Requirement Specification

On

FOOD ORDERING SYSTEM

CAP445

MCA (2022-2024)

LOVELY PROFESSIONAL UNIVERSITY
PHAGWARA, PUNJAB

Submitted By:

NAME OF STUDENTS:
Shivam Kumar (12207540)
Irshad (12207587)

Submitted To:

PROFESSOR NAME:
MR.Tarandeep S

Wallia

To whom so ever it may concern

We, **Shivam Kumar (12207540)** and **Irshad (12207587),** hereby declare that the work done by me on "**Food Ordering System**" from **Oct, 2022** to **Nov, 2022**, Lovely professional University, Phagwara, Punjab, is a record of original work for the partial fulfillment of the requirements for the award of the degree, **MCA.**

Shivam Kumar (12207540)
Irshad (12207587)
Dated: **17ᵗʰ nov 2022**

Table of Contents

1.INTRODUCTION

1.1 Purpose and Scope

The purpose of the document is to collect and analyze all assorted ideas that have come up to define the system, its requirements with respect to consumers. Also, we shall predict and sort out how we hope this product will be used in order to gain a better understanding of the project, outline concepts that may be developed later, and document ideas that are being considered, but may be discarded as the product develops.

This project is made for the grounded restaurants, food marts or any hotel purpose where an Admin will be there who will be able to control over the system or manipulate the data within the system and another user is Operator who is able to deal with customer. Operator will use the system to show the menu of the available Food Items, take the order, If user wants to pack that item then go through that process otherwise assign the table and process the whole completion journey. After getting complete order status, table will be set as free and the bill will be generated to the customer.

1.2 Overview

The remaining sections of this document provide a general description, including characteristics of the users of this project, the product's hardware, and the functional and data requirements of the product. General description of the project is discussed in section of this document. It gives the functional requirements, data requirements and constraints and assumptions made while designing the Food Ordering System usen C++. It also gives the user viewpoint of product. It also gives the specific requirements of the product. It also discusses the external interface requirements and gives detailed description of functional requirements. You will get the brief description of some major scenario of the program with some of constraints. You will get some use-case diagram, data flow diagram and class diagram with relation between each other which will help you to better understand this project purpose and the resultant.

1.3 Acronym and abbreviation

Some abbreviation is as follows:

SRS : Software Requirement Specification

FOS : Food Ordering System

DFD : Data Flow Diagram

CUI : Character User Interface

GUI : Graphical User Interface

DBMS: Database Management System

API : Application Programming Interface

2. Functional Requirements

The functional requirements of the Food Ordering System using Cpp can be grouped into following parts.

2.1 Front End

This is data Integration interface with CUI used for getting the data from the Admin or Operator whoever is operating or getting interacted with the system and manipulate it accordingly. It has some different section.

2.1.1 LOGIN

This is the first interaction of the system to the user where Admin or Operator can login to do their work. In this section, there will be two entries first one is the post name and the second one is the password. If the post name gets 'Admin' with the correct password then Admin Dashboard will be shown there, other wise Operator Dashboard will be there where operator can only see the progress or data, he/she cannot change or modify the data from the database or file.

2.1.2 ADMIN DASHBOARD

This is the Admin control panel where Admin can go to the section to do his work according to the given work list. Section list will be as follows:

- OPERATOR
- ITEMS
- ORDERS
- BILL
- TABLE
- HELP
- CHANGE PASS
- EXIT

2.1.2 OPERATOR DASHBOARD

This is the Operator control panel where Operator can see the list of the work and he/she can do his work according to the given work list. List will be as follows:

- CREATE ORDER
- ORDER STATUS
- CREATE BILL
- HELP
- CHANGE PASS
- EXIT

2.1.2 LIST VIEW

This section is used to show the list of some options to the user and getting some input which will let the system into the further process. For example Admin and Operator work list, List of food items which will be produced by the operator to the customer to choose the items from the list.

2.2 Modules

This is the independent part of the whole system which can be developed or handled individually. Following are the modules of this entire system.

2.2.1 LOGIN

In this module every login related work will be done. Admin or Operator name, character length, password length or other validation and verification will be there. Every login will get cross check that the user is Admin or Operator. After than the password will be verified then the Dashboard will appear according to the logged in user.

2.2.2 ORDER

In this module every order related work will be covered. Where menu showing, item selection, table assigning will be processed and apart from this admin and operator can also see the order details of pending status. Admin can also see the all list of the order status which is pending or completed.

2.2.3 ITEM

In this module every item related work can be covered. Where new item can be added from the admin or even he can modify the price or name or quantity of the item. Operator can not be able to see the items directly but it will be visible during the order creation.

2.2.4 BILL

In this module every bill related work can be covered. It will include bill creation and show the list of the bill according to the date.

2.2.5 OPERATOR

In this module Operator related work can be covered. It includes new operator creation with their password or previous operator removal work. These works can be done by this module.

2.2.5 TABLE

From this module Admin will be able to add or remove the table with its properties. Operator can also access this module to assign the specific table to the customer.

2.3 FEATURES

2.3.1 TAKE ORDERS

The system should be able to take orders from the coming customers this is the most valuable feature of this system. This feature will allow to the operator to show the menu to the customer and take the selection from them then with few details of the customer the operator will assign a table and process the rest part. If order gets completed then the order status will be assign as completed.

2.3.2 GENERATE BILLS

After order completion there will be a feature in this system that a bill is

generated with amount and served to the customer and after successful payment that bill will be sent to the database. And this feature will add another process that admin can see the bill according to the given date or see all at a time.

2.3.3 MANAGE ITEMS AND OPERATOR

This system will be able to show, add, delete or modify the item list which will be served to the customer by the operator. There will be also a feature that operator can also be added or removed by the admin as per the need.

2.4 Backend

2.4.1 CLASSES AND OBJECTS

This is very important part of this system where the data will be stored in DBMS or files in the form of objects and the processes related that data will be accessed through the declared classes' functions. The data will be manipulated in the form of objects and classes.

2.4.2 FILES

This the actual DBMS like concept to store the data which will be taken from the front end. There will be some techniques which is as similar to the API where data will be manipulated within some criteria and restriction. These files area responsible to store and manipulate the data. And whenever we need that data we will tell to that file with some technique to show or give some data to us.

3. NON-FUNCTIONAL REQUIREMENTS

3.1 RESOURCES

This is very important that the files which will contain that all data and the sufficient memory will be there for the better performance of the system or program.

3.2 Security

The system will verify the password with its constraints, if matches than it allows that user to operate the system. The major security is that admin is only responsible to manipulate the stored data or see that confidential data according to the need but Operator have some restriction that he/she cannot be able to see the all data at a time. He/she will generate the order and bill only.

3.3 Supportability

Compatible with Operating Systems

- Windows Compatible
- Compatible with Files with extension .dat

System Requirements

- 1024 MB RAM or more 1000 MHz processor or better
- 1 GB disk space

3.4 Design Constraints

This will not contain any event based program so user should depend only on the keyboard having good skill of typing and A general knowledge of basic computer skills is required to use the product.

4. CONSTRAINTS

There are some constraints where Admin and customer's accessibility will be limited. That are follows:

- User post section will contain only two words that is 'Admin' or 'Operator'.
- Password will contain at least 4 characters.
- Admin or Operator cannot do his job apart from the given options.
- Admin will see the list of Order, Bill, sold item but it cannot be modified by either Admin or Operator.
- Admin cannot be able to remove himself only the password can be changed.
- Operator can be removed by the Admin but operator can only change his/her password.

5. ASSUMPTIONS

SOFTWARE
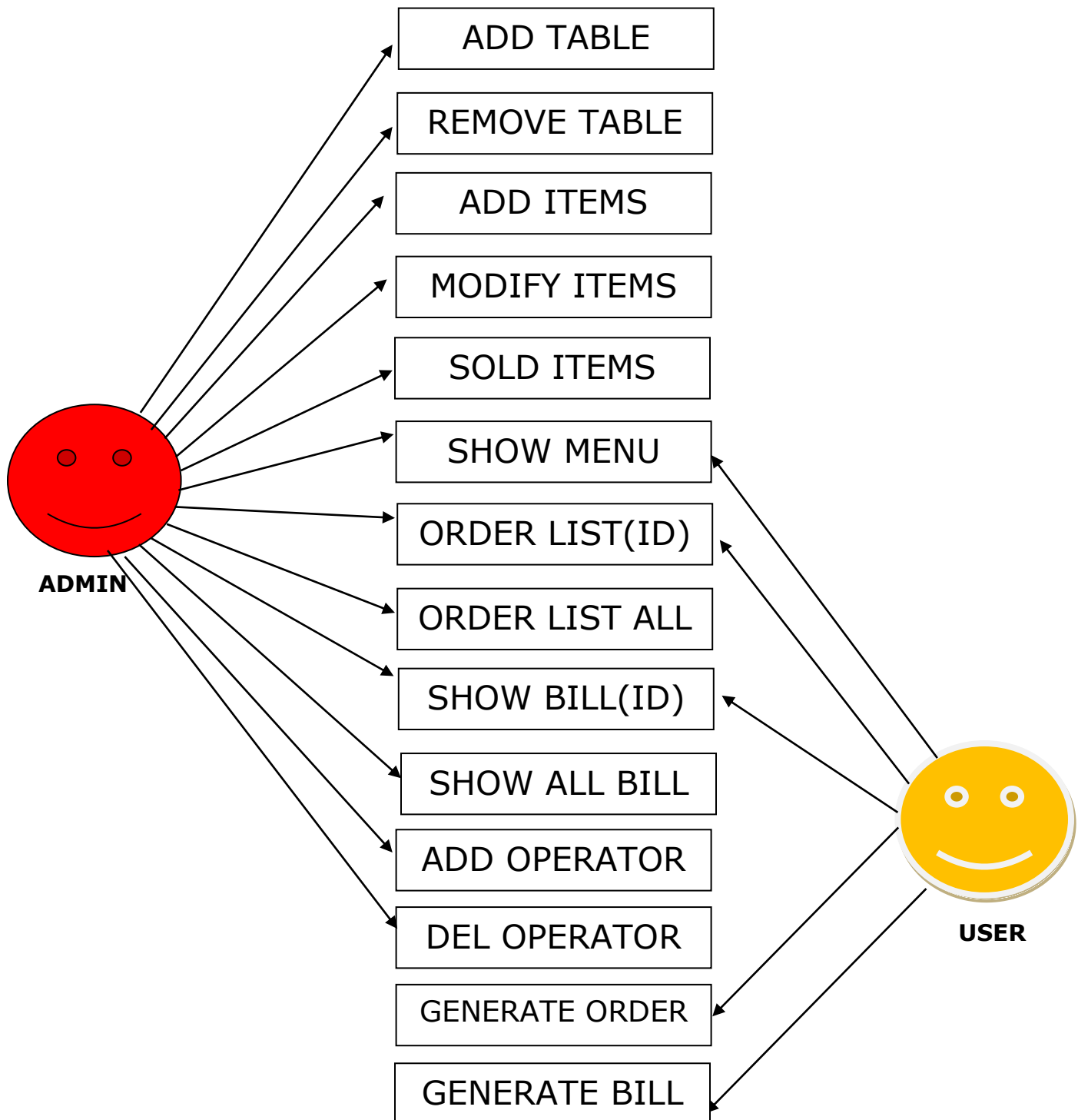
- C++
- GCC Compiler
- Window operator system

HARDWARE
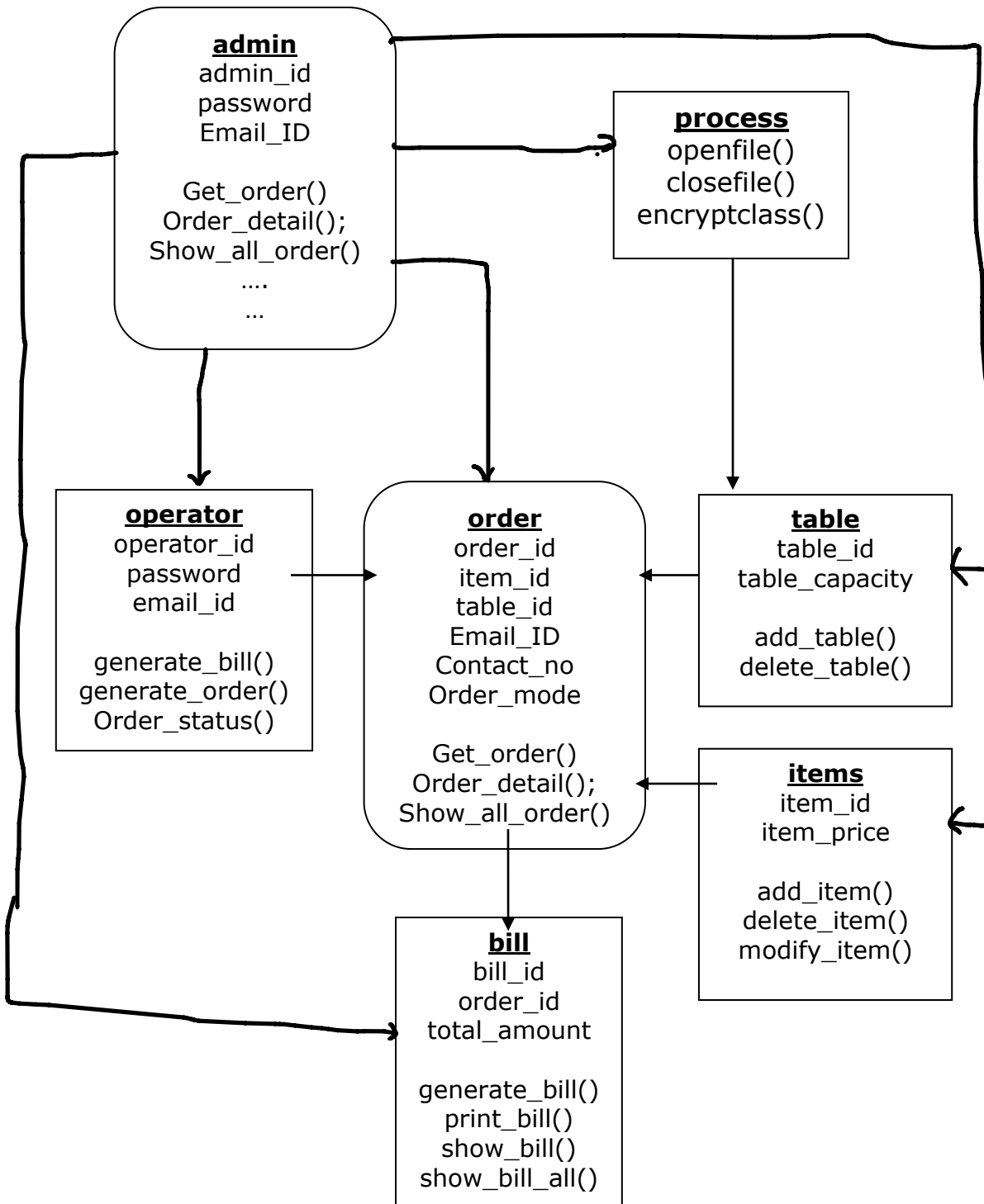
- 1024 MB RAM or more 1000 MHz processor or better
- 1 GB disk space

6. ANALYSIS MODELS
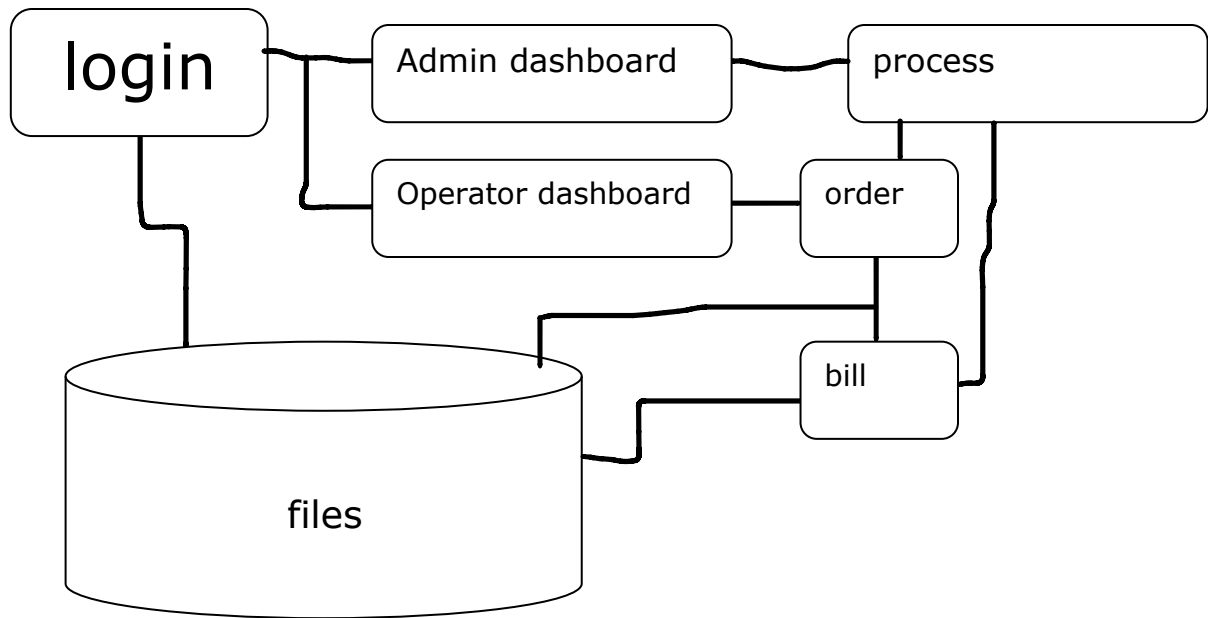
4.1 Overall Use Case Diagram

ADD TABLE

REMOVE TABLE

ADD ITEMS

MODIFY ITEMS

SOLD ITEMS

SHOW MENU

ORDER LIST(ID)

ORDER LIST ALL

SHOW BILL(ID)

SHOW ALL BILL

ADD OPERATOR

DEL OPERATOR

GENERATE ORDER

GENERATE BILL

ADMIN

USER

4.2 Class Diagram

admin
admin_id
password
Email_ID

Get_order()
Order_detail();
Show_all_order()
….
…

process
openfile()
closefile()
encryptclass()

operator
operator_id
password
email_id

generate_bill()
generate_order()
Order_status()

order
order_id
item_id
table_id
Email_ID
Contact_no
Order_mode

Get_order()
Order_detail();
Show_all_order()

table
table_id
table_capacity

add_table()
delete_table()

items
item_id
item_price

add_item()
delete_item()
modify_item()

bill
bill_id
order_id
total_amount

generate_bill()
print_bill()
show_bill()
show_bill_all()

4.2 Data flow Diagram

.

```
login    Admin dashboard    process

         Operator dashboard    order

                              bill

files
```

5. Reference and bibliography

- [How to write a good SRS for your Project - GeeksforGeeks](#)

- [https://tutorialspoint.dev/computer-science/software-engineering/software-engineering-quality-characteristics-of-a-good-srs](#)

- Our faculty   : Dr Tarandeep Singh wallia

- MCA 2nd year Students