

# **LAB REPORT**

*Submitted by* **MANISHA.E**

**[RA2011003011403]** *Under the Guidance of*

**Mr. N.A.S Vinoth**

**Assistant Professor, CTECH**

*In partial satisfaction of the requirements for the degree of*

## **BACHELOR OF TECHNOLOGY in COMPUTER SCIENCE ENGINEERING**



**SCHOOL OF COMPUTING**  
**COLLEGE OF ENGINEERING AND TECHNOLOGY SRM**  
**INSTITUTE OF SCIENCE AND TECHNOLOGY**  
**KATTANKULATHUR - 603203**  
**JUNE 2022**

## **BONAFIDE CERTIFICATE**

Certified that this lab report titled “**CANTEEN MANAGEMENT SYSTEM**” is the bonafide work done by **DHANUSHYA C (RA2011003011403)** who carried out the lab exercises under my supervision. Certified further, that to the best of my knowledge the work reported herein does not form part of any other work.

**SIGNATURE** Mr.  
N.A.S Vinoth **SEPM**  
– **Course Faculty**  
Assistant Professor  
Department  
of CTECH

## Abstract:

The ultimate aim of the canteen management system is to automate the existing traditional system which is manual, with the support of computerized equipment and full-featured computer applications, so that their valuable data can be retained for a prolonged period of time with quick access and management. The appropriate software and hardware are readily accessible and easy to use. There is a huge line in the institution canteen throughout the day. From the wait at the payment desk to the serving point, a ton of time is spent waiting for the food, because of which, students and the faculty get late for their lectures. All teachers and students do want to figure out a way to that or get rid of this waiting period. One way to resolve the issue would be to have a software arrangement in which, once the order has been put, it can be projected directly on the canteen monitor. This will prevent out the time people spend at the payment desk as the server needs time to fulfil the previous orders before taking a fresh receipt and setting it up in the canteen. Even, we could have the program to post orders in such a manner that his / her order is processed ready for the particular period that he / she prefers. The time wasted on waiting for change can also be diminished by enabling online payment. The project's main objective on Cashless Canteen Management System is to manage canteen, product, and sales information. It manages all the details of canteen, product, orders and users. The project is completely built at the administrative end and thus only admin is guaranteed the access.

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## **LIST OF ABBREVIATION**

ERD	Entity relationship Diagram
IT	Information Technology
IDE	Integrated Development Environment
APP	Application
URL	Uniform Resource locator
Arch	Architecture
DFD	Data Flow Diagram
UI	User Interface
API	Application Programming Interface
WBS	Work Breakdown Structure
DB	Database



**DEPT. Of NWC**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	1
<b>Title of Experiment</b>	To identify the Software Project, Create Business Case, Arrive at a Problem Statement
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

**Mark Split Up**

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## **Aim:**

To Frame a project team, analyze and identify a Software project. To create a business case and Arrive at a Problem Statement for the **CANTEEN MANAGEMENT SYSTEM**.

## **Project Title:**

**“CANTEEN MANAGEMENT SYSTEM”**

## **Project Description:**

- **Problem statement:**

Nowadays people do not have much time to spend in canteen by just waiting for the waiter to take their order. Many customers visit the canteen in their lunch break and recess, so they have limited time to eat and return to their respective offices (cabins) and classes. So, this software helps them to save time and order food whenever they want without calling the waiter again and again.

- **What is the Purpose the work?**

The main purpose of our project is to help people to save precious time. The system proposed focuses at canteen business process automation i.e. to digitalize all the processes and management of canteen. Efficient use of resources through rising productivity by automation The application provides a report that could be used for different purposes, such as accounting management and reference for future. It satisfies the



requirement of users. Understanding the working of system is not complicated in case of both the users and the admin.

Easy to operate.

Have a good UI(User Interface).

Scalable.

- **Why do we need this project?**

We felt that this project is necessary for the people who want to purchase their food in stipulated time period.

So there won't be any rush and queues.

Product will be delivered in efficient way.

- **How do we manage the system?**

So, hereby we create a website for the canteen management where all the SRM students and workers can access the website through their mail id. In this website we having all the list of item in the form of e-menu card so the person who wants to buy those can pre-order it in online and the receipt will be provided in the website or to their respective mail id. So, the person can get those products in stipulated time period in order to save the time.

- **What are the tools to be used to access the system?**

Mobile phones, Laptops and Pc's anyone of them can be used.

## **BUSINESS CASE TEMPLATE**

### **The Project:**

- It satisfies the requirement of users.
- Understanding the working of system is not complicated in case of both the users and the admin.
- Easy to operate.
- Have a good UI(User Interface).
- Scalable.
- Time Efficient.
- Very responsive.

## **The History:**

The customers and canteen management team are provided with the application deployed in the cloud which is accessible through a browser thus optimizes the old, time consuming and paper-based process of the canteen business by digitalizing complete process. With this up gradation, the customers can order before they leave their class room or staff room and the payment can also be done seamlessly with the help of online payment method. The canteen management have the benefit of avoiding paper usage, there is no need of extra man power in bill counter and they can manage the old data easily which will be useful for future.

## **Limitations:**

- The present technology is book-based, it has a huge downside of data supremacy, and calculations ought to be rendered manually.
- Another threat is that the data can be easily manipulated or lost. The cash payment also has a big drawback; the user needs to have cash carried with him/her. And he/she wants to pay the precise amount in any other case there is problem for the final amount.
- If the billing person provides a slip signed for remaining amount to be paid, he/she has to carry that along when he/she goes to canteen next time.
- One big concern is that in educational institutions, students / staffs will have food in the same cafe over the course of their studies or employment.
- In such instances a record of student's purchase is maintained in a bill book. The person in the bill counter manages the students' order and bill reports on a regular schedule, and then at the month's end amount to be paid by individual customer is evaluated.
- This system has problem of maintaining paper primarily based records.
- Such records are in danger of being ruined, and the student payment report information might be missed.

- Also, the current system provides RFID card to the customers, they can recharge this card with the amount they need. If the amount gets exhausted, again the customer's account has to be recharged. With this id the student/staff can do their purchase in the canteen by waving this card but the drawback is that the card can also get lost or get scratched.

### **Approach:**

- **Ideology:** Thorough with what we are looking for.
- To have clear knowledge on creating a website.
- To know about the database creations.

### **Benefits:**

- Helps in advance planning
- Reduces Administrative works
- Saves time & improves employee
- Reduces Wastage of food items
- Provides a fast and efficient service
- Increase customer satisfaction

### **Result:**

Thus, the project team formed, the project was described, the business case was prepared and the problem statement was arrived.



**Department of Networking and  
Communications SRM IST, Kattankulathur –  
603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	2
<b>Title of Experiment</b>	Identification of Process Methodology and Stakeholder Description
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /22

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<b>Total</b>		<b>10</b>	

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## **Aim**

To identify the appropriate Process Model for the project and prepare Stakeholder and User Description.

## **Project Title:**

### **CANTEEN MANAGEMENT SYSTEM**

Our knowledge on the agile and waterfall methodology shared below and we prefer agile methodology as we focus mainly on customer and end users to have more flexibility and feasibility.

<b><u>Factors</u></b>	<b><u>Agile Project Management</u></b>	<b><u>Waterfall Project Management</u></b>
<b>Project Scope</b>	defined, you can make the changes well in advance with time and within the budget.	Waterfall works well when the project scope is defined in advance. As it includes contract terms, it limits the changes.
<b>Team</b>	mid-sized team with high coordination.	The waterfall model demands to have large teams. Moreover, it decreases coordination among team members.
<b>Customers</b>	Customers can be available throughout the project.	Customers are available only at specific milestones.
<b>Customer Relationship</b>	Customers and developers are closely associated throughout the process.	There is a long-distance between customers and developers.
<b>Feature Prioritization</b>	It prioritizes features and resolves issues according to the set priority. This improves efficiency and eliminates complete failures.	As features are not prioritized, there are chances that this model leads to either complete success or complete failure.
<b>Feasibility</b>	The agile model looks better when the	The waterfall model does not depend on

	project is feasible.	the project's feasibility.
<b>Funding</b>	It works towards increasing funding efficiency.	It works by reducing fixed funding via up-front contracts.
<b>Release</b>	It includes repetitive iterations and multiple releases.	There is a single cycle and only one release.
<b>Flexibility</b>	The agile methodology is highly flexible.	The waterfall methodology is non-flexible and organized.
<b>Testing</b>	Testing happens in parallel with the development so that quality is ensured continuously.	Testing is done only after the development is finished.
<b>Project</b>	It involves a little project schedule risk.	There is a high project schedule risk.
<b>Product Delivery</b>	A Minimum Viable Product (MVP) is delivered at the end of each sprint/phase.	The product gets delivered at the end of the Software Development Life Cycle (SDLC).

Incorporate information to below table regarding stakeholders of the project [Make use of below examples]

Stakeholder Name	Activity/ Area /Phase	Interest	Influence	Priority (High/ Medium/ Low)
CANTEEN MANAGER	Monitor the employee work and are usually in charge of monitoring employee performance and the effectiveness of the website.	High	High	High
CANTEEN CHEF	The chef also monitors and/or supervises the preparation and administration of meals from the kitchen by other staff members	High	High	High
CANTEEN SERVER	Provide the food for customer	High	Low	Low
CUSTOMER /STUDENT/ TEACHER/END USER	Provide the feedback	Med	High	High

INVESTOR	The people who are funding on our project	High	Low	high
OWNER	Achieve targets and	High	low	High
	increase sales margin.			

#### Result

Thus the Project Methodology was identified and the stakeholders were described.





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**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	3
<b>Title of Experiment</b>	System, Functional and Non-Functional Requirements of the Project
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

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1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

**Aim**

To identify the system, functional and non-functional requirements for the project.

**Project Title:****CANTEEN MANAGEMENT SYSTEM****System Requirements:**

**Performance and Scalability.** The system is required to scale to support transaction volume. Web pages should be light and render fast.

**SOFTWARE REQUIREMENTS:**

**Operating System:** Window XP and above.

**Browsers:** Chrome or any other latest web page supporting browser.

**HARDWARE REQUIREMENTS:**

Here's what you need to use the canteen management system for online records:

- 20GB HDD.
- Minimum 256MB RAM.
- Pentium IV Processor (minimum requirements).
- Input Devices: Keyboard, Mouse, etc.

- Output Devices: Monitor, Printer, etc.

### **Functional Requirements:**

User of the canteen automation system, namely canteen customers, must be provided the following functionality:

- Create an account
- Manage their account.
- Log into the system.
- Navigate the canteen's menu.
- Select an item from the menu.
- Customize options for a selected item.
- Add an item to their current order
- Review their current order
- Remove an item /remove all items from their current order.
- Provide payment details.
- Place an order.
- Receive confirmation in the form of an order number

## **Non-Functional Requirements:**

Performance Criteria:

- **Time:**

The time elapsed between the submissions of order process between the customers  
And cashier time in a canteen should be as minimum as possible.

- **User-friendly:**

Our canteen automation system should be more users friendly. The user interface should be kept simple and uncluttered. Since the different type of people will interact with this process so our project should be very easy to them to understand

- **Flexibility:**

Our project should be flexible that whenever we want to make change in it very easily it can be done.

- **Extensibility:**

It should be able to accommodate the variations like:

1. The different order should be handled easily.
2. It should be an option for cash on delivery, pay through card between customer and canteen.

- **Portable:**

Our project should be portable on any platform and available on websites easily and at a faster speed than others.

- **Reusable:**

All the customer web pages that are being used for customer information should be easily get processed so that many customers can interact with us very easily and very fast without any information destroy.

**Result:**

Thus the requirements were identified and accordingly described.



**Department of Networking and  
Communications SRMIST, Kattankulathur–  
603203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	4
<b>Title of Experiment</b>	Prepare Project Plan based on scope, Calculate Project effort based on resources and Job roles and responsibilities
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

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1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## Aim

To Prepare Project Plan based on scope, Calculate Project effort base donre sources, Find Job roles and responsibilities.

## Requirements:

### 1. ProjectManagementPlan

Describe the key issues driving the project. [Min 3 Focus Areas]

Focus Area	Details
IntegrationManagement	Governance FrameworkProjectTeam Structure Roles & Responsibilities of TeamChangeManagement (Change Control, Issue Management)ProjectClosure
ScheduleManagement	Define MilestonesSchedu leControl
CostManagement	EstimateEffort Assign TeamBudgetContr ol
QualityManagement	Quality Assurance: Quality assurance will be managedincluding governance, roles and responsibilities, tools andtechniques andreporting.
ResourceManagement	Estimateand Managetheneed People: People & Skills RequiredFinance:BudgetRequire d Physical:Facilities,ITInfrastructure
CommunicationManagement	Determinecommunicationrequirements,rolesand responsibilities, tools and techniques. [Type ofCommunication,Schedule,MechanismRecipient ]
RiskManagement	Identifying,analyzing,andprioritizingprojectrisks

## 2. Estimation

### 2.1. Effort and Cost Estimation

Activity Description	Sub-Task	Sub-Task Description	Effort (in hours)	Cost in INR
Design the user screen	E1R1A1T1 (Effort-Requirement-Activity-Task)	Designing the User Login page	5	10000
	E1R1A1T2	Designing questionnaire for the user	4	8000
	E1R1A1T3	Designing the Home Page	7	14000
	E1R1A1T4	Designing the Analytics Page	10	20000
	E1R1A1T3	Designing the Back End	120	240000
Identify Data Source for displaying units of Energy Consumption		Go through Interface contract (Application Data Exchange) documents	5	10000
		Software testing	8	16000
		Document	3	6000

Effort (hr)	Cost (INR)
1	2000

### 2.2. Infrastructure/Resource Cost [CapEx]

Infrastructure Requirement	Qty	Cost per qty	Cost per item
IR1	PC's	4	70000
IR2	Hosting Server	1	6000
	Wi-Fi	1	4000
	Tie-Up with Hotel Management platform	NA	NA (Commission based)



## 2.3 Maintenance and Support Cost [OpEx]

Category	Details	Qty	Cost per qty per Annum	Cost per item
People	Network, System, Middleware and DB admin  Developer , Support Consultant	3	2,000,000	6,000,000
License	Operating System Database Middleware IDE	10	10000	100,000
Infrastructures	Server, Storage and Network	20	20000	400,000

## 3. Project Team Formation

### 3.1. Identification Team members

Name	Role	Responsibilities
Dinesh	Canteen manager (product owner)	Provide clear business , provides user requirements and monitor The online order
Saketh	Ux designer	Design the user experience
Karthic	Frontend Developer	Develop user interface
Dinesh	Backend developer	Design, Develop and Unit Test Services/API/DB
Saketh	Product manager	Gives the details about the products for the webpage.
Karthic	Tester	Define test cases and performs testing.

### 3.2. Responsibility Assignment Matrix

RACI Matrix	Team Members			
Activity	Designer	DEVELOPER	Project manager	Key business user
User Documentation		I	A	R
Bugfix		R	I	
Web design	R	A	C	
Testing		A	C	
Update & Upgrade		C	A	
Development	C	R	I	

### 3.3. Responsibility Assignment Matrix

A	Accountable
R	Responsible
C	Consult
I	Inform

Result:

Thus, the Project Plan was documented successfully.



**Department of Networking and Communications**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	5
<b>Title of Experiment</b>	Prepare Work breakdown structure, Timeline chart, Risk identification table
<b>Name of the candidate</b>	DHANUSHYA C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

**Mark Split Up**

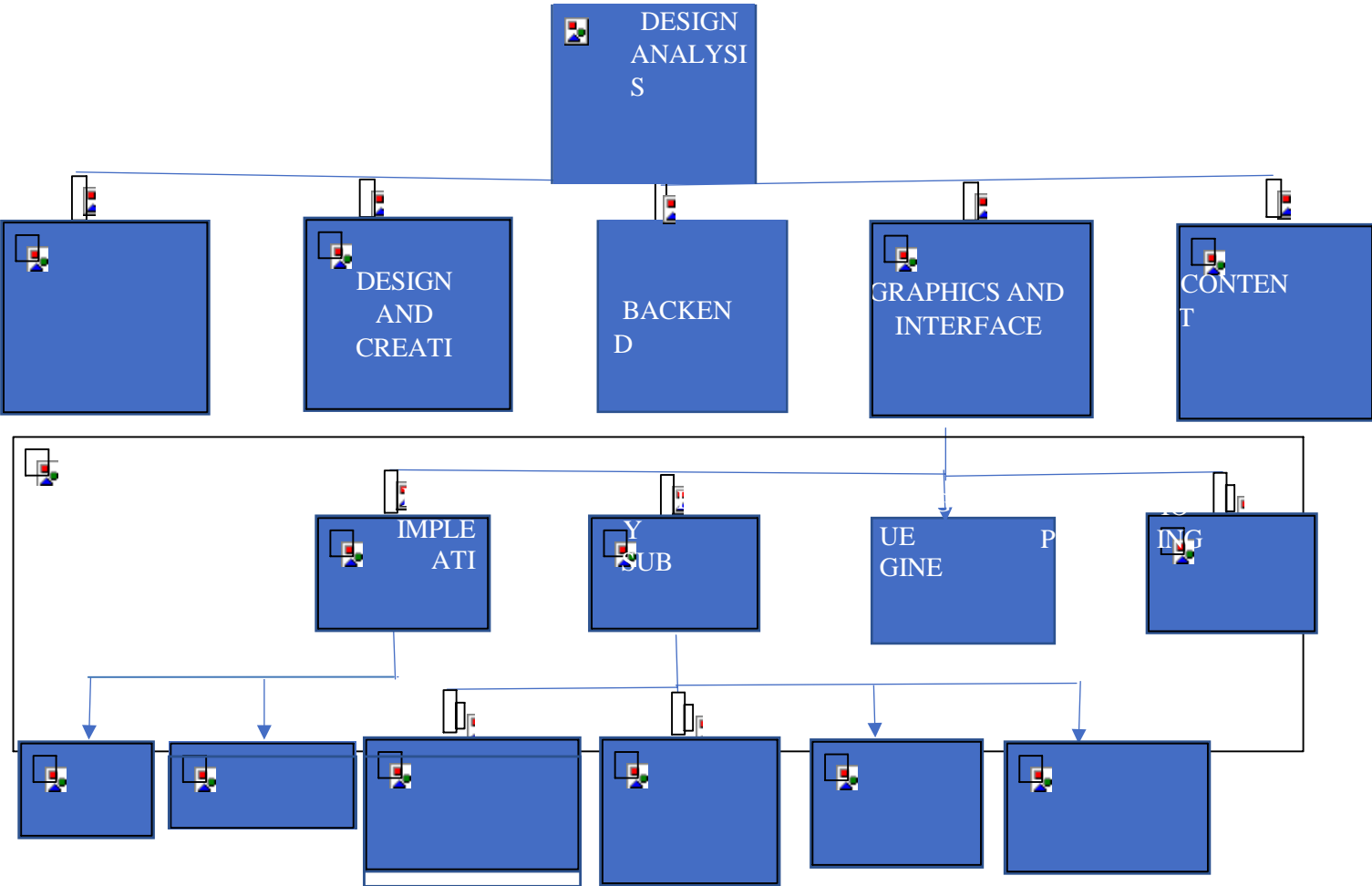
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1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

**Aim**

To Prepare Work breakdown structure, Timeline chart and Risk identification table

**WBS**



## 0.0 CANTEEN WEBSITE

### 1.0 Project Management

### 2.0 Requirements Gathering

### 3.0 Analysis & Design

### 4.0 Site Software Development

#### 4.1 Design and Creation

##### 4.1.1 Theme

##### 4.1.2 Templates

#### 4.2 Backend Software

##### 4.2.1 Database Implementation

##### 4.2.2 Security Subsystem

##### 4.2.3 Catalog Engine

##### 4.2.4 Transaction engine

### 4.3 Graphics and Interface

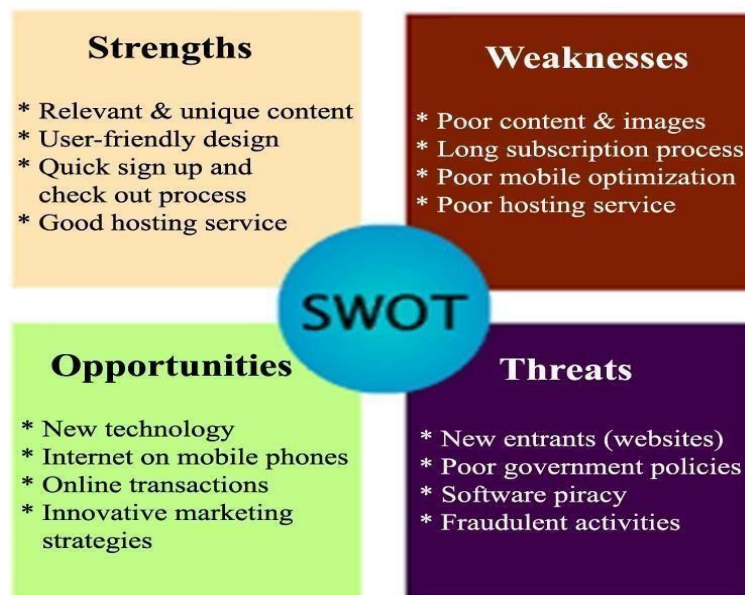
### 4.4 Content Creation

### 5.0 Testing and Production

## TIMELINE – GANTT CHART



## RISK ANALYSIS – SWOT & RMMM:



<b>RESPONSE</b>	<b>STRATEGY</b>	<b>EXAMPLES</b>
Avoid	Risk avoidance eliminate the threat to protect the project from the impact of the risk.	Extending the schedule
Transfer	Risk transfer entails shifts the impact of the threat to as third party, together with ownership of the response.	Contract insurance
Mitigate	Risk mitigation is a act to reduce the probability of occurrence or the impact of the risk.	Increasing testing
Accept	Risk acceptance acknowledge the risk, but do not take any action unless the risk occurs.	Contingency reserve budget

Result:

Thus, the work breakdown structure with timeline chart and risk table were formulated successfully.

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**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	6
<b>Title of Experiment</b>	Design a System Architecture, Use Case and Class Diagram
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /22

<b>S.No</b>	<b>Description Maximum Mark Mark Obtained</b>
1	Exercise 5
2	Viva 5
3	TOTAL

**Staff Signature with date**

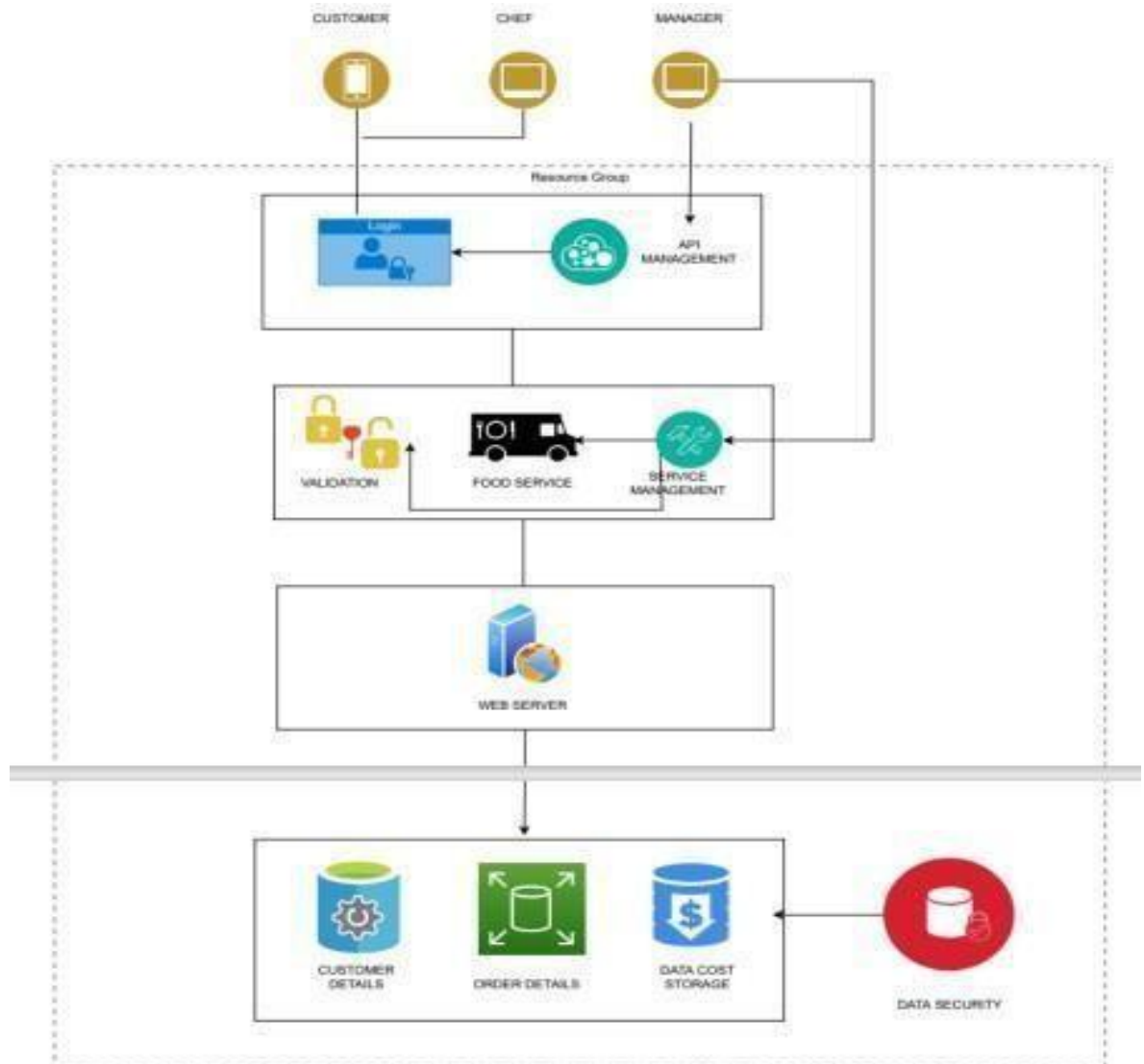


## Aim

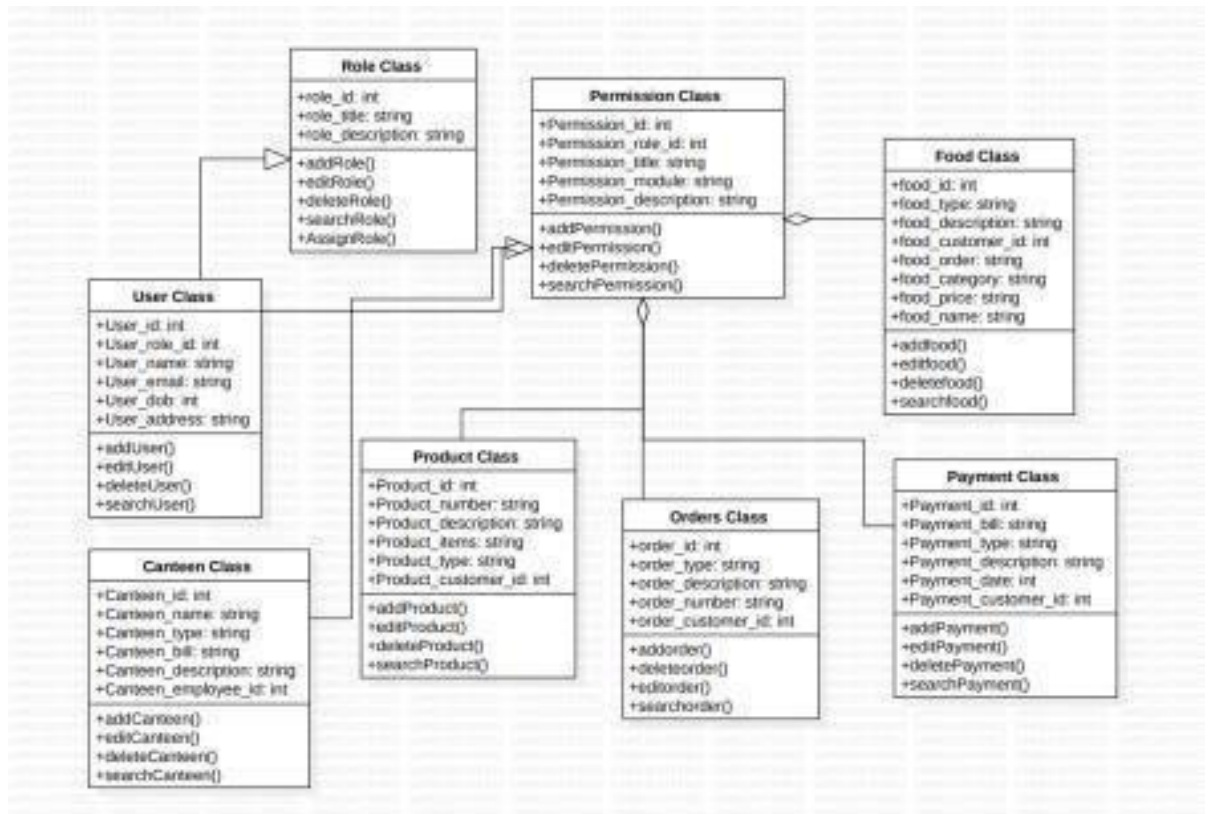
To Design a System Architecture, Use case and Class Diagram

## Requirements

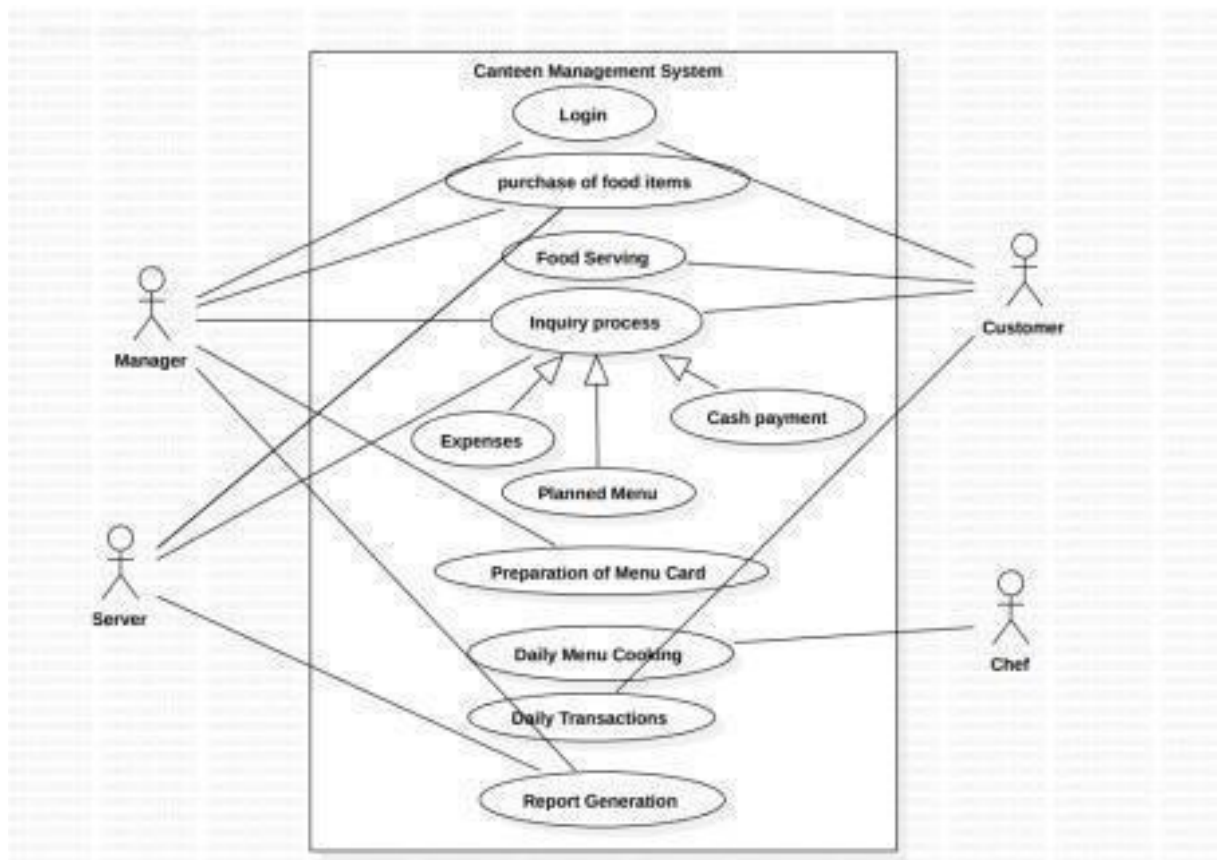
<System Architecture, Use Case and Class Diagram>



Class Diagram:



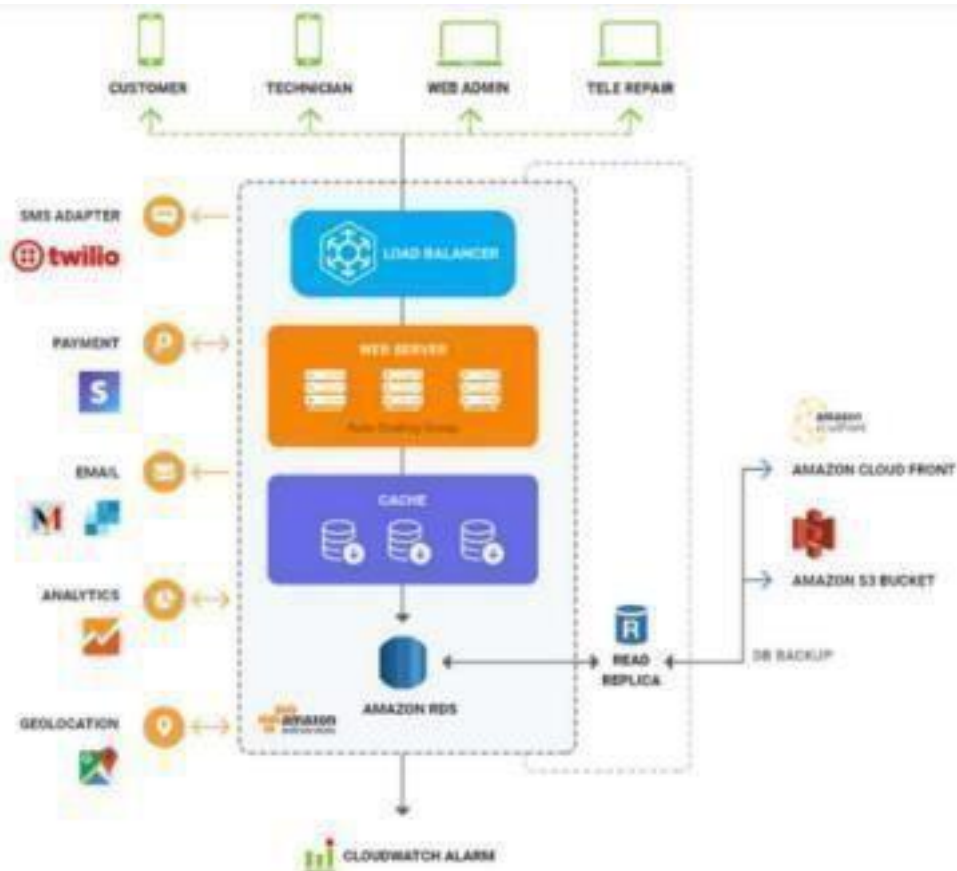
## USE CASE DIAGRAM:



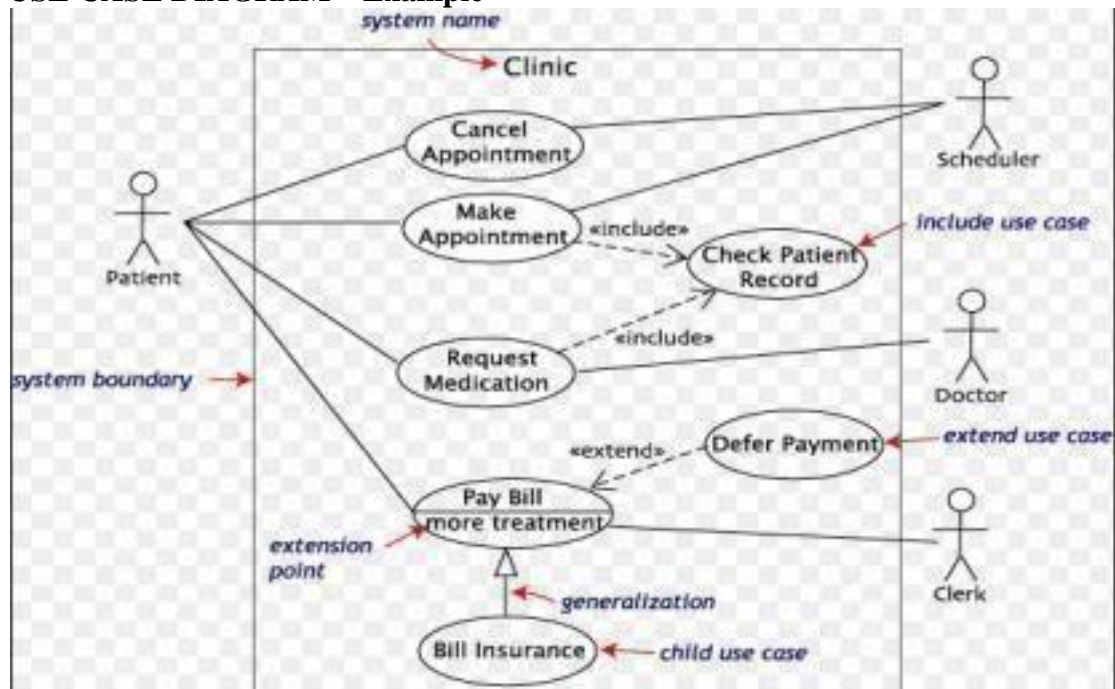
Result:

Thus, the system architecture, use case and class diagram created successfully.

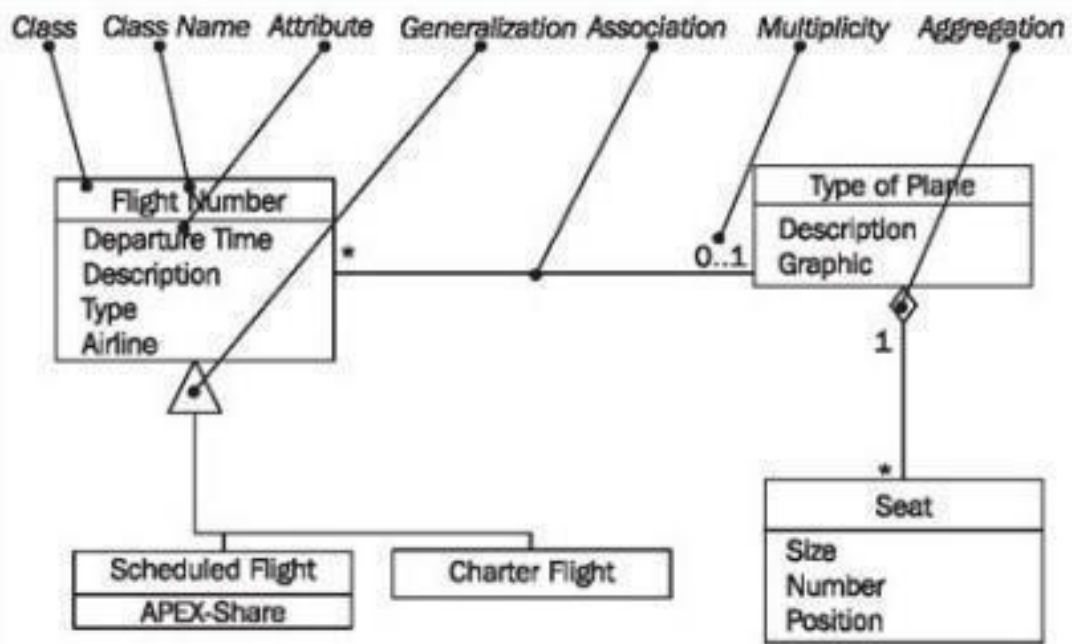
## SYSTEM ARCHITECTURE – Example



### USE CASE DIAGRAM – Example



### CLASS DIAGRAM – Example





**School of Computing**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	7
<b>Title of Experiment</b>	Design a Entity relationship diagram
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
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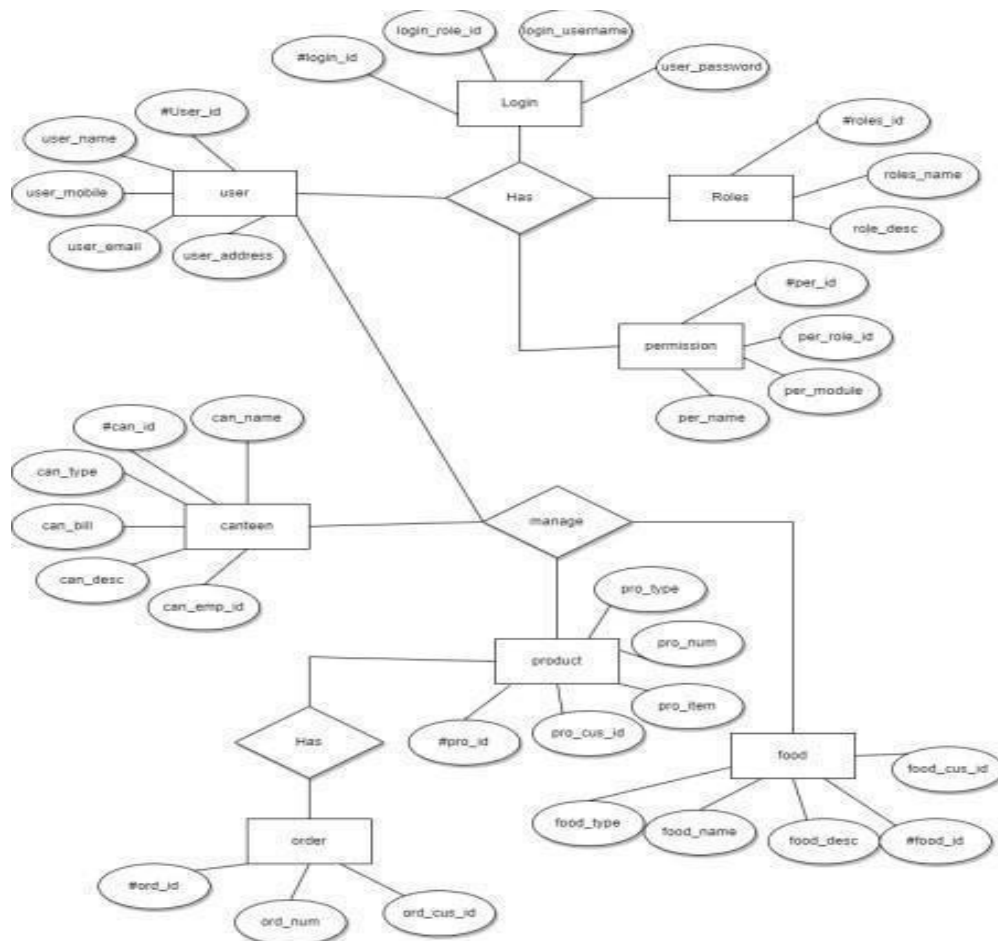
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<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## Aim

To create the Entity Relationship Diagram

<ER Diagram >



Result:

Thus, the entity relationship diagram was created successfully.

## **\*/ ER Diagram, Notation and Example**

### **What is ER Diagram?**

- ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. In other words, ER diagrams help to explain the logical structure of databases. ER diagrams are created based on three basic concepts: entities, attributes and relationships.
- ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships.
- At first look, an ER diagram looks very similar to the flowchart. However, ER Diagram includes many specialized symbols, and its meanings make this model unique. The purpose of ER Diagram is to represent the entity framework infrastructure.

### **What is ER Model?**

- ER Model stands for Entity Relationship Model is a high-level conceptual data model diagram. ER model helps to systematically analyze data requirements to produce a well designed database.
- ER Model represents real-world entities and the relationships between them. Creating an ER Model in DBMS is considered as a best practice before implementing your database.
- ER Modeling helps you to analyze data requirements systematically to produce a well designed database. So, it is considered a best practice to complete ER modeling before implementing your database.

### **Why use ER Diagrams?**

Here, are prime reasons for using the ER Diagram

- Helps you to define terms related to entity relationship modeling
- Provide a preview of how all your tables should connect, what fields are going to be on each table
- Helps to describe entities, attributes, relationships
- ER diagrams are translatable into relational tables which allows you to build databases quickly
- ER diagrams can be used by database designers as a blueprint for implementing data in specific software applications
- The database designer gains a better understanding of the information to be contained in the database with the help of ERP diagram
- ERD Diagram allows you to communicate with the logical structure of the database to users

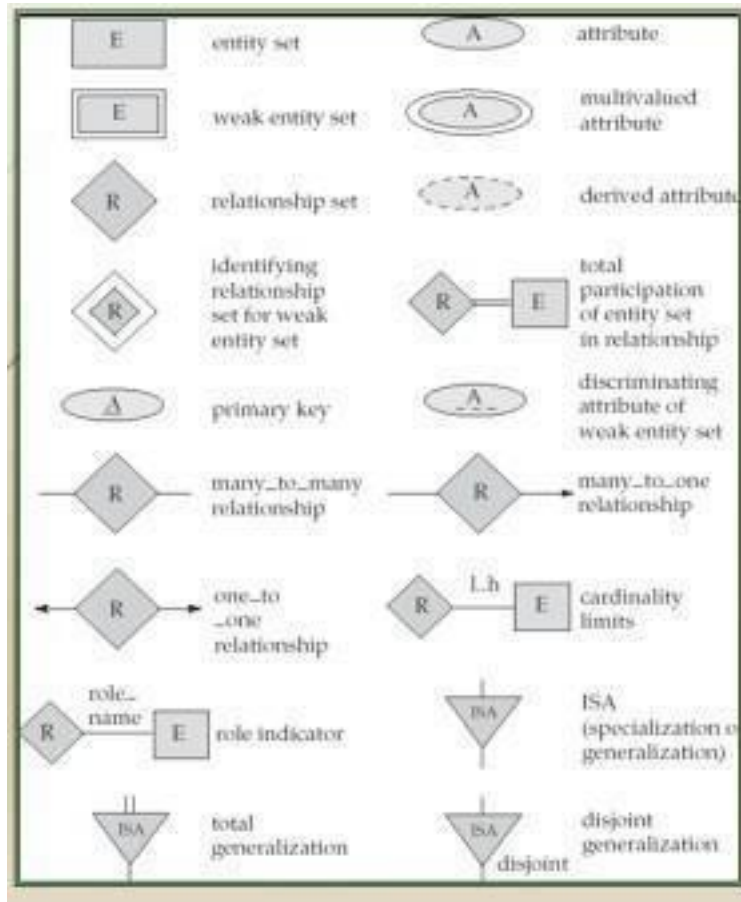
### **Components of the ER Diagram**

This model is based on three basic concepts: Entities, Attributes, Relationships

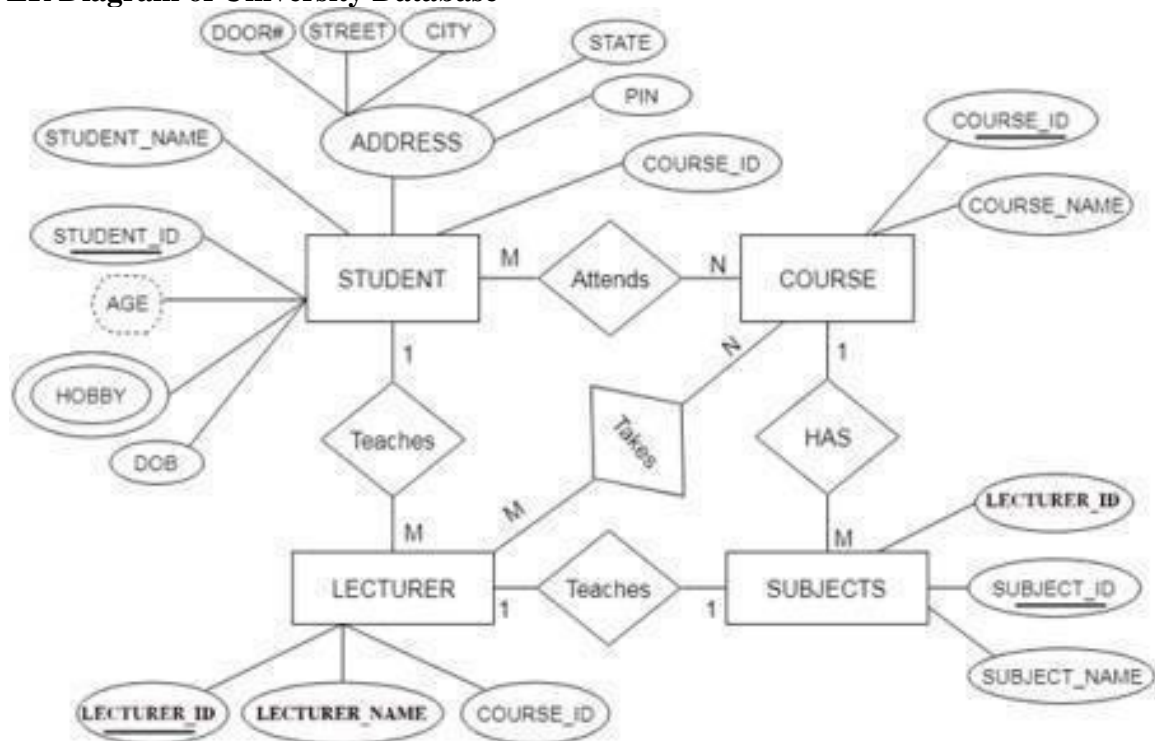
### **ER Diagram – Notations**

- Rectangles represent entity sets.
- Diamonds represent relationship sets.
- Lines link attributes to entity sets and entity sets to relationship sets.
- Ellipses represent attributes
- Double ellipses represent multivalued attributes.
- Dashed ellipses denote derived attributes.
- Underline indicates primary key attributes





**ER Diagram of University Database**



## **ADDITIONAL NOTES**

- A database can be modeled as a collection of entities, relationship among entities. - An entity is an object that exists and is distinguishable from other objects. Example: specific person, company, event, plant

- Entities have attributes.

Example: people have names and addresses

- An entity set is a set of entities of the same type that share the same properties. Example: set of all persons, companies, trees, holidays

- Express the number of entities to which another entity can be associated via a relationship set.

- Most useful in describing binary relationship sets.

- We express cardinality constraints by drawing either a directed line (->), signifying “one,” or an undirected line (—), signifying “many,” between the relationship set and the entity set.

- An entity is represented by a set of attributes, that is descriptive properties possessed by all members of an entity set.

Example: customer = (customer-id, customer-name, customer-street, customer-city) loan = (loan-number, amount)

- Domain – the set of permitted values for each attribute

- Attribute types:

1. Simple and composite attributes.

2. Single-valued and multi-valued attributes

E.g. multivalued attribute: phone-numbers

3. Derived attributes-Can be computed from other attributes

E.g. age, given date of birth

### **Cardinality**

- For a binary relationship set the mapping cardinality must be one of the following types: 1. One to one

A customer is associated with at most one loan via the relationship borrower. A loan is associated with at most one customer via borrower

2. One to many

A loan is associated with at most one customer via borrower, a customer is associated with several (including 0) loans via borrower

3. Many to one

A loan is associated with several (including 0) customers via borrower, a customer is associated with at most one loan via borrower

4. Many to many

A loan is associated with several (including 0) customers via borrower, a customer is associated with several loans (including 0) via borrower

### **Weak Entity Set**

- An entity set that does not have a primary key is referred to as a weak entity set and represented by double outlined box in E-R diagram.

Example : Consider the entity set payment which got three attributes : payment\_number, payment\_date and payment\_amount. Payment numbers are sequential starting from 1 generally separately for each loan. Although each payment entity is distinct, payments for different loans may share the same payment number. Thus this entity set does not have a primary key.

**Discriminator**

- The discriminator (or partial key) of a weak entity set is the set of attributes that distinguishes among all the entities of a weak entity set. Example: discriminator of weak entity set payment is the attribute payment\_number since for each loan a payment number uniquely identifies one single payment for that loan.

**Specialization-Generalization-ISA**

- E-R model provides means of representing these distinctive entity groupings - Process of designating subgroupings within an entity set is called specialization depicted by triangle component labelled ISA ("is a")  
- Bottom up design process in which multiple entity sets are synthesized into higher level entity set - Generalization  
- ISA relationship may also be referred to as superclass-subclass relationship - Higher and lower level entity sets are designated by the terms superclass and subclass. - Specialization and generalization are simple inversions of each other; they are represented in an E-R diagram in the same way.

**Total & Partial Participation**

- Total participation (indicated by double line): every entity in the entity set participates in at least one relationship in the relationship set

E.g. participation of loan in borrower is total, every loan must have a customer associated to it via borrower

- Partial participation: some entities may not participate in any relationship in the relationship set

Example: participation of customer in borrower is partial

**Cardinality limits**

- Cardinality limits can also express participation constraints

- Minimum and maximum cardinality is expressed as l..h where l is the minimum and h is the maximum cardinality

- Minimum value of 1 indicates total participation of entity set in relationship set

- Maximum value of 1 indicates entity participates in at most one relationship set.

- Maximum value of \* indicates no limit

**Role indicator**

- Entity sets of a relationship need not be distinct

- The labels "manager" and "worker" are called roles; they specify how employee entities interact via the works-for relationship set.

- Roles are indicated in E-R diagrams by labeling the lines that connect diamonds to rectangles.

- Role labels are optional, and are used to clarify semantics of the relationship

**Disjoint Generalization**

- Disjointness constraint requires that an entity belong to more than one lower level entity set. Example: account entity can satisfy only one condition for account\_type attribute ; entity can either be savings or chequing account but not both.



## School of Computing

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	8
<b>Title of Experiment</b>	Develop a Data Flow Diagram (Process-Up to Level 1)
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

### Mark Split Up

S. No	Description	Maximum Mark	Mark Obtained
1	Exercise	5	
2	Viva	5	
	Total	10	

**Staff Signature with date**

## **Aim**

To develop the data flow diagram up to level 1 for the <project name>

<DFD >

## **Result:**

Thus, the data flow diagrams have been created for the <project name>.

## **Data Flow Diagram**

The DFD takes an input-process-output view of a system. That is, data objects flow into the software, are transformed by processing elements, and resultant data objects flow out of the software. Data objects are represented by labeled arrows, and transformations are represented by circles (also called bubbles). The DFD is presented in a hierarchical fashion. That is, the first data flow model (sometimes called a level 0 DFD or context diagram) represents the system as a whole. Subsequent data flow diagrams refine the context diagram, providing increasing detail with each subsequent level.

The data flow diagram enables you to develop models of the information domain and functional domain. As the DFD is refined into greater levels of detail, you perform an implicit functional decomposition of the system. At the same time, the DFD refinement results in a corresponding refinement of data as it moves through the processes that embody the application.

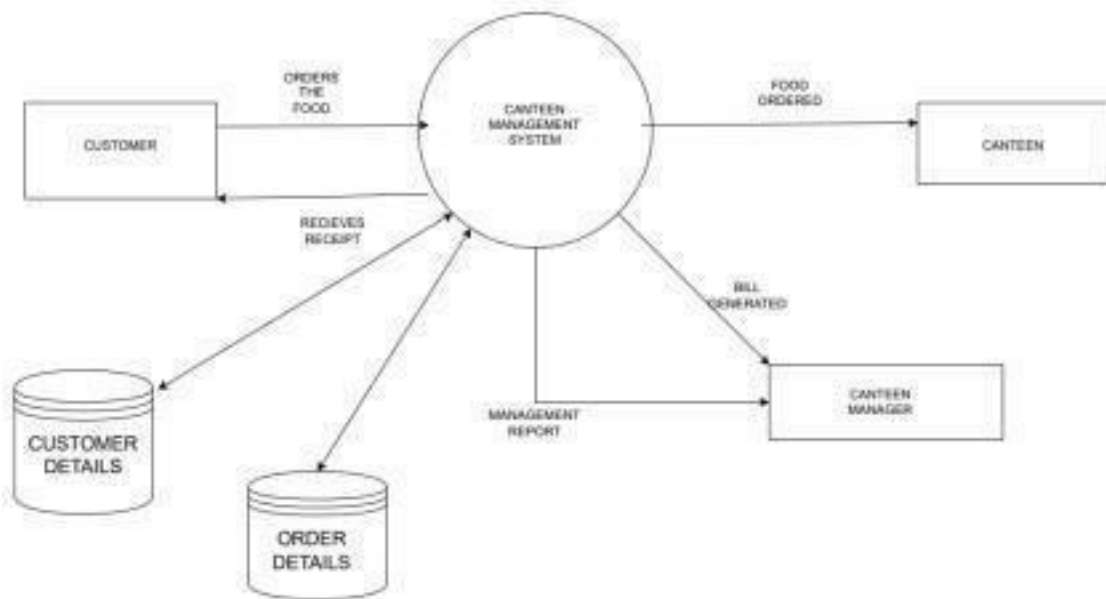
A few simple guidelines can aid immeasurably during the derivation of a data flow diagram:

- (1) Level 0 data flow diagram should depict the software/system as a single bubble;
- (2) Primary input and output should be carefully noted;

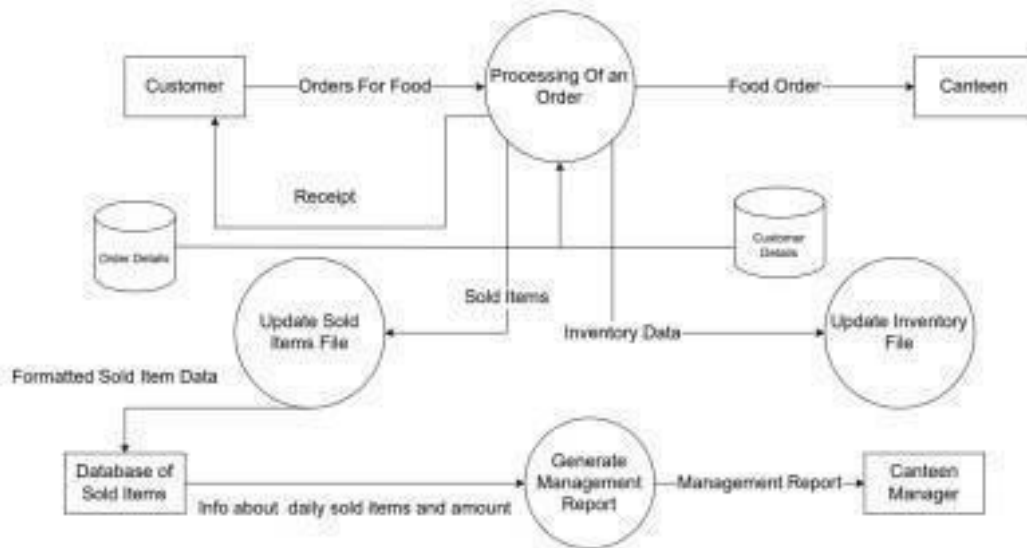
- (3) Refinement should begin by isolating candidate processes, data objects, and data stores to be represented at the next level;
- (4) All arrows and bubbles should be labeled with meaningful names;
- (5) Information flow continuity must be maintained from level to level and (6) One bubble at a time should be refined. There is a natural tendency to overcomplicate the data flow diagram. This occurs when you attempt to show too much detail too early or represent procedural aspects of the software in lieu of information flow.

**\*/ For Example**

**DFD Level 0**



## DFD Level 1



## Result:

Thus, the system architecture, use case and class diagram created successfully.



## School of Computing

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	9
<b>Title of Experiment</b>	Design a Sequence and Collaboration Diagram
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E  Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

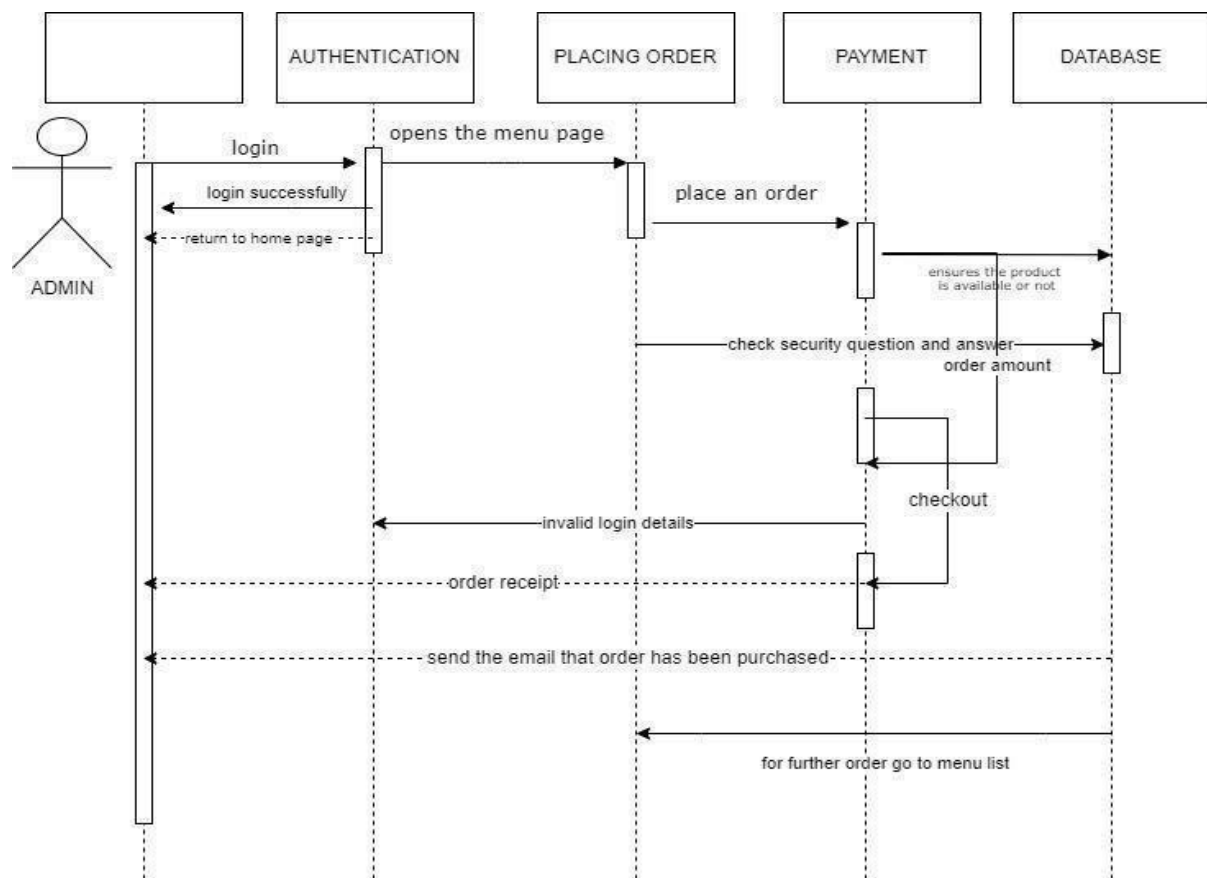
**Staff Signature with date**



## Aim

To create the sequence and collaboration diagram for the CANTEEN MANAGEMENT SYSTEM.

## Sequence Diagram:



### Food Order Collaboration Diagram

```

sequenceDiagram
    participant staff as staff:Staff
    participant foodOrderController as foodOrderController:FoodOrderController
    participant menu as menu:Menu
    participant foodOrderUI as foodOrderUI:FoodOrderUI
    participant order as order:Order
    participant orderDetail as orderDetail:OrderDetail
    participant payment as payment:Payment

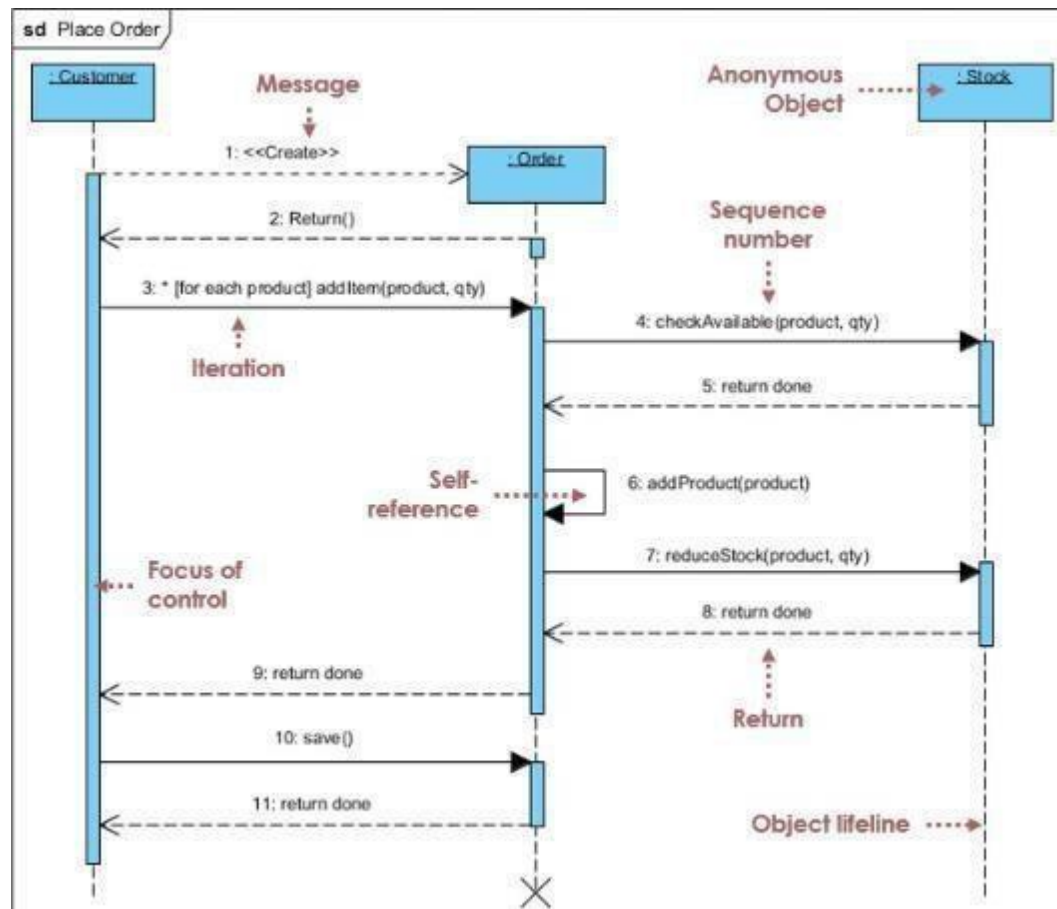
    staff->>foodOrderController: 1: StartUI
    foodOrderController->>menu: 2.1.1: ProcessMenuOrder
    menu->>order: 2.1.1.1: CreateOrder
    order->>orderDetail: 3: CreateOrderDetail
    orderDetail->>payment: 4: CreatePayment
    payment->>payment: 6.1.1.1.1: UpdatePaymentDetail
    payment->>payment: 7.1.1.1.1: UpdatePaymentDetail
    orderDetail->>order: 6.1.1.1: UpdateOrderDetail
    orderDetail->>order: 7.1.1.1: DeleteOrderDetail
    order->>foodOrderUI: 6.1.1: UpdateOrderDetail
    order->>foodOrderUI: 7.1.1: DeleteOrderDetail
    foodOrderUI->>foodOrderController: 7.1.1: ValidateDeleteDetail
    foodOrderUI->>foodOrderController: 7.1.1: ValidateDeleteDetail
    foodOrderController->>foodOrderUI: 5.1: GetSearchDetail
    foodOrderController->>foodOrderUI: 6.1: ValidateUpdatedDetail
    foodOrderController->>foodOrderUI: 2.1: GetMenuOrder
    foodOrderUI->>foodOrderController: 5: EnterSearchDetail
    foodOrderUI->>foodOrderController: 6: EnterUpdatedDetail
    foodOrderUI->>foodOrderController: 7: SelectDeleteDetail
    foodOrderController->>staff: 1: StartUI
  
```

The diagram illustrates the following sequence of interactions:

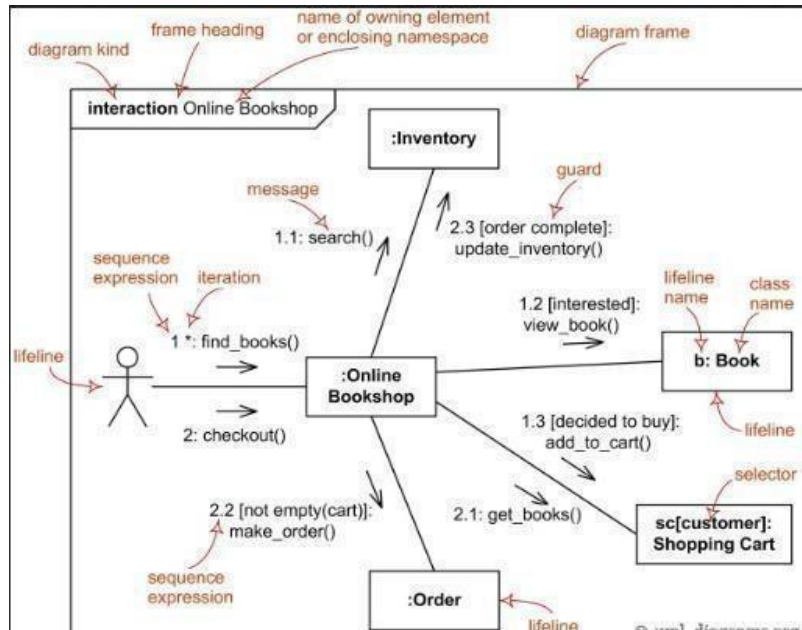
- staff:Staff** initiates the process with **1: StartUI** to **foodOrderController:FoodOrderController**.
- foodOrderController:FoodOrderController** sends **2.1.1: ProcessMenuOrder** to **menu:Menu**.
- menu:Menu** sends **2.1.1.1: CreateOrder** to **order:Order**.
- order:Order** sends **3: CreateOrderDetail** to **orderDetail:OrderDetail**.
- orderDetail:OrderDetail** sends **4: CreatePayment** to **payment:Payment**.
- payment:Payment** performs self-interactions: **6.1.1.1.1: UpdatePaymentDetail** and **7.1.1.1.1: UpdatePaymentDetail**.
- orderDetail:OrderDetail** sends **6.1.1.1: UpdateOrderDetail** and **7.1.1.1: DeleteOrderDetail** to **order:Order**.
- order:Order** sends **6.1.1: UpdateOrderDetail** and **7.1.1: DeleteOrderDetail** to **foodOrderUI:FoodOrderUI**.
- foodOrderUI:FoodOrderUI** sends **7.1.1: ValidateDeleteDetail** to **foodOrderController:FoodOrderController**.
- foodOrderController:FoodOrderController** sends **5.1: GetSearchDetail**, **6.1: ValidateUpdatedDetail**, and **2.1: GetMenuOrder** to **foodOrderUI:FoodOrderUI**.
- foodOrderUI:FoodOrderUI** sends **5: EnterSearchDetail**, **6: EnterUpdatedDetail**, and **7: SelectDeleteDetail** to **foodOrderController:FoodOrderController**.
- foodOrderController:FoodOrderController** sends **1: StartUI** back to **staff:Staff**.

**\*/ For Example**

## Sequence Diagram



## Collaboration Diagram



## Result:

Thus, the sequence and collaboration diagrams were created for the CANTEEN MANAGEMENT SYSTEM.



**School of  
Computing**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	10
<b>Title of Experiment</b>	Develop a Testing Framework/User Interface
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403 RA2011003011373 RA2011003011379
<b>Date of Experiment</b>	/ /22

**Mark Split Up**

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

**Aim: To develop the testing framework and /or user interface framework for the canteen management system.**

### **Executive Summary:**

- The Scope of testing of our Canteen Management System includes Testing API integration with consistent data with Computed-Generated tests ,making test cases for different modules to check if the code can withstand boundary cases that can arise if an exception arises.
- The objective of this testing includes testing of all modules and to check if any exception exists in any of the modules.
- Regression(Re-running the test cases after change) testing would be important part of software practice that would ensure our application still functions as expected after any code changes, updates, or improvements.
- Lastly critical path testing would be aimed at exploring the functionality used by typical daily activities.

## **Test Plan:**

We as team have decided that the testing will follow top-down approach, as it will go well with Agile method of software development. With this method the testing can begin at the start of the project with continuous integration between development and testing. Agile Testing methodology will be continuous and helps us finish our projects before deadline. We will 1<sup>st</sup> go through the components , then test the archetype and then other minute details. After completing the functional testing we will move on to non-functional testing.

## **Scope of Testing**

The scope of testing for Canteen Management System includes testing API integration with consistent data along with Computer-Generated test cases, making test-cases for different modules to check if the code can withstand boundary cases can arise if an exception arises.

## **Functional Testing**

Our application Canteen Management System is done with four stages:

<b>Unit Testing</b>	Unit testing is the first level of testing and will be performed by the developers themselves. It is a process of ensuring individual components of piece of software at the code level are functional and work as they were designed to.
<b>System testing</b>	System testing is a black box testing method used to evaluate completed and integrated system, as a whole , to ensure if it meets specific requirements.

<b>Integration testing</b>	After each unit is thoroughly tested, it is integrated with other units to create modules or components that are designed to perform specific tasks or activities. The integration of the various modules are tested in the phase.
<b>Acceptance testing</b>	Acceptance testing is the last phase of functional testing and it is used to access whether or not the final piece of software is ready for delivery. If not, user feedback is taken and following changes are made.

### **Modules and the aspects they will be testing**

<b>User interface testing</b>	The testing of this particular module code will consist of checking if the application displace all the required buttons and check if the settings panel is in with the main screen. The layout and search bar should be placed in a user friendly manner .
<b>API Integration</b>	The testing of the code of this module deal with the connectivity and processing of different applications. We will check that how much traffic that the website can handle, in short the number of applications running simultaneously to provide data such as scraping tool
<b>Payment</b>	The need of this module is to ensure the security reliability and performance of payment gateway by encrypting and securing the payment



	details between user and merchant while providing a smooth payment experience.
<b>Backup</b>	In this module, we will be checking if the backup is being made and is being retrieved as and when the user wants to.

## **Non-Functional**

<b>Performance testing</b>	It is an non functional testing technique used to determine how an application will behave under various conditions
<b>Security testing</b>	With the presence of cloud base testing platforms and cyber attacks, there is a growing concern and need for security of data being used and stored in software. It is an non functional and software testing technique used to determine if the information and data in a system is protected.
<b>Data latency</b>	It is an key metric that helps to determine the effectiveness of the application this makes the faster delivery of the data that is much more important.
<b>Availability</b>	This application is available in whatever browser we are using. As it is an user friendly application. Logging in is effective.

## **Types of testing, methodology, tools**

<b><u>Category</u></b>	<b><u>Methodology</u></b>	<b><u>Tools required</u></b>
Functional requirements	Manual	<ol style="list-style-type: none"><li>1. Acceptance testing</li><li>2. White box testing</li><li>3. Black box testing</li><li>4. Unit testing</li><li>5. System testing</li><li>6. Integration testing</li></ol>
Non functional requirements	Manual	<ol style="list-style-type: none"><li>1. Authentication</li><li>2. Security</li><li>3. Data latency</li><li>4. Performance</li><li>5. Availability</li></ol>

## **Result:**

Thus, the testing frame work/the user interface, frame work has been created for Canteen Management System.



**School of Computing**

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	11
<b>Title of Experiment</b>	Test Cases
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

**Mark Split Up**

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

### Aim

To develop the test cases manual for the Canteen Management System.

## Test Case

### Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
	Verify Admin Login	Approval of software access to registered admin	1. Enter the login details in the text box 2. Click Login button	User should be taken to the next page for accessing software		Pass / Failure	success
	Verify user Login	Approval of software access to registered user	3. Enter the login details in the text box 4. Click Login button	User should be taken to the next page for accessing software		Pass / Failure	success
	Verify order	User the select food	1.Its go Payment page	User pay the bill		Pass/Failure	success

# Non-Functional Test Cases

Test ID (#)	Test Scenario	Test Case	Execution Steps	Expected Outcome	Actual Outcome	Status	Remarks
	Compatibility Testing	Software must be installable on all versions of Windows, Mac and Linux	<ol style="list-style-type: none"> <li>Click on Download option of software</li> <li>Run setup file</li> </ol>	Setup file runs and the OS supports the website or app		Pass/Failure	success
	Performance Testing	Response time on all functions must be significantly low	<ol style="list-style-type: none"> <li>Choose the available options in the software</li> </ol>	The response time for function to begin and load in the data must be very fast		Pass/Failure	success
	Security Testing	It ensures that the software system and application are free from any threats or risks that can cause a loss	<ol style="list-style-type: none"> <li>Large amounts of data is to be transmitted from all nodes in network but within limits</li> </ol>	The scan functions must not miss out any packets that were transmitted		Pass/Failure	success

Result:

Thus, the test case manual has been created for the canteen management system.



## School of Computing

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	12
<b>Title of Experiment</b>	ARCHITECTURE/DESIGN/Framework/IMPLEMENTATION
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

### Mark Split Up

S.	Description	Maximum Mark	Mark Obtained
	Exercise	5	
2	Viva		

**Staff Signature with date**

**Aim:**

To Prepare Manual Test Case Report for Canteen Management System.

Category	Progress Against Plan	Status
Functional Testing	Amber	In-Progress
Non Functional Testing	Amber	In-Progress

Functional	Test Case Coverage (%)	Status
Login		In-Progress
Order tracking		In-Progress
Adding products to the cart		In-Progress
Errors	40%	In-Progress
User Registration	50%	In-Progress

	Test Case Coverage (%)	Status
Authentication	50% (Working Prototype)	In-Progress
Security	50% (Working Prototype)	In-Progress
Data	50% (Working Prototype)	In-Progress
Performance	50% (Working Prototype)	In-Progress
Availability	50% (Working Prototype)	In-Progress

Result: Thus, the test case report has been created for the Canteen Management System.





## School of Computing

**SRM IST, Kattankulathur – 603 203**

**Course Code: 18CSC206J**

**Course Name: Software Engineering and Project Management**

<b>Experiment No</b>	13
<b>Title of Experiment</b>	Conclusion/Appendix/Reference
<b>Name of the candidate</b>	Dhanushya C
<b>Team Members</b>	Manisha E Mohammad Sabiq
<b>Register Number</b>	RA2011003011403, RA2011003011373, RA2011003011379
<b>Date of Experiment</b>	/ /2022

### Mark Split Up

<b>S. No</b>	<b>Description</b>	<b>Maximum Mark</b>	<b>Mark Obtained</b>
1	Exercise	5	
2	Viva	5	
<b>Total</b>		<b>10</b>	

**Staff Signature with date**

## Aim:

To conclude the project and to create appendix for the canteen management project

## Conclusion:

- The development of Canteen Management System involved many phases. The approach used is a top-down one concentrating on what first then how and moving to successive levels of details.
- The first phase started with a detailed study of the problems and prospects of ordering in Foods.
- This Software is efficient in maintaining customer's details and can easily perform operations on platform.

## Implementation:

### Source Code:

```
function login ()
{

    var username=document.getElementById("username").value;
    var password=document.getElementById("password").value;
    if(username=="admin" && password=="Sabiq")
    {
        location.assign("file:///Users/sabiq/Documents/SEPM/project%202/logedinhomepage.html");
        flag=1;
        if(flag==1)
        {
            window.alert("login successfull");
        }
    }
    else
    {
        window.alert("login failed");
    }
}
body{
    margin: 0px;
    font-family: Arial, Helvetica, sans-serif;
}
.nav-bar{
    display: flex;
    position: absolute;
    /* z-index:1 ; */
    /* top: 0; */
    padding: 5px;
    /* position: sticky; */
    /* margin-top: 30px; */
    justify-content: space-around;
    /* background-color: rgb(230, 184, 231); */
}
.nav-items {
```

```

display: flex;
justify-content: flex-end;
padding-left: 27cm;
/* align-items: right; */
/* align-items: center; */
/* margin-right: 20px; */
}

.example{
display: flex;
padding: 5px;
}

.nav-items input{
display: flex;
margin-top: 0%;
height: 30%;
border-radius: 1cm;

opacity: 0.7;
background: white;
padding: 5px 2px;
color: black;
}

.nav-items button{

display: flex;
border-radius: 1cm;
background-color: white;
padding: 10px 40px;
opacity: 0.7;
justify-content: space-around;
}

.nav-items .search{
padding: 5px;
background-color: #000;
}

.nav-items .GFG a {
margin: 20px;
display: flex;
text-decoration: none;
color: #000;
padding: 0.5cm 1.5cm ;
}
#see{
background-color: white;
padding: 10px 5px;
}

```

```

#login{
  margin-top: 5px;
}

#ii{
  border: 2px solid black;
  cursor:auto;
  margin: 0%;
  padding: 0%;
}
#mm{
  z-index: 1;
  position: absolute;
  top: 35%;
  left: 47%;
  transform: translate(-45%, -49%);

  color:rgb(3, 3, 136) ;
  font-weight:1cm;
  font-style: inherit;
  font-size: 1.5cm;

}
.center{
  z-index: 12;
  position: absolute;
  top: 40%;
  left: 50%;
  transform: translate(-50%, -50%);
  padding: 20px 20px 20px 20px;
  width: 20cm;
  height: 50px;
  border-radius: 2cm;
  background-color: white;
  opacity: 0.4;
}

.services {
  position: absolute;
  top: 92%;
  width: 75%;
  height: 5cm;
  display: flex;
  justify-content: space-between;
  padding: 45px;
  background-color: burlywood;
  margin-left: 10%;
}
#a{
  border: 5px solid black;
  padding: 5px;
  cursor: pointer;

```

```

    background-color: aliceblue;
}

.book{
    color: gray;
    position: absolute;
    top: 77%;
    margin-left: 10%;
    width: 78.48%;
    height: 5cm;
    padding: 20px;
background-color: burlywood;
text-align: center;
}

.emp{
    position: absolute;
    border: 4px solid black;
    top: 120%;
    left: 13%;
    padding: 10px 50px;
}

#cp{
    position: absolute;
    border: 4px solid black;
    top: 120%;
    left: 34%;
    padding: 10px 38px;
}

#ep{
    position: absolute;
    border: 4px solid black;
    top: 120%;
    left: 54.7%;
    padding: 10px 35px;
}

#pp{
    position: absolute;
    border: 4px solid black;
    top: 120%;
    left: 76%;
    padding: 10px 49px;
}
body{
    margin: 0px;
    font-family: Arial, Helvetica, sans-serif;
}.nav-bar{
    display: flex;
    position: absolute;
    /* z-index:1 ; */

```

```

    /* top: 0; */
    padding: 5px;
    /* position: sticky; */
    /* margin-top: 30px; */
    justify-content: space-around;
    /* background-color: rgb(230, 184, 231); */
}
.nav-items {

    display: flex;
    justify-content: flex-end;
    padding-left: 27cm;
    /* align-items: right; */
    /* align-items: center; */
    /* margin-right: 20px; */
}

.example{
    display: flex;
    padding: 5px;
}

.nav-items input{
    display: flex;
    margin-top: 0%;
    height: 30%;
    border-radius: 1cm;

    opacity: 0.7;
    background: white;
    padding: 5px 2px;
    color: black;
}

.nav-items button{

    display: flex;
    border-radius: 1cm;
    background-color: white;
    padding: 10px 40px;
    opacity: 0.7;
    justify-content: space-around;
}

.nav-items .search{
    padding: 5px;
    background-color: #000;
}

.nav-items .GFG a {
    margin: 20px;
    display: flex;
    text-decoration: none;

```

```

    color: #000;
    padding: 0.5cm 1.5cm ;

}
#see{
    background-color: white;
    padding: 10px 5px;
}

#login{
    margin-top: 5px;
}

#ii{
    border: 2px solid black;
    cursor:auto;
    margin: 0%;
    padding: 0%;
}
#mm{
    z-index: 1;
    position: absolute;
    top: 35%;
    left: 47%;
    transform: translate(-45%, -49%);

    color:rgb(3, 3, 136) ;
    font-weight:1cm;
    font-style: inherit;
    font-size: 1.5cm;

}
.center{
    z-index: 12;
    position: absolute;
    top: 40%;
    left: 50%;
    transform: translate(-50%, -50%);
    padding: 20px 20px 20px 20px;
    width: 20cm;
    height: 50px;
    border-radius: 2cm;
    background-color: white;
    opacity: 0.4;
}

.services {
    position: absolute;
    top: 92%;
    width: 75%;
    height: 5cm;
    display: flex;
    justify-content: space-between;

```

```
padding: 45px;
background-color: burlywood;
margin-left: 10%;
}
```

```
#a{
border: 5px solid black;
padding: 5px;
cursor: pointer;
background-color: aliceblue;
}
```

```
.book{
color: gray;
position: absolute;
top: 77%;
margin-left: 10%;
width: 78.48%;
height: 5cm;
padding: 20px;
background-color: burlywood;
text-align: center;
}
```

```
.emp{
position: absolute;
border: 4px solid black;
top: 120%;
left: 13%;
padding: 10px 50px;
}
```

```
#cp{
position: absolute;
border: 4px solid black;
top: 120%;
left: 34%;
padding: 10px 38px;
}
```

```
#ep{
position: absolute;
border: 4px solid black;
top: 120%;
left: 54.7%;
padding: 10px 35px;
}
```

```
#pp{
position: absolute;
border: 4px solid black;
top: 120%;
left: 76%;
padding: 10px 49px;
```



```

}
body{
    margin: 0;
    background-image: url(/headshot-joyful-woman-has-dark-straight-hair-covers-eye-with-sponge-has-fun-after-
cleaning-room-poses-table-with-chemical-products-colourful-bottles.jpg);
    background-size: 100%;
}

.table{
    z-index: 1;
    width: 400px;
    height: 400px;
    background-color: rgb(71, 71, 71);
    border-radius: 15px;
    margin-top: 10%;
    margin-left: auto;
    margin-right: auto;
    font-family: Arial, Helvetica, sans-serif;
    opacity:0.6;
    color: white;
}

button{
    background-color: yellow;
    border-radius: 5px;
    padding: 10px 20px;
    color: black;
}

a{
    color:aqua;
}
body{
    margin: 0;
}
.table{
    position: absolute;
    background-color: rgb(189, 180, 180);
    margin-top: 7%;
    margin-left: 125px;
    margin-right: auto;
    font-family: Arial, Helvetica, sans-serif;
    border-radius: 15px;
    opacity: 0.7;
}
.button{
    background-color:skyblue;
    padding: 10px 20px;
    border-radius: 10px;
}

```

## Reference:

1. [www.efacility.in](http://www.efacility.in)
2. [www.google.co.in](http://www.google.co.in)
3. [www.scribd.com](http://www.scribd.com)

## Result:

Thus, the appendix is successfully created