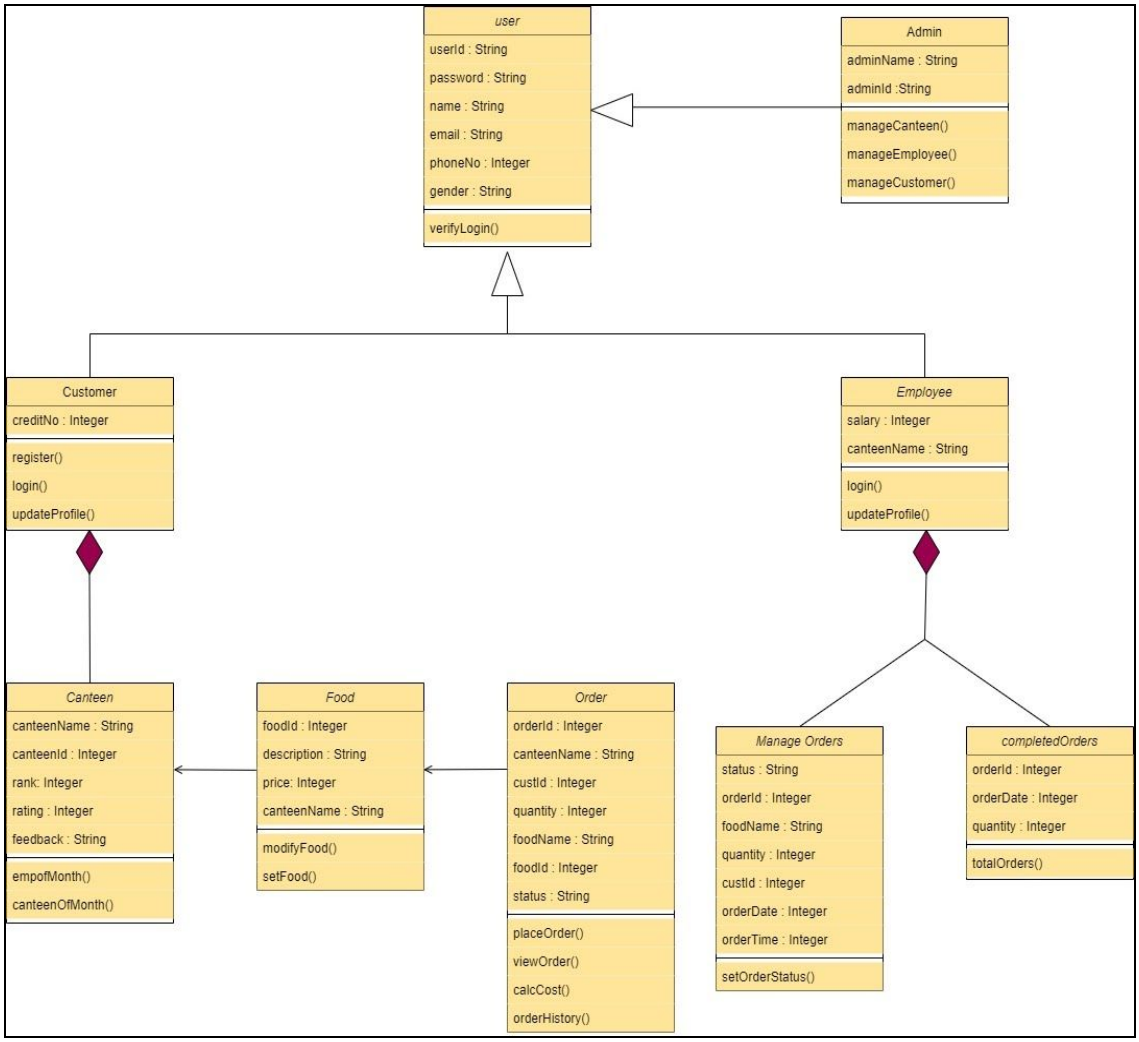
2) Sequence Diagram-



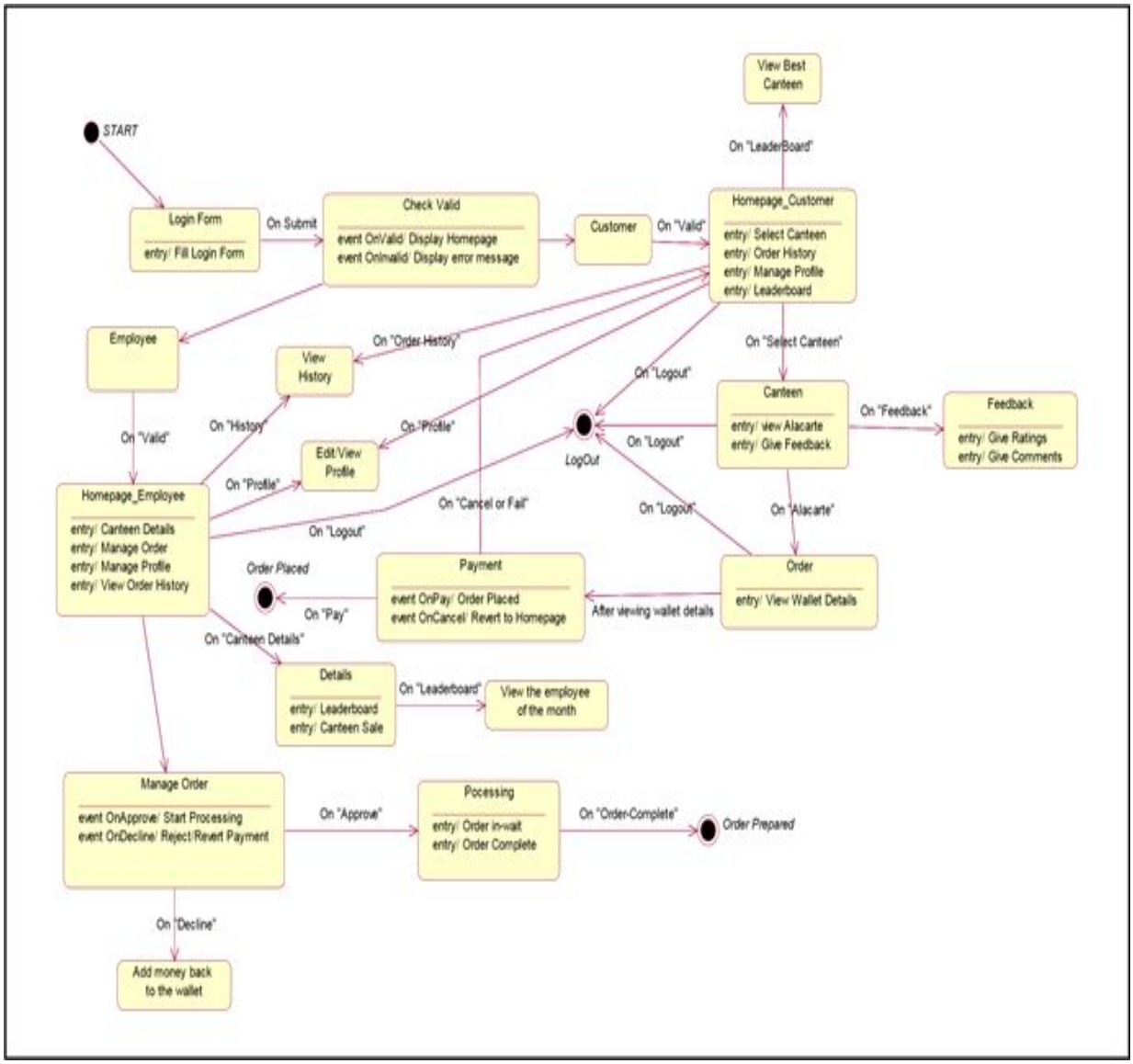

Select item()
query through item.id()
confirm order
send order data()
Display wallet page for pay()
enter wallet details()
process wallet()
ok
confirm order()
update cust order()
ok()
Display order confirmed()
View order status()
resquest status details()
check()
Send status as processing()
view status processing()
Send status completed()
View food delivered()
Send status reiected()


Updated
View completed orders()
Query order data by emp.id()
Send details()
Display completed orders()
View canteen details()
Query canteen data by emp.id()
Send details()
Display()
View profile()
Query profile data by emp.id()
Send profile data()
Display()
Edit details()
Send editted details()
Update

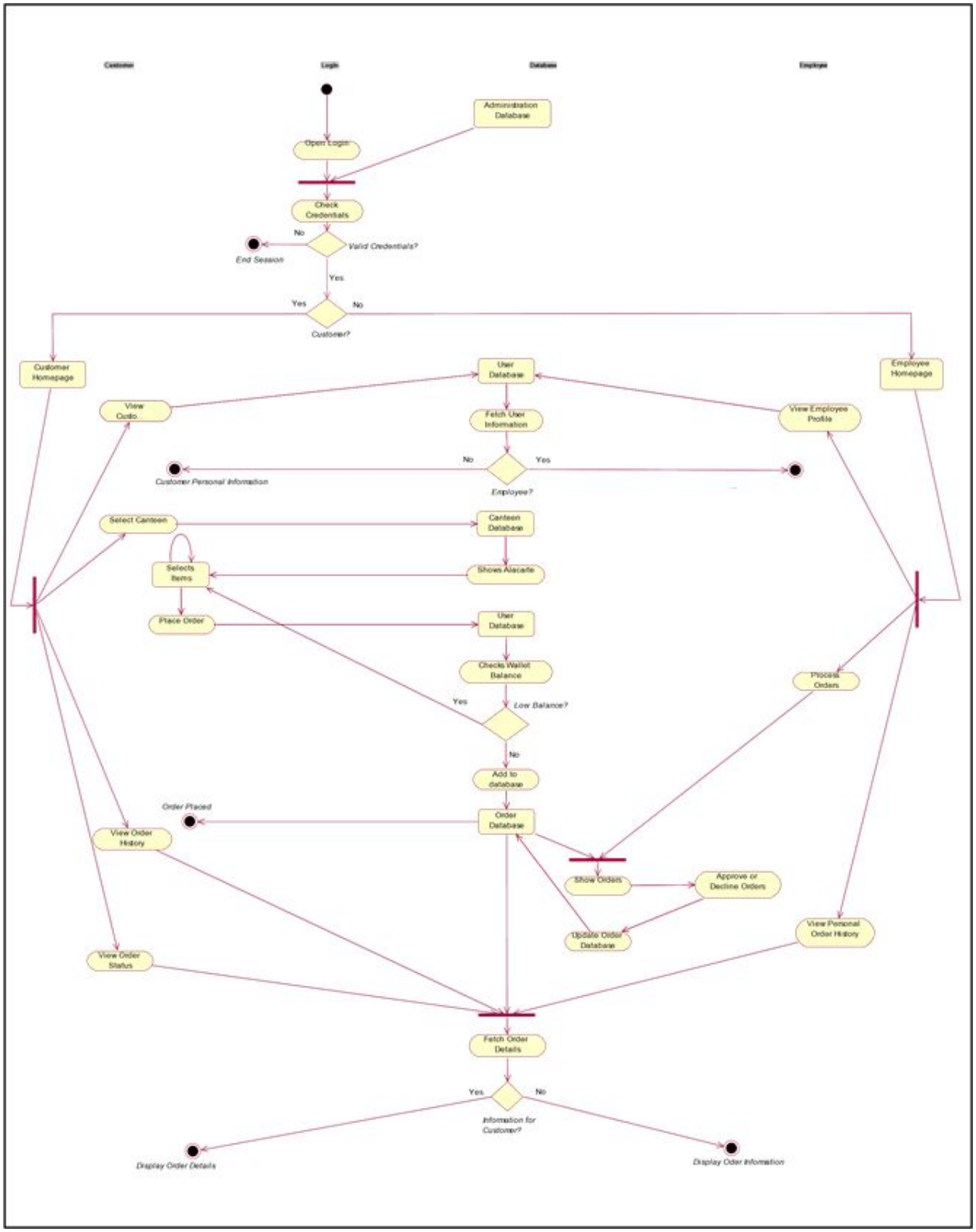
3) Class Diagram-



4) State Transition Diagram-

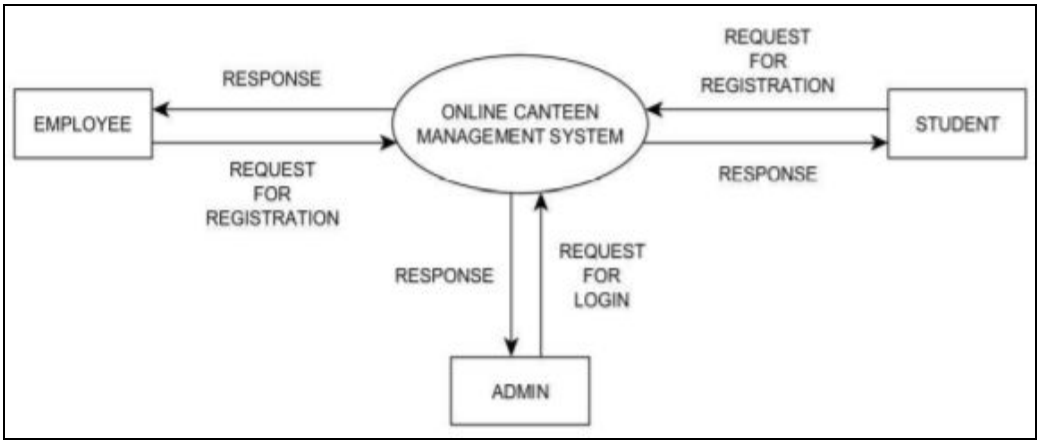


5) Activity Diagram-

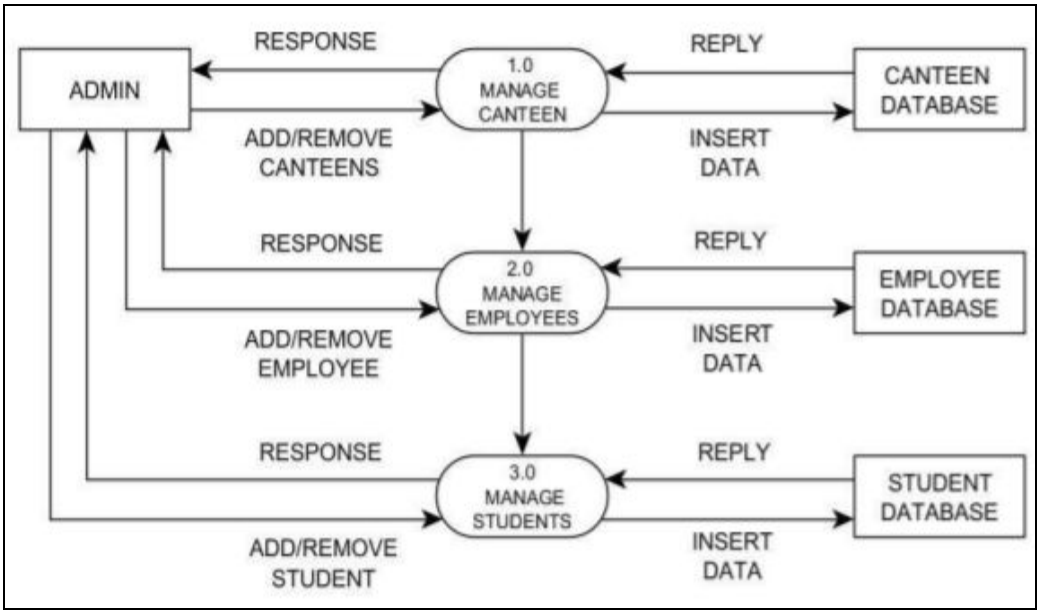


6) Data Flow Diagram-

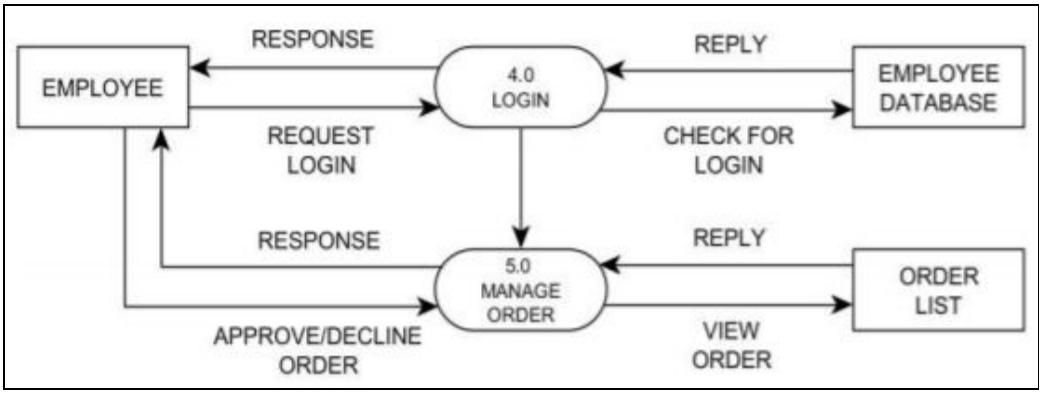
a) Level 0:



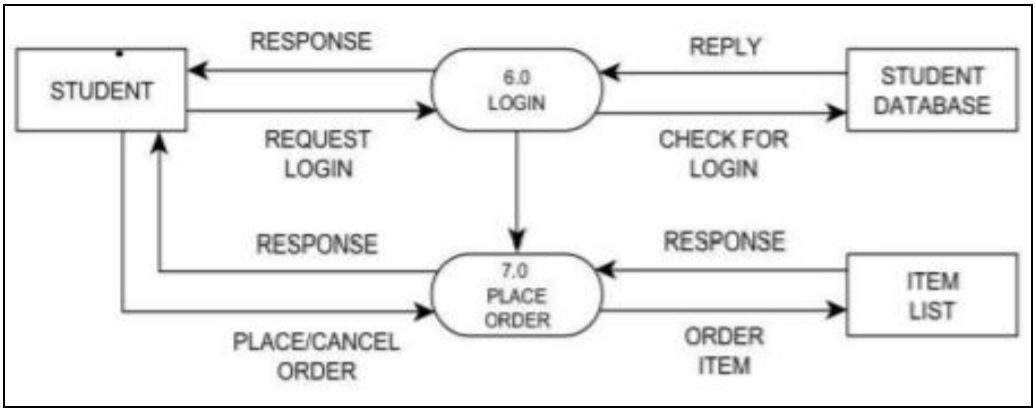
b) Level 1 (Admin):



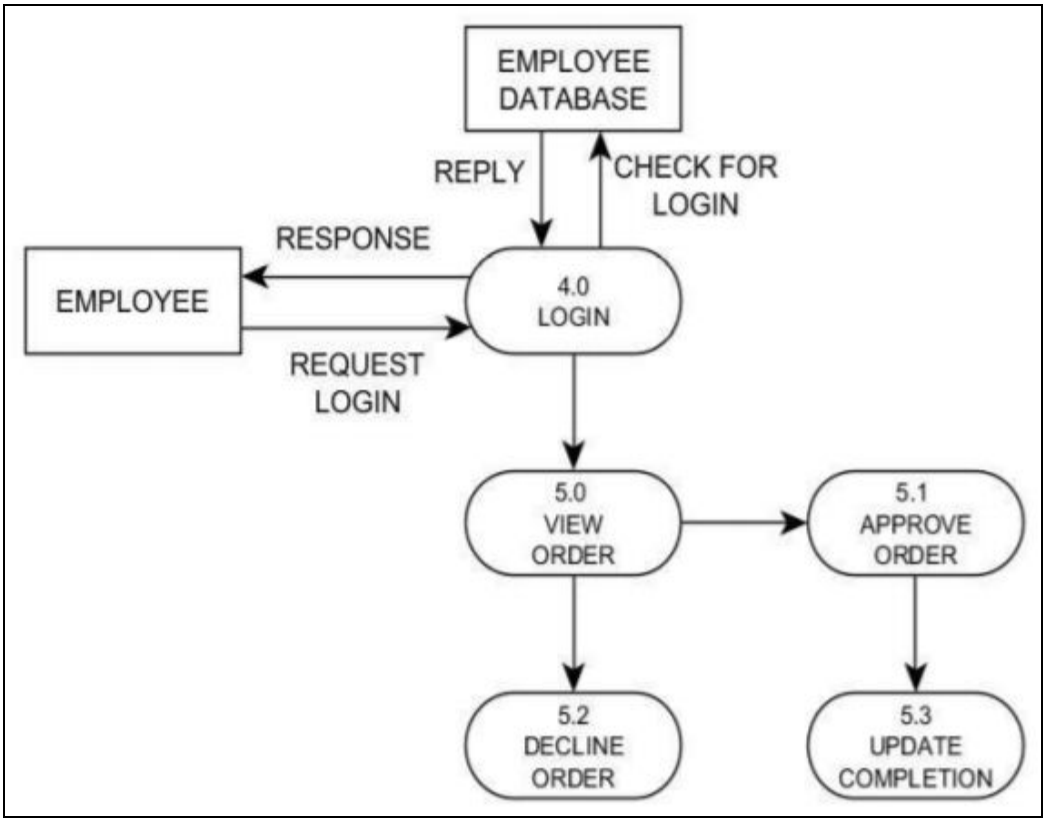
c) Level 1 (Chef):



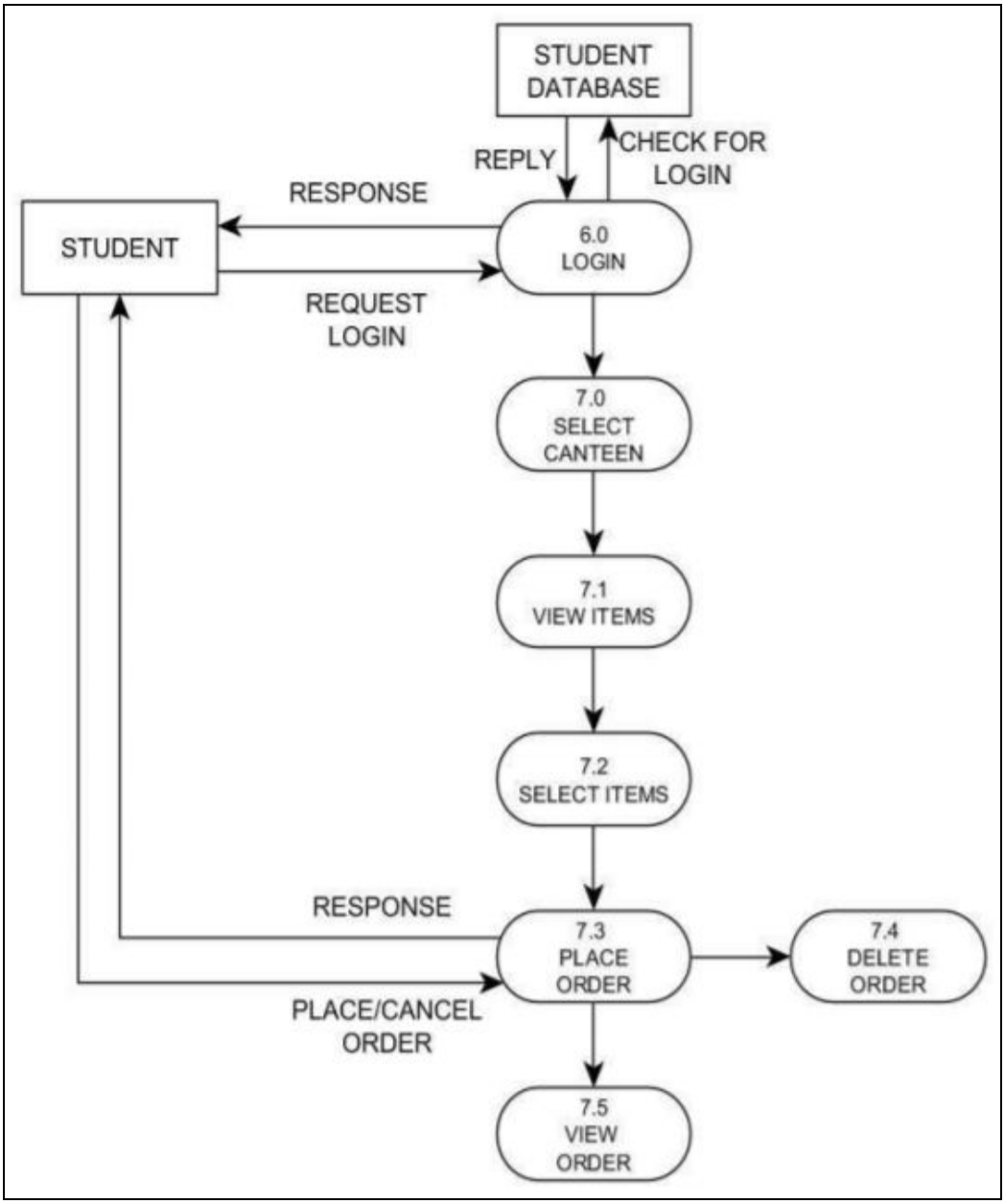
d) Level 1 (Customer- Student(s)/ Teacher(s)):



e) Level 2 (Chef):



f) Level 2 (Student):



5. Implementation and Testing

5.1. Implementation Details

(As it was difficult to segregate the code on the basis of the features as it is a web interface, we've tried to present the code in the form of basic logins and major interface codes that we've written which would encompass the functionality codes.)

HOMEPAGE.PHP

```
<!DOCTYPE html>
<?php
   include('sessioncust.php');
   $uname = $_SESSION['login_user'];
   $sql = "SELECT * from customer where custid='$uname'";
   $result = mysqli_query($db,$sql);
   $row = mysqli_fetch_array($result,MYSQLI_ASSOC);
?>
<html>
   <head>
      <link rel="stylesheet" type="text/css" href="css/style.css">
      <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
      <link rel="stylesheet" type="text/css" href="css/grid.css">
      <title>Student</title>
      <style>
      .warning{
         color: #D8000C;
         background-color: #FFBABA;

      }
   </style>
   </head>
   <body>
      <section class="section-plans">
         <div class="row">
            <div class="col span-10-of-12">
               <img src="images/person.png" style="border-radius: 20%; width: 5vw;">
               <div style="display: inline-block; vertical-align: super"><?php echo
$row['name']?><br><?php echo $row['custid']?></div>
            </div>
            <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="profile.php">Profile</a></div>
            <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="index.php">Logout</a></div>

         </div>
      </section>
      <section class="section-cant" id="cities">
         <div class="row">
         <br><br><br>
            <h2>Our Canteens</h2>
```

```
        </div>
        <div class="row">
          <div class="col span-1-of-5 cities-box">
            <img src="images/919.jpg"><br><br>
             <h3><a id="asjt" href="alasjt.php" class="cant" style="text-decoration: none; border: 2px
solid #18314f; border-radius: 4px; padding: 2px 4px;">SJT Canteen</a><br><br>Inside SJT</h3>
             <p id="psjt" style="margin: auto 10px;text-align: center;"></p>
          </div>
          <div class="col span-1-of-5 cities-box">
            <img src="images/943.jpg"><br><br>
             <h3><a id="adc" href="aladc.php" class="cant" style="text-decoration: none; border: 2px
solid #18314f; border-radius: 4px; padding: 2px 4px;">DC</a><br><br>Near TT</h3>
             <p id="pdc" style="margin: auto 10px;text-align: center;"></p>
          </div>
          <div class="col span-1-of-5 cities-box">
            <img src="images/2015.jpg"><br><br>
             <h3><a id="afcnac" href="alanac.php" class="cant" style="text-decoration: none; border:
2px solid #18314f; border-radius: 4px; padding: 2px 4px;">FC (Non AC)</a><br><br>Near TT</h3>
             <p id="pfcnac" style="margin: auto 10px;text-align: center;"></p>
          </div>
          <div class="col span-1-of-5 cities-box">
            <img src="images/2038.jpg"><br><br>
             <h3><a id="afcac" href="alaac.php" class="cant" style="text-decoration: none; border:
2px solid #18314f; border-radius: 4px; padding: 2px 4px;">FC (AC)</a><br><br>Near TT</h3>
             <p id="pfcac" style="margin: auto 10px;text-align: center;"></p>
          </div>
          <div class="col span-1-of-5 cities-box">
            <img src="images/2299.jpg"><br><br>
             <h3><a id="adar"href="aladar.php" class="cant" style="text-decoration: none; border:
2px solid #18314f; border-radius: 4px; padding: 2px 4px;">Darling</a><br><br>Gate 2</h3>
             <p id="pdar" style="margin: auto 10px;text-align: center;"></p>
           </div>
        </div>
        <div class="row">
        <br><br><br>
          <h2>Leaderboard</h2>
        </div>
        <div class="row">
          <div class="col span-1-of-5">
             
          </div>
          <div class="col span-1-of-5 cities-box">
            <?php
```

```
                $best = "select cid, max(tot) from (select cid, sum(cost) as tot from ord group by cid) as
T";
                $res = mysqli_query($db,$best);
                $ans = mysqli_fetch_array($res, MYSQLI_ASSOC);
                $name = "select name from canteen where cid=".$ans['cid']."";
                $res = mysqli_query($db,$name);
                $nm = mysqli_fetch_array($res, MYSQLI_ASSOC);
              ?>
             <img src="images/<?php echo $ans['cid'] ?>.jpg"><br><br>
              <h3><div class="cant" style="text-decoration: none; border: 2px solid #18314f;
border-radius: 4px; padding: 2px 4px;"><?php echo $nm['name']
?></div><br><strong>SALES</strong><br>Total Sale : <?php echo $ans['max(tot)'] ?></h3>
            </div>
            <div class="col span-1-of-5">
               
            </div>
            <div class="col span-1-of-5 cities-box">
              <?php
                $mrate = "select max(avrat) from (select cid, sum(rating)/count(cid) as avrat from
feedback group by cid) as t";
                $m = mysqli_query($db,$mrate);
                $a = mysqli_fetch_array($m, MYSQLI_ASSOC);
                $rate = "select cid, sum(rating)/count(cid) as avrat from feedback group by cid";
                $res = mysqli_query($db,$rate);
                while($ans = mysqli_fetch_array($res, MYSQLI_ASSOC)){
                  if($ans['avrat']==$a['max(avrat)']){
                    $cid = $ans['cid'];
                    $name = "select name from canteen where cid=".$ans['cid']."";
                    $r = mysqli_query($db,$name);
                    $nm = mysqli_fetch_array($r, MYSQLI_ASSOC);
                    break;
                  }
                }
              ?>
             <img src="images/<?php echo $cid ?>.jpg"><br><br>
              <h3><div class="cant" style="text-decoration: none; border: 2px solid #18314f;
border-radius: 4px; padding: 2px 4px;"><?php echo $nm['name']
?></div><br><strong>SALES</strong><br>Total Rating : <?php echo round($a['max(avrat)'],2)
?></h3>
            </div>
            <div class="col span-1-of-5">
               
             </div>
```

```
        </div>
      </section>
      <section class="section-plans">
        <div class="row">
          <h2>DASHBOARD</h2>
        </div>
        <div class="row">
          <a style="text-decoration: none; color:#18314f;" href="stordstat.php">
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;">
              VIEW TODAY'S ORDERS
            </div>
          </a>
          <div
class="col">           
    </div>
          <a style="text-decoration: none; color: white;" href="stordview.php">
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;background-color: #18314f;">
              ORDER HISTORY
            </div>
          </a>
        </div>
        <div class="row">
          <a style="text-decoration: none; color: white;" href="givefeed.php">
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;background-color: #18314f;">
              GIVE FEEDBACK
            </div>
          </a>
          <div
class="col">           
    </div>
          <a style="text-decoration: none; color:#18314f;" href="viewfeed.php">
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;">
              VIEW FEEDBACK
            </div>
          </a>

        </div>
      </section>
      <script>
```

```
var today = new Date();
// var time = today.getHours() + ":" + today.getMinutes() + ":" + today.getSeconds();
var asjt=document.getElementById("asjt");
var psjt=document.getElementById("psjt");

var adc=document.getElementById("adc");
var pdc=document.getElementById("pdc");

var afcnac=document.getElementById("afcnac");
var pfcnac=document.getElementById("pfcnac");

var afcac=document.getElementById("afcac");
var pfcac=document.getElementById("pfcac");

var adar=document.getElementById("adar");
var pdar=document.getElementById("pdar");

document.getElementById("asjt").addEventListener("click",function(){
   if(!(today.getHours()>=10 && today.getHours()<20) ){
      asjt.setAttribute("href","javascript:void(0)");
      psjt.innerHTML="CANTEEN CLOSED";
      psjt.classList.add("warning");
   }

});

document.getElementById("adc").addEventListener("click",function(){
   if(!(today.getHours()>=12 && today.getHours()<20) ){
      adc.setAttribute("href","javascript:void(0)");
      pdc.innerHTML="CANTEEN CLOSED";
      pdc.classList.add("warning");
   }

});

document.getElementById("afcnac").addEventListener("click",function(){
   if(!(today.getHours()>=10 && today.getHours()<20) ){
      afcnac.setAttribute("href","javascript:void(0)");
      pfcnac.innerHTML="CANTEEN CLOSED";
      pfcnac.classList.add("warning");
   }

});
```

```
        document.getElementById("afcac").addEventListener("click",function(){
            if(!(today.getHours()>=10 && today.getHours()<20 )){
                afcac.setAttribute("href","javascript:void(0)");
                pfcac.innerHTML="CANTEEN CLOSED";
                pfcac.classList.add("warning");
            }

        });

        document.getElementById("adar").addEventListener("click",function(){
            if(today.getHours()>3 ){
                adar.setAttribute("href","javascript:void(0)");
                pdar.innerHTML="CANTEEN CLOSED";
                pdar.classList.add("warning");
            }

        });

    </script>
  </body>
</html>
```

EMPLOYEE ORDER VIEW.PHP

```
<!DOCTYPE html>
<?php
  include('sessionemp.php');
  $uname = $_SESSION['login_user'];
  $sql = "SELECT * from employee where eid='$uname'";
  $result = mysqli_query($db,$sql);
  $row = mysqli_fetch_array($result,MYSQLI_ASSOC);
  $cid = $row['cid'];
  $s = "SELECT * from canteen where cid='$cid'";
  $res = mysqli_query($db,$s);
  $cant = mysqli_fetch_array($res,MYSQLI_ASSOC);
?>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="css/stordstatc.css">
    <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
    <link rel="stylesheet" type="text/css" href="css/grid.css">
```

```
    <title>Student</title>
  </head>
  <body>
    <section class="section-plans">
      <div class="row">
        <div class="col span-10-of-12">
          <img src="images/person.png" style="border-radius: 20%; width: 5vw;">
          <div style="display: inline-block; vertical-align: super"><?php echo $row['name']?><br>
            <?php
              $nm=$cant['name'];
              $loc=$cant['location'];
              echo "$nm, $loc";
            ?></div>
        </div>
        <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="empprof.php">Profile</a></div>
        <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="index.php">Logout</a></div>

      </div>
    </section>
    <section class="section-plans">
      <div class="row">
        <h2>Today's Orders : (<?php echo $nm; ?>)</h2>
      </div>
    </section>
    <section class="section-cant">
      <div class="row">
        <table>
          <tr>
            <td width=15 style="text-align: center;"><strong>Order Number</strong></td>
            <td width=15 style="text-align: center;"><strong>Order Date</strong></td>
            <td width=15 style="text-align: center;"><strong>Price</strong></td>
            <td width=15 style="text-align: center;"><strong>Status</strong></td>
          </tr>
          <?php
            $al = "select * from ord where cid='$cid'";
            $res = mysqli_query($db,$al);
            while($item = mysqli_fetch_array($res, MYSQLI_ASSOC)) {
              if(strcmp($item['status'],'Cancelled')==0){
```

```
                    echo "<tr><td style=\"text-align: center;\">".$item['oid']."<td style=\"text-align:
center;\">".$item['odate']."<td style=\"text-align: center;\">".$item['cost']."</td>";
                    echo "<td style=\"margin:10px; background: rgba(245, 70, 70, 0.8);color:black;
text-align: center;\"><a href='empordview.php?oid=".$item['oid']."' style=\"text-decoration:none;
color:black;\">Cancelled</a></td>";
                    echo "</tr>";
                  }
                  else if(strcmp($item['status'],'Completed')==0){
                    echo "<tr><td style=\"text-align: center;\">".$item['oid']."<td style=\"text-align:
center;\">".$item['odate']."<td style=\"text-align: center;\">".$item['cost']."</td>";
                    echo "<td style=\"margin:10px; background: rgba(58, 216, 51, 0.8);color:black;
text-align: center;\"><a href='empordview.php?oid=".$item['oid']."' style=\"text-decoration:none;
color:black;\">Completed</a></td>";
                    echo "</tr>";
                  }
                }
              ?>
            </table>
          </div>
        </section>
        <section class="section-plans">
          <div class="row">
            <a style="text-decoration: none; color:#18314f;" href="emphome.php">
              <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;">
                GO BACK
              </div>
            </a>
            <div
class="col">            
    </div>
            <a style="text-decoration: none; color: white;" href="emordstat.php">
              <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(12, 10, 72, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;background-color: #18314f;">
                TODAY'S ORDER
              </div>
            </a>
          </div>
        </section>
    </body>
</html>
```

CANTEEN ORDER.PHP

```
<!DOCTYPE html>
<?php

  include('sessioncust.php');
  require_once './vendor/autoload.php';

  use Twilio\Rest\Client;
  $uname = $_SESSION['login_user'];
  $sql = "SELECT * from customer where custid='$uname'";
  $result = mysqli_query($db,$sql);
  $row = mysqli_fetch_array($result,MYSQLI_ASSOC);

  if(!isset($_POST['submit']) && !isset($_POST['verify'])){
     $GLOBALS['random']=0;
     $_SESSION["random1"]=0;
     $GLOBALS['cost']=0;
  }

  $GLOBALS['output'] = 0;
  if(isset($_POST['verify'])){
     $GLOBALS['output'] =$_POST["otp"];
  }


?>
<html>
  <head>
     <link rel="stylesheet" type="text/css" href="css/style.css">
     <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
     <link rel="stylesheet" type="text/css" href="css/grid.css">
     <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
     <title>SJT Canteen</title>
  </head>
  <style>
     #successmsg{

        text-align: center;
        width: 400px;
        margin: 20px auto;
        padding: 10px 10px;
     }
```

```
      .success{
         color: #270;
         background-color: #DFF2BF;
      }
      .warning{
         color: #D8000C;
         background-color: #FFBABA;
      }
   </style>
   <body>
      <section class="section-plans">
         <div class="row">
            <div class="col span-10-of-12">
               <img src="images/person.png" style="border-radius: 20%; width: 5vw;">
               <div style="display: inline-block; vertical-align: super"><?php echo
$row['name']?><br><?php echo $row['custid']?></div>
            </div>
            <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="profile.php">Profile</a></div>
            <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="index.php">Logout</a></div>

         </div>
      </section>
      <section class="section-features">
      <?php
         if(isset($_POST['verify'])){
            echo "<p id='successmsg'></p>";
         }
      ?>

         <div class="row">
            <h2>Get food fast &mdash; not fast food.</h2>
         <br><br><br>
            <p class="long-feat">
               Hello, We're a part of VITFoodServices (VITFS), your new premium
food-ordering-from-canteen service. We know you're always busy. No time for standing in long queues.
So let us take care of that, we're really good at it, we promise!
            </p>
         </div>
         <br><br><br>
```

```
        <div class="row">
          <div class="col span-1-of-4 box">
            <h3>Up to 365 days/year</h3>
            <p>
              Never wait in queues again! We really mean that. Our subscription plans include up to 365 days/year coverage. You can also choose to order more flexibly if that's your style.
            </p>
          </div>
          <div class="col span-1-of-4 box">
            <h3>Ready in 30 minutes</h3>
            <p>
              You're only thirty minutes away from your delicious and super healthy meals. We work with the best chefs in each canteens to ensure that you're 100% happy.
            </p>
          </div>
          <div class="col span-1-of-4 box">
            <h3>100% organic</h3>
            <p>
              All our vegetables are fresh, organic and local. Animals are raised without added hormones or antibiotics. Good for your health, the environment, and it also tastes better!
            </p>
          </div>
          <div class="col span-1-of-4 box">
            <h3>Order anything</h3>
            <p>
              We don't limit your creativity, which means you can order whatever you feel like. You can choose from our menu containing over 100 delicious meals. It's up to you!
            </p>
          </div>
        </div>
      </section>
      <section class="section-cant">
        <div class="row">
          <h2>ALAcarte</h2>
        </div>
        <div class="row">
          <form method="post" id="sjt" name="sjt" action="<?php $_PHP_SELF ?>">
          <table style="font-family: 'Lato','Arial', sans-serif;">
            <tr>
              <td width=150><strong>Item</strong></td>
              <td width=15><strong>Price (in Rupees)</strong></td>
              <td width=15><strong>Quantity</strong></td>
            </tr>
```

```
            <?php
                ob_start();
                $ala = "SELECT * from sjtalacarte";
                $res = mysqli_query($db,$ala);
                while($item = mysqli_fetch_array($res, MYSQLI_ASSOC)){
                    echo "<tr><td>".$item['name']."</td><td>".$item['price']."</td><td
align=\"center\"><input type=\"numeric\" class=\"btnsmall\" id=\"".$item['iid']."\" name
=\"".$item['iid']."\"></td>";
                }
                if(isset($_POST['Submit'])){
                    $ala = "SELECT * from sjtalacarte";
                    $res = mysqli_query($db,$ala);
                    $_SESSION['x'] = 0;
                    while($item = mysqli_fetch_array($res, MYSQLI_ASSOC)){
                        $it = $item['iid'];
                        $pr = $item['price'];
                        if($_POST[$it]!=NULL){
                            $_SESSION['ord'][$_SESSION['x']]=$it;
                            $_SESSION['pri'][$_SESSION['x']]=$pr;
                            $_SESSION['qty'][$_SESSION['x']++]=$_POST[$it];
                        }
                    }

                    $cost=0;
                    for($y=0;$y<$_SESSION['x'];$y++){

                        $cost = $cost+$_SESSION['pri'][$y]* $_SESSION['qty'][$y];

                    }

                    $_SESSION['cost1'] =$cost;
                    $_SESSION['row1']=$row;

                    // SENDING OTP EMAIL
                    $GLOBALS['random']=rand(1000,9999);
                    $_SESSION["random1"]=$GLOBALS['random'];
                    require("./sendgrid-php/sendgrid-php.php");

                    //GET USER EMAIL ID
                    $customer = $row['custid'];
                    $sql = "SELECT email FROM sauth WHERE  custid= '$customer'";
                    $resultemail= mysqli_query($db,$sql);
                    $emailid;
```

```
                if (mysqli_num_rows($resultemail) > 0) {
                    while($rowData = mysqli_fetch_array($resultemail)){
                        $emailid= $rowData["email"];
                    }
                }


                //SENDING OTP
                $email = new \SendGrid\Mail\Mail();
                $email->setFrom("raghavjindal121000@gmail.com", "Example User");
                $email->setSubject("OTP Verification");
                $email->addTo(strval($emailid), "Example User");
                // $email->addContent("text/plain", "and easy to do anywhere, even with PHP");
                $OTP=$GLOBALS['random'];
                $email->addContent(
                    "text/html", "<strong> $OTP  is your One Time Password for Confirming your
Order</strong>"
                );
                //$sendgrid = new
\SendGrid('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');//
ATHARVA
                $sendgrid = new
\SendGrid('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'
);
                ////////////////////////
                //PHONE SMS- WORKING FOR VERIFIED NUMBERS   /////////
                //GET PHONE NUMBER
                // $customer = $row['custid'];
                // $sql = "SELECT phone FROM customer WHERE  custid= '$customer'";
                // $resultphone= mysqli_query($db,$sql);
                // $phone;
                // if (mysqli_num_rows($resultphone) > 0) {
                //     while($rowData = mysqli_fetch_array($resultphone)){
                //         $phone= $rowData["phone"];
                //     }
                // }

                // Find your Account Sid and Auth Token at twilio.com/console
                // DANGER! This is insecure. See http://twil.io/secure
                // $sid    = "ACb8d591fc5d518ecfe417cf2365659a69";
                // $token  = "058bc35e40032b1c1e689e748f4a3134";
                // $twilio = new Client($sid, $token);
```

```
                    // $message = $twilio->messages
                    //                 ->create("+91".strval($phone),
                    //                         [
                    //                             "body" => "$OTP  is your One Time Password for Confirming
your Order",
                    //                             "from" => "+12693593377"
                    //                         ]
                    //                 );



                    // print($message->sid);

                    ////////////////////////////

                    try {
                        $response = $sendgrid->send($email);
                        // print $response->statusCode() . "\n";
                        // print_r($response->headers());
                        // print $response->body() . "\n";
                    }
                    catch (Exception $e) {
                        // echo 'Caught exception: '. $e->getMessage() ."\n";
                    }



                    header("Location: http://localhost/canteen/verify.php");

                }
            ?>
        </table>
        <div class="section-plans">
        <div class="row">
        <a style="text-decoration: none; color:#18314f;" href="homepage.php">
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;font-family: 'Lato','Arial',
sans-serif;font-weight: 300;font-size: 20px;">
                GO BACK
            </div>
        </a>
```

```
            <div class="col">
             &nbs
p;  </div>
                <button class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(12, 10, 72, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;background-color: #18314f; color: white;
font-family: 'Lato','Arial', sans-serif;font-weight: 300;font-size: 20px;" type="submit" id="Submit"
name="Submit" for="sjt">
                    CONTINUE
                </button>
            </div>
            </div>
            </form>
            <p id="info"><?php

                        if(isset($_POST['verify'])){

                            if($GLOBALS['output']==$_SESSION['random1']){
                                $row=$_SESSION['row1'];
                                if($row['wallet']>=$_SESSION['cost1']){
                                    echo "<script>alert('Order Placed!');</script>";
                                    echo "<script>
                                        var msg=document.getElementById('successmsg');
                                        msg.innerHTML='Order Placed</br>';
                                        msg.classList.add('success');
                                       </script>";

                                    $date = date("Y-m-d");
                                    $cust = $row['custid'];
                                    $cost1=$_SESSION['cost1'];
                                    $add = "INSERT into ord(cid,custid,odate,cost,status) values
('919','$cust','$date','$cost1','Received')";
                                    $retval = mysqli_query($db,$add);
                                    $m = mysqli_query($db,"select max(oid) from ord");
                                    $max = mysqli_fetch_array($m,MYSQLI_ASSOC);
                                    $oid = $max['max(oid)'];
                                    for($y=0;$y<$_SESSION['x'];$y++){
                                        $ord= $_SESSION['ord'];
                                        $qty= $_SESSION['qty'];
                                        $add = "insert into orderdet values('$oid',' $ord[$y]',' $qty[$y]')";
                                        $retval = mysqli_query($db,$add);
                                    }
                                    $balance=$row['wallet']-$cost1;
                                    $add="update customer set wallet='$balance' where custid='$cust'";
```

```
                        $retval = mysqli_query($db,$add);

                    }
                    else{
                        echo "<script>alert('Not enough Balance in your wallet');</script>";
                    }
                }else{
                    echo "<script>alert('The entered OTP is invalid');</script>";
                    echo "<script>
                            var msg=document.getElementById('successmsg');
                            msg.innerHTML='Invalid OTP</br>';
                            msg.classList.add('warning');
                           </script>";
                }
            }

            ?></p>
        </div>
    </section>
  </body>
</html>
```

ORDERING PROCESS

```
<!DOCTYPE html>
<?php
  include('sessionemp.php');
  $uname = $_SESSION['login_user'];
  $sql = "SELECT * from employee where eid='$uname'";
  $result = mysqli_query($db,$sql);
  $row = mysqli_fetch_array($result,MYSQLI_ASSOC);
  $oid = $_GET['oid'];
?>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="css/stordstatc.css">
    <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
    <link rel="stylesheet" type="text/css" href="css/grid.css">
    <title>Student</title>
  </head>
  <body>
```

```
    <section class="section-cant">
      <div class="row">
        <div class="col span-10-of-12">
          <img src="images/person.png" style="border-radius: 20%; width: 5vw;">
          <div style="display: inline-block; vertical-align: super"><?php echo
$row['name']?><br><?php /*echo $row['custid']*/?></div>
        </div>
        <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="profile.php">Profile</a></div>
        <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="index.php">Logout</a></div>

      </div>
    </section>
    <section class="section-plans">
      <div class="row">
        <h2>Order Number: <?php
            echo $oid;
          ?></h2>
      </div>
      <div class="row">
        <table>
          <tr>
            <td width=15 style="text-align: center;"><strong>Item Name</strong></td>
            <td width=15 style="text-align: center;"><strong>Quantity Date</strong></td>
            <td width=15 style="text-align: center;"><strong>Price</strong></td>
          </tr>
          <?php
            $eid = $row['eid'];
            $c = "select * from ord where oid='$oid'";
            $res = mysqli_query($db,$c);
            $det = mysqli_fetch_array($res,MYSQLI_ASSOC);
            $q = "SELECT * from orderdet where oid='$oid'";
            $r = mysqli_query($db,$q);
            while($item = mysqli_fetch_array($r,MYSQLI_ASSOC)){
              $iid = $item['iid'];
              if($det['cid']==919){
                $s = "select * from sjtalacarte where iid='$iid'";
                $quer = mysqli_query($db,$s);
                $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
```

```
                    echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                }
                else if($det['cid']==943){
                    $s = "select * from dcalacarte where iid='$iid'";
                    $quer = mysqli_query($db,$s);
                    $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                    echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                }
                else if($det['cid']==2015){
                    $s = "select * from nacalacarte where iid='$iid'";
                    $quer = mysqli_query($db,$s);
                    $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                    echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                }
                else if($det['cid']==2038){
                    $s = "select * from acalacarte where iid='$iid'";
                    $quer = mysqli_query($db,$s);
                    $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                    echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                }
                else{
                    $s = "select * from dalacarte where iid='$iid'";
                    $quer = mysqli_query($db,$s);
                    $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                    echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                }
            }
            if(isset($_POST['Submit'])){
                if($_POST['rating']==0){
                    $l = "update ord set status='Completed', eid='$eid' where oid='$oid'";
                    $ret = mysqli_query($db,$l);
                    header('Location: emphome.php');
                }
```

```
                }
              ?>
            </table>
            <div style="text-align:center; margin-top: 2vw;">Total Price : <?php echo $det['cost'];
?></div>
            <div style="border: 2px black; margin: 2vw; margin-bottom: -4vw; background-color:rgba(0,
0, 0, 0.59); padding:2vw; color:white;">
              <form method="post" id="sjt" name="sjt" action="<?php $_PHP_SELF ?>">
                <label for="rating" style="font-family: 'Lato','Arial', sans-serif;font-weight:
300;font-size: 20px; margin-left:23vw;">Status</label>
                <input type="radio" name="rating" value=0 style="margin:2vw 0.5vw 2vw
4vw;">Finished
                <input type="submit" for="sjt" value="Submit" id="Submit" name="Submit"
style="box-shadow: 4px 4px 10px rgba(12, 10, 72, 0.15); text-align: center; padding: 1%;border: 2px
solid #18314f;background-color: #18314f; color: white; font-family: 'Lato','Arial',
sans-serif;font-weight: 300;font-size: 20px;margin-left:31vw;"><br>
              </form>
            </div>
          </div>
        </section>
        <section class="section-plans">
          <div class="row">
            <a style="text-decoration: none; color:#18314f;" href="emphome.php">
              <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;margin-left:21vw;">
                GO BACK
              </div>
            </a>
          </div>
        </section>
    </body>
</html>
```

GIVE FEEDBACK

```
<!DOCTYPE html>
<?php
   include('sessioncust.php');
   $uname = $_SESSION['login_user'];
   $sql = "SELECT * from customer where custid='$uname'";
   $result = mysqli_query($db,$sql);
   $row = mysqli_fetch_array($result,MYSQLI_ASSOC);
```

```
?>
<html>
  <head>
    <link rel="stylesheet" type="text/css" href="css/style.css">
    <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
    <link rel="stylesheet" type="text/css" href="css/grid.css">
    <script src="https://ajax.googleapis.com/ajax/libs/jquery/3.3.1/jquery.min.js"></script>
    <title>SJT Canteen</title>
  </head>
  <body>
    <section class="section-plans">
      <div class="row">
        <div class="col span-10-of-12">
          <img src="images/person.png" style="border-radius: 20%; width: 5vw;">
          <div style="display: inline-block; vertical-align: super"><?php echo
$row['name']?><br><?php echo $row['custid']?></div>
        </div>
        <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="profile.php">Profile</a></div>
        <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="index.php">Logout</a></div>

      </div>
    </section>
    <section class="section-cant">
      <div class="row">
        <h2>GIVE FEEDBACK</h2>
      </div>
      <div class="row">
        <form method="post" id="sjt" name="sjt" action="<?php $_PHP_SELF ?>">
          <?php
            $custid = $row['custid'];
            if(isset($_POST['Submit'])){
              $cid = $_POST['canteen'];
              $rat = $_POST['rating'];
              $fd = $_POST['comment'];
              if(1>0){
              $add = "INSERT into feedback(cid,custid,content,rating) values
('$cid','$custid','$fd','$rat')";
              $retval = mysqli_query($db,$add);
//              if(! $retval )
```

```
//                    {
//                        die('Could not enter data: ' . mysqli_error($db));
//                    }
//                    echo  nl2br("\nCould Not place Order\n");
                    }
                }
            ?>
            <label for="canteen" style="font-family: 'Lato','Arial', sans-serif;font-weight: 300;font-size: 20px; margin-left:4vw;">CHOOSE CANTEEN</label>
            <select name="canteen" id="canteen" style="margin:2vw 4vw; width:60vw;">
                <option value="919">SJT Canteen</option>
                <option value="943">DC</option>
                <option value="2015">FC (Non AC)</option>
                <option value="2038">FC (AC)</option>
                <option value="2299">Darling</option>
            </select>
            <br>
            <label for="comment" style="font-family: 'Lato','Arial', sans-serif;font-weight: 300;font-size: 20px; margin-left:4vw;">Your Feedback</label>
            <input type="text" placeholder="Enter your feedback here" id="comment" name="comment" style="margin:2vw 4vw; width:60vw;" required>
            <br>
            <label for="rating" style="font-family: 'Lato','Arial', sans-serif;font-weight: 300;font-size: 20px; margin-left:4vw;">Your Rating<br></label>
            <input type="radio" name="rating" value=0 style="margin:2vw 0.5vw 2vw 4vw;">0
            <input type="radio" name="rating" value=1 style="margin:2vw 0.5vw 2vw 0.5vw;">1
            <input type="radio" name="rating" value=2 style="margin:2vw 0.5vw 2vw 0.5vw;">2
            <input type="radio" name="rating" value=3 style="margin:2vw 0.5vw 2vw 0.5vw;">3
            <input type="radio" name="rating" value=4 style="margin:2vw 0.5vw 2vw 0.5vw;">4
            <input type="radio" name="rating" value=5 style="margin:2vw 0.5vw 2vw 0.5vw;">5
            <input type="radio" name="rating" value=6 style="margin:2vw 0.5vw 2vw 0.5vw;">6
            <input type="radio" name="rating" value=6 style="margin:2vw 0.5vw 2vw 0.5vw;">7
            <input type="radio" name="rating" value=8 style="margin:2vw 0.5vw 2vw 0.5vw;">8
            <input type="radio" name="rating" value=9 style="margin:2vw 0.5vw 2vw 0.5vw;">9
            <input type="radio" name="rating" value=10 style="margin:2vw 0.5vw 2vw 0.5vw;" checked>10<br>
            <input type="submit" for="sjt" value="Submit" id="Submit" name="Submit" style="box-shadow: 4px 4px 10px rgba(12, 10, 72, 0.15); text-align: center; padding: 1%;border: 2px solid #18314f;background-color: #18314f; color: white; font-family: 'Lato','Arial', sans-serif;font-weight: 300;font-size: 20px;margin-left:35vw; margin-botton:4vw;"><br>
        </form>
    </div>
</section>
```

```
      <section class="section-plans">
        <div class="row">
          <a style="text-decoration: none; color:#18314f;" href="homepage.php">
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;">
                GO BACK
            </div>
          </a>
          <div
class="col">           
    </div>
          <a style="text-decoration: none; color: white;" href="viewfeed.php">
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(12, 10, 72, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;background-color: #18314f;">
                VIEW FEEDBACK
            </div>
          </a>
        </div>
      </section>
  </body>
</html>
```

ORDERS

```
<!DOCTYPE html>
<?php
   include('sessionemp.php');
   $uname = $_SESSION['login_user'];
   $sql = "SELECT * from employee where eid='$uname'";
   $result = mysqli_query($db,$sql);
   $row = mysqli_fetch_array($result,MYSQLI_ASSOC);
?>
<html>
   <head>
      <link rel="stylesheet" type="text/css" href="css/stordstatc.css">
      <link href="https://fonts.googleapis.com/css?family=Montserrat" rel="stylesheet">
      <link rel="stylesheet" type="text/css" href="css/grid.css">
      <title>Student</title>
   </head>
   <body>
      <section class="section-cant">
```

```
        <div class="row">
          <div class="col span-10-of-12">
            <img src="images/person.png" style="border-radius: 20%; width: 5vw;">
            <div style="display: inline-block; vertical-align: super"><?php echo $row['name']?></div>
          </div>
          <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="profile.php">Profile</a></div>
          <div class="col span-1-of-12"><a style="text-decoration: none; background-color: #18314f;
padding: 10% 20%; color: white; vertical-align: text-bottom; margin-top: 20%; margin-bottom: 20%;
box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15)" href="index.php">Logout</a></div>

        </div>
      </section>
      <section class="section-plans">
        <div class="row">
          <h2>Order Number: <?php
              echo $oid;
            ?></h2>
        </div>
        <div class="row">
          <table>
            <tr>
              <td width=15 style="text-align: center;"><strong>Item Name</strong></td>
              <td width=15 style="text-align: center;"><strong>Quantity Date</strong></td>
              <td width=15 style="text-align: center;"><strong>Price</strong></td>
            </tr>
            <?php
              $c = "select * from ord where oid='$oid'";
              $res = mysqli_query($db,$c);
              $det = mysqli_fetch_array($res,MYSQLI_ASSOC);
              $q = "SELECT * from orderdet where oid='$oid'";
              $r = mysqli_query($db,$q);
              while($item = mysqli_fetch_array($r,MYSQLI_ASSOC)){
                $iid = $item['iid'];
                if($det['cid']==919){
                  $s = "select * from sjtalacarte where iid='$iid'";
                  $quer = mysqli_query($db,$s);
                  $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                  echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                }
```

```
                    else if($det['cid']==943){
                        $s = "select * from dcalacarte where iid='$iid'";
                        $quer = mysqli_query($db,$s);
                        $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                        echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                    }
                    else if($det['cid']==2015){
                        $s = "select * from nacalacarte where iid='$iid'";
                        $quer = mysqli_query($db,$s);
                        $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                        echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                    }
                    else if($det['cid']==2038){
                        $s = "select * from acalacarte where iid='$iid'";
                        $quer = mysqli_query($db,$s);
                        $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                        echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                    }
                    else{
                        $s = "select * from dalacarte where iid='$iid'";
                        $quer = mysqli_query($db,$s);
                        $ala = mysqli_fetch_array($quer,MYSQLI_ASSOC);
                        echo "<tr><td style=\"text-align: center;\">".$ala['name']."</td><td
style=\"text-align: center;\">".$item['qty']."</td><td style=\"text-align:
center;\">".$item['qty']*$ala['price']."</td></tr>";
                    }
                }
            ?>
        </table>
        <div style="text-align:center; margin-top: 2vw;">Total Price : <?php echo $det['cost'];
?></div>
      </div>
    </section>
    <section class="section-plans">
      <div class="row">
        <a style="text-decoration: none; color:#18314f;" href="emphome.php">
```

```
            <div class="col span-5-of-11" style="box-shadow: 4px 4px 10px rgba(72, 39, 10, 0.15);
text-align: center; padding: 1%;border: 2px solid #18314f;margin-left:21vw;">
                GO BACK
            </div>
          </a>
        </div>
      </section>
  </body>
</html>
```

Input

```
[ ] food_item = input('Enter the title of the food : ')
```

```
Enter the title of the food : Jolly Time Popcorn
```

```
[ ] def search_index(title):
        return df[df['title'] == title].index
```

```
[ ] index_item=search_index(food_item)
```

```
[ ] index_item
```

```
Int64Index([2], dtype='int64')
```

```
[ ] #making a list of similar items to the item entered by the user
    similar_items = list(enumerate(cos_similar[int(index_item[0])]))
```

```
[ ] similar_items[:10]      #to display first 10 elements of the list
```

```
[(0, 0.0),
 (1, 0.18698939800169145),
 (2, 1.0000000000000002),
 (3, 0.07259540086406277),
 (4, 0.0),
 (5, 0.0),
```

```
(5, 0.0),
(6, 0.1037998592215364),
(7, 0.06286946134619315),
(8, 0.0345857231933037 3),
(9, 0.07564093584889488)]
```

```
#sorting in descending order
sorted_similar_items=sorted(similar_items,key=lambda x:x[1],reverse=True)
```

```
sorted_similar_items[:10]     #to display first 10 elements of the sorted list
```

```
[(2, 1.0000000000000002),
 (4714, 0.4716010621882686),
 (5158, 0.4652421051992355),
 (4751, 0.45226701686664544),
 (9107, 0.4487745552040595),
 (4911, 0.44020438924006666),
 (6032, 0.4297722474802028),
 (1965, 0.428593742445839),
 (5456, 0.41989110486518244),
 (4299, 0.4187178946793119)]
```

Output

```
def search_title(index):
    return df['title'][index]
```

```
i=0
for item in sorted_similar_items:
    print(search_title(item[0]))
    i=i+1
```

```
    if(i>50):     #printing top 50 similar food items
        break
```

```
Jolly Time Popcorn
Lay's Stax, Pizza, 5.5 Oz
Jolly Time All-in-One Popcorn Kernel
Jolly Time Pop Corn, Yellow Kernels, 2lb
Hunt's Bbq Sauce Honey Mustard 510g
Ice Breakers Ice Cubes Spearmint Sugar-free Gum - 40pc
Cafe Mocha M&M Holiday Gift Tin
Nips Sugar Free Caramel Candy
Jolly Rancher Hard Candy Original Flavors - 3.75lb
Royal Orange Gelatin, 1.4 oz
Dunkin' Donuts174 Hazelnut Light Roast Ground Coffee - 12oz
Black Truffle Pop Corn Kits
Ghirardelli Chocolate Intense Dark Twilight Delight 72 Cacao
Cornnuts Ranch Bag
Gold Emblem Trail Mix Energy Blend
FastachiÏ¿½Ï¿½ Duo Gift Tray of Nuts - FastachiÏ¿½Ï¿½ Harvest Nut Mix / Salted Pistachios
Buffalo Bills 8oz Original Country Cut Beef Jerky Pack (moist & tender mildly flavored beef jerky)
Gatorade G Series Lemon-lime (76.5 Oz/makes 9 Gallons)
Gatorade G Series Perform Lemon-Lime Sports Drink Powder, 50.9 oz
Pixy Sticks Bulk (2 lb Bag)
Gold Emblem Lemon Fiber Bars, 6CT
Jell-O Instant Pudding _ Pie Filling Sugar Free Fat Free Banana Cream, 0.9 Oz
Oreo Birthday Cake Chocolate Sandwich Cookies - 15.25oz
VALENTINE'S DAY COOKIE TALK COOKIE PLATTERS WITH MESSAGES (ROMANTIC THEME)
Martin's Air Popped Butter Flavored Popcorn, 4.5 OZ
Noritamago Furikake Rice Seasoning
Royal Pudding _ Pie Filling, Cook _ Serve, Vanilla 2.75 oz.
Weight Watchers English Toffee Squares, 3.25 OZ
Jolly RancherÂ® Chews Original Flavors Candy 2.06 oz. Box
CVS Gold Emblem Absolutely Divine Luxury Wafers with Chocolate Hazelnut Creme Filling
Organic Valley Sharp Cheddar Cheese, 8oz
Folgers Toasted Hazelnut Flavored Ground Coffee
MTR Palak Paneer
```

```
import numpy as np
import pandas as pd
import seaborn as sns
import matplotlib.pyplot as plt

df=pd.read_csv('food_items.txt')

df.drop('index',axis=1,inplace=True)

df.drop(df.iloc[:,5:],axis=1,inplace=True)

df.head()

"""or you could simply have done:

df = df [ ['brand','categories','ingredients','manufacturer','title'] ]

this will automatically drop other columns
---
```

```
#data cleaning
#removing duplicates from df
df.drop_duplicates(inplace=True)

#filling null places with ''
df=df.fillna(value='')

"""We want to predict 'title' of food item. So from the dataframe, we can see that it depends basically on two features: 'brand' and 'i

df['prepared_data'] = df['brand'] + " " + df['ingredients']

"""**Vectorization****"""

from sklearn.feature_extraction.text import CountVectorizer
#converts a collection of text documents to a matrix of token counts

#bow - bag-of-words model
bow_transformer = CountVectorizer()
vector_matrix = bow_transformer.fit_transform(df['prepared_data'])


"""**Cosine Similarity****"""

from sklearn.metrics.pairwise import cosine_similarity

cos_similar = cosine_similarity(vector_matrix)

"""**Input****"""

food_item = input('Enter the title of the food : ')

def search_index(title):
    return df[df['title'] == title].index

index_item=search_index(food_item)


#making a list of similar items to the item entered by the user
similar_items = list(enumerate(cos_similar[int(index_item[0])]))


#sorting in descending order
sorted_similar_items=sorted(similar_items,key=lambda x:x[1],reverse=True)

sorted_similar_items[:10]     #to display first 10 elements of the sorted list

"""**Output****"""

def search_title(index):
    return df['title'][index]

i=0
for item in sorted_similar_items:
    print(search_title(item[0]))
    i=i+1
    if(i>50):     #printing top 50 similar food items
        break
```

5.2. Testing

5.2.1. Types of Testing

1. Unit Testing: Unit testing guarantees that each aspect of the code created in a part conveys the ideal yield. Gives documentation of code improvement as every unit of the code is completely tried independent prior to advancing to another unit.
2. Component Testing: Testing a module or component autonomously to confirm its normal yield is called component testing. Component testing is done to confirm the usefulness as well as ease of use of a component yet not limited to just these. A component can be of anything which can take input(s) and conveys some yield.
3. Integration Testing: Integration testing is performed to test singular parts to check how they work together. Integration tests cause information and operational orders to stream between modules which implies that they need to go about as parts of an entire framework as opposed to singular segments. This regularly reveals issues with UI activities, information designs, activity timing, API calls, and data set admittance and UI activity.
4. System Testing: System testing is testing conducted on a complete, integrated system to evaluate its compliance with the specified requirements. After the completion of integration testing, the software is passed for system testing. This was done by various independent testers who haven't played a role in the development process.
5. User Acceptance Testing: User Acceptance Testing (UAT) is the last period of the software testing measure. The software is tried to ensure it can deal with required tasks in genuine situations.

5.2.2. Test Cases

TEST CASE ID	TEST CASE OBJECTIVE	PRE REQUISITE	STEPS	INPUT DATA	EXPECTED OUTPUT	ACTUAL OUTPUT	STATUS
TC_01	Test login Index page	The index page should be available	Click on the inputs	Username, Password	Successful login	Successful login	PASS

TC_02	To check credits in account	Profile tab on the upper right corner	Click on the tab	Click on the tab	Display of the credits	Display of the credits	PASS
TC_03	Order place by customer	Various tabs of canteen	Click on any tab	Input the qty. of food	Status showing received	Status showing received	PASS
TC_04	To check if credits are withdrawn	Profile tab on upper right corner	Click on the tab	Click on the tab	Decrease in credits	Decrease in credits	PASS
TC_05	To give feedback	Feedback should be available	Click on the tab	Enter the feedbac k	Feedback received	Feedback received	PASS
TC_06	To view feedback	View feedback available	Click on the tab	Click on the tab	Feedbacks from customers	Feedback from customer s	PASS
TC_07	Employee orders	Login from employee account	Click on view orders	Click on view orders	Orders from customers	Orders from customer s	PASS
TC_08	Order completed	Order status visible to employee	Click on the order	Click complet ed option	Status changes to completed	Status changes to complete d	PASS

TC_09	No. of orders handled by employee	Profile tab of employee	Click on the tab	Click on the tab	Orders placed by him	Orders placed by him	PASS
TC_10	Best employee	Employee tab	Click on the tab	Click on the tab	Based on the orders, best one is chosen	Based on the orders best one is chosen	PASS

6. Conclusion, Limitations and Scope for Future Work

6.1. Conclusion

Standing in a queue when one is truly hungry is the most tedious job. A customer expects to get their meal on time to fulfil their hunger and to manage their time. A university where the population is immense and time very less, the thought of standing in a queue discourages students and teachers alike to have a proper meal in any of the canteens in the college. This website is a solution to it, as it curbs out the process of long queues and delivers the customers their food as soon as they reach their destination.

The feature of leaderboard in the employee's login encourages them to know who is at the top of the list and gives them a motivation to give their best to earn that position. The leader board, combined with the feedback, in the user's login gives them an honest opinion about which canteen is the best, it gives them a knowledge about the mass opinion of which canteen is the most appealing.

6.2. Limitations

1. The website/ software does not offer much flexibility in terms of timings. If a certain customer misses the timing to book an order in the given window he/ she has to wait for the next window to open.
2. The software being a bit more inclined towards the chef being more powerful can be a cause of problems as they may cancel the order even if he has ideal conditions to prepare the order.
3. The canteen menu needs to be updated regularly considering the nature of our canteen menus and hence the overall system needs to be updated without fail.

6.3. Scope for Future Work

1. We can make the website more interactive by adding features like showing the user the calories associated with the food items.
2. Also we can integrate google map services, which will help the freshers and basically the new customers get more information regd the various canteens across the university along with their respective directions.
3. Further we can add pop up notifications for notifying the user of the meal timings so that they do not tend to miss.
4. The website can be integrated with an offline application which will keep account of the user's details like calories, steps etc. and the food suggestions can be made on the basis of that.

7. References

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