RESTAURANT MANAGEMENT SYSTEM

A Project Report submitted for partial fulfillment of the requirements for the 2nd sem of

Masters of Computer Application (MCA)of

JORHAT ENGINEERING COLLEGE

UNDER ASSAM SCIENCE AND TECHNOLOGY UNIVERSITY

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MCA 2nd Semester

Jorhat Engineering College, Assam

Under the guidance of

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DEPARTMENT OF :

COMPUTER APPLICATION JORHAT

ENGINEERING COLLEGEJORHAT, ASSAM

CERTIFICATE

This is to certify that the project entitled "**RESTAURANT MANAGEMENT SYSTEM**" submitted by **BIRAJ KHOUND** (Roll No. 210720043009), **JOSHNA BORO** (Roll No. 210720043015) in partial fulfilment of requirements for the **2nd Semester** project of **Masters of Computer Application (MCA)** of **Jorhat Engineering College**, under **Assam Science and Technology University** has been examined.

Signature of the guide

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Signature of the HOD

(Dr. Rupam Baruah)

Principal of

Jorhat Engineering College, Jorhat

ACKNOWLEDGEMENT

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We also take this opportunity to express a deep sense of gratitude to Principal sir **Dr. Rupam Baruah** for his cordial support, valuable information and guidance which helped us incompleting this task through various stages.

Lastly, we thank the almighty, our parents and our classmates for their constant encouragement without which this project would not have been possible.

Place: - Jorhat

Date: - 12-07-2022

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MCA (2nd Semester)

Jorhat Engineering College, Assam

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ABSTRACT

Restaurant management systems are integral part of a Restaurant that concerns with proper maintenance and management of a restaurant. This is a task of utmost importance, as it impacts the Restaurant in many ways. Thus the need of designing a good restaurant management system, which transcends the overall expectation from the system and satisfy the requirement is highly commendable. We have designed the restaurant management system where the admin can add, update or delete any items at any time by themselves. The restaurant management system manages the order related information and keeps a record of orders and also store the record of already completed orders along with the customer details. Apart from this, the system is designed in way where they can give discount to customers. SGST and CGST is also added for Tax. A receipt generation system is also added so that they can view or print the receipt. The system is designed using PHP and MYSQL server, and the overall performance of the system is satisfactory with respect to the requirements and working.

Keywords: Restaurant Management, itmes, Discount,Receipt,
PHP, MySql.

INTRODUCTION

A restaurant management system takes into account the records and related work of the available orders in the restaurant. Restaurant Management System is a system designed to track, store and manage items and order data and all kind of information related to the restaurant. The comprehensive data that includes – item information, order details, discount details, etc can be maintained in a systematic & error-free way.

The traditional approach for restaurant management system considers the pen and paper based approach with manual labour. A restaurant considers maintaining a Register Copy that keeps the record of order and manages order. However, the whole system is insecure and prone to human errors. There could be errors in putting down entries. Since it is the manual system, notifying the user as well as keepingthe depleting amount of order is also a tiresome job. To do all these in a computerized system is much more effective and efficient for an organization.

Restaurant Management System is a computerized system of traditional paper based medicine recording system. It helps in keeping track of orders. Administration of the restaurant management system store all the records related to the orders which includes add items, update items, delete items, discount details, sgst and cgst details, total amount, total payable amount calculator, generate receipt etc. in a systematic manner so that later they get the information of these stored record in a short span of time.

AIM AND OBJECTIVE

Aim:

To develop a web application for restaurant management system that handles the daily activities of orders and orders related information including receipt generation through the system and provides discount features of different items. The purpose of the project is to build a system to reduce the manual work for managing the restaurant.

Objectives:

- The main objective for the project is to handle the entire activities of restaurant management system in an efficient way.
- To provide security to a restaurant's data as only authorized user is allowed to access the data.
- To help the administrator of the restaurant to manage the restaurant more effectively and in a well-organized manner.
- To facilitate receipt generation by the system that reduces the workload to a great extent.
- The system contains a discount feature where the owner can give discount to customers.
- It contains SGST and CGST also.
- The system also contains a database where all the data are stored safely.
- This project provides a lot of features to manage in very well manner.
- The system has a good appearance and is very easy to operate. It is very simple, easy to access and it saves our time.

FEASIBILITY STUDY

It is necessary and prudent to evaluate the feasibility of a project at the earliest possible time. There may be different ways of checking whether a system is feasible or not. The following feasibility studies were performed to gauge the feasibility of the system.

➢ OPERATIONAL FEASIBILITY

In this test, the operational scope of the system is checked. The system under consideration should have enough operational reach. It is observed that the proposed system is very user friendly and since the system is built with enough help, even persons with little knowledge of websites can find the system very easy.

➢ TECHNICAL FEASIBILITY

This test includes a study of function, performance and constraints that may affect the ability to achieve an acceptable system. This test begins with an assessment of the technical viability of the proposed system. The management provides latest hardware and software facilities for the successful use of the system. With these latest hardware and software support the system will perform extremely well. The system is available through Internet.

➢ ECONOMIC FEASIBILITY

The development cost of the system is evaluated weighing it against the ultimate benefit derived from the new system. It is found that the benefit, from the new system would be more than the cost and time involved in its development. Intangible cost and benefits:-

- Easy to use, simple and user friendly
- Less usage of papers
- Save allowance for losing and buying tools and equipment.

REQUIREMENTS GATHERING AND ANALYSIS

We set our first set of context-free questions that focuses on the users' requirements, overall project goals and benefits. The questions are:

1. How long will the project timeline be?
2. Who will be using the project outcomes?
3. Who will make the decision about the project?
4. Who will provide the resources to fulfil the project?
5. Whose work will affect the project?

These questions helped us to identify the measurable benefit of the successful implementation and possible alternatives to develop the application.

We finalized the following requirements for the system by categorizing and prioritizing the requirements:

1. Web-based application for user.
2. Accessible via the internet.
3. Allow user to login, manage the system and logout.
4. Maintain a database for the service.

Requirements to develop the website:

1. Processor: Intel Pentium (1.2GHz or above).
2. Internal Storage: - 40GB or above.
3. RAM: 1 GB or above.

Requirements to run the website:

1. Any computer or mobile device
2. An internet connection.
3. Operating System: Windows 7 or above.
4. An Internet Browser (Google Chrome is preferable.

SYSTEM STUDY

The proposed system is implemented to replace the manual system involving a lot of paperwork.

- **Existing system:** The existing system is more prone to human error in terms of assigning mistake. The paper-based system is more prone to human error with data throughout the manual system. Often information is incomplete, or does not follow management standards. Records are often lost in transit requiring a comprehensive auditing process to ensure that no vital information is lost. Also, there is the probability of calculation errors during adding and selling medicine process.

- **Proposed system:** The Restaurant Management System is designed to replace the existing manual paper-based system. The new system is to control the following information:records of items,item add, item update, item delete, table details, orders details and generate receipts etc. These services are to be provided in an efficient, effective manner, with the goal of reducing the time and resources currently requiredfor such tasks. The proposed system is fully responsive so the user is able to use it in any devices such as laptops or mobile.

SYSTEM IMPLEMENTAION

Tools/Technologies and Languages used for development:

Language used	Software used
1. HTML 2. CSS 3. PHP 4. Bootstrap 5. SQL	1. Visual Studio Code 2. XAMPP server 3. MySQL database

System requirements:

The hardware required for this software is a personal computer (desktop or laptop) with the minimum hardware configuration given below:

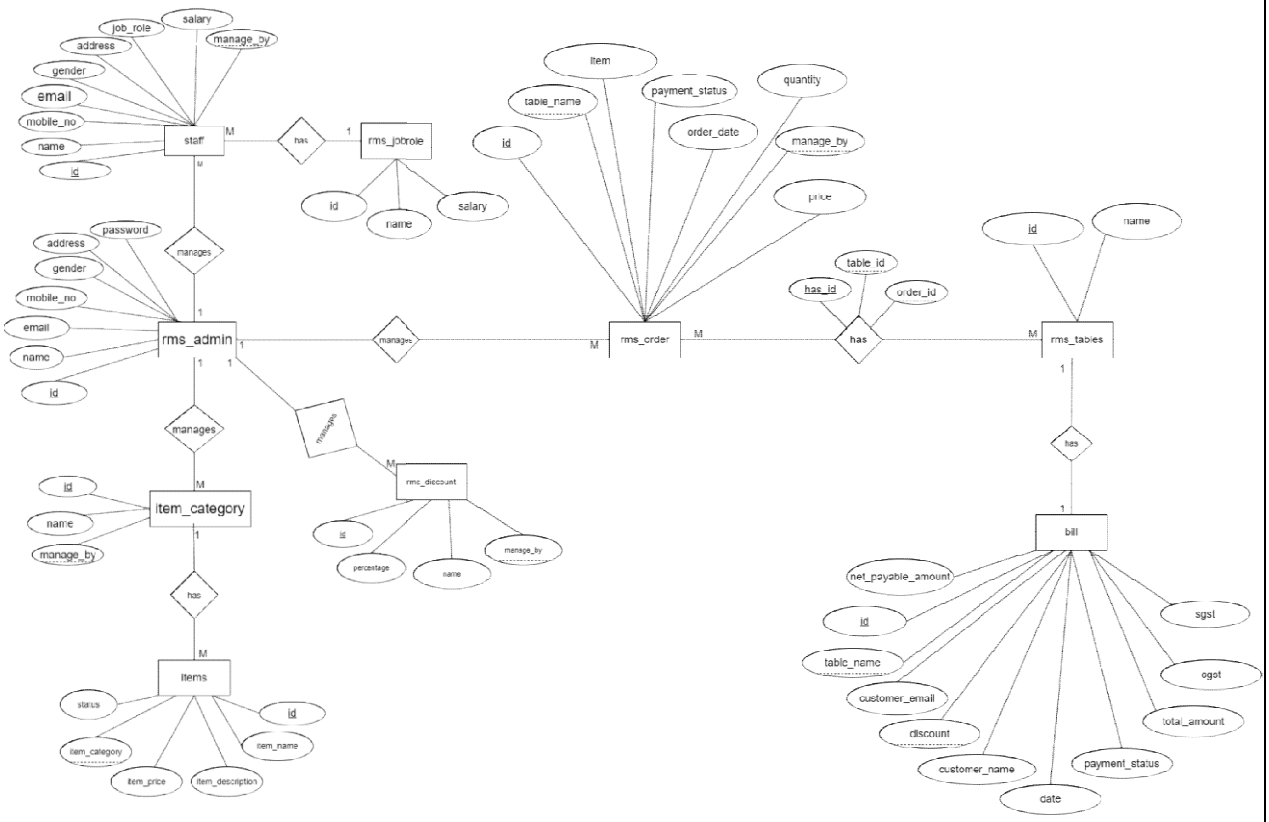
- Operating system: Windows (7/8/10), Linux (all current major distributions)
- Processor: Intel Pentium
- Browser: Any Chromium-based browser (Google Chrome, Microsoft Edge, etc.)
- RAM: 1GB

MODULE DESCRIPTION

As this is a one user system so after the user logs in, the user will find a dashboards that includes: a side menu bar mentioned with 'Dashboard', Profile, ‘Staff’, ‘Job role’, ‘Category’, ‘Items’, ‘Table’, ‘Orders’, ‘Bill’. Also in the top nav-bar user will find a view Dropdown Logout options, etc.

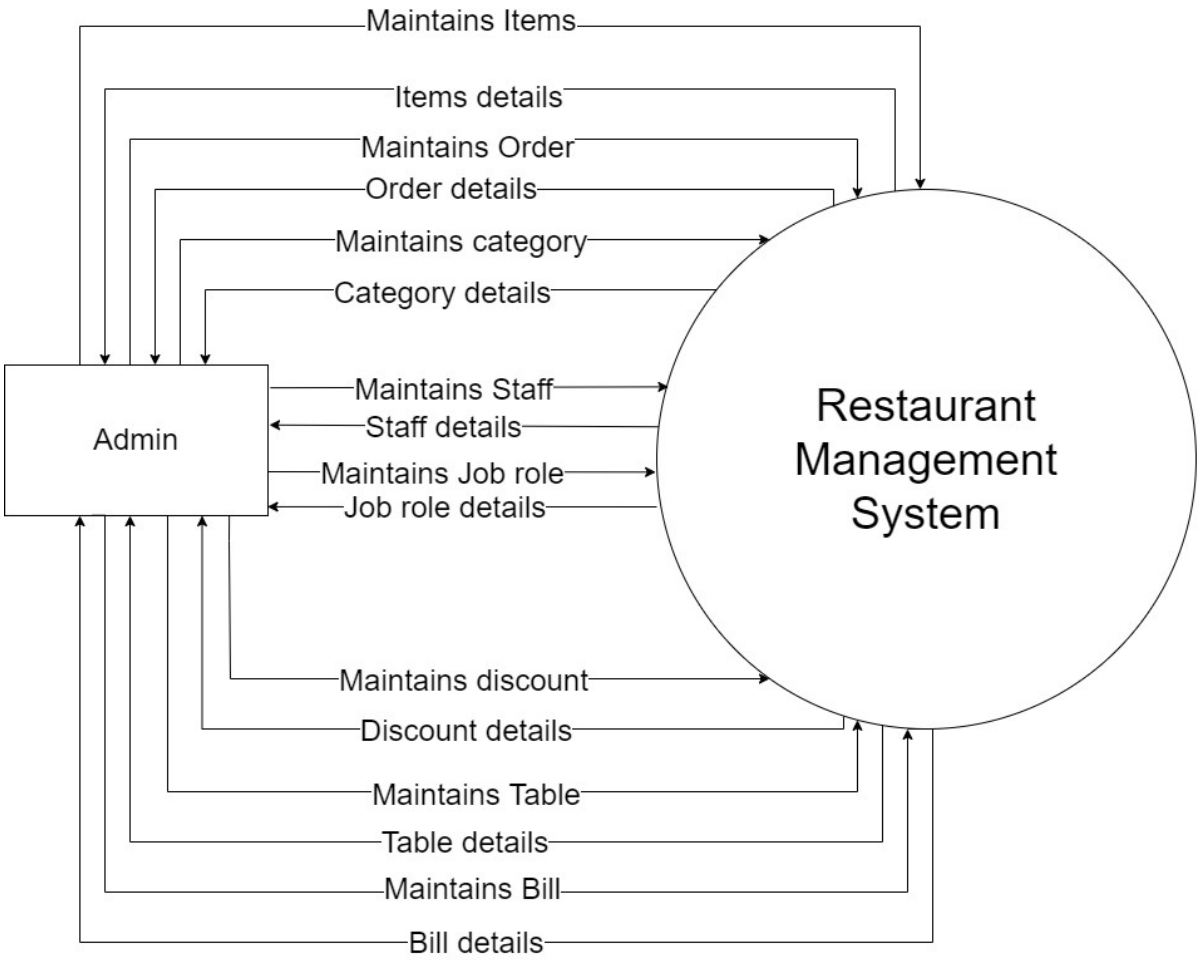
- **Login:** The 'Login' facility is added for user authentication purpose. It helps to verify the credentials of an authorized user.
- **Profile:** Here user can view their own details and can edit them if required.
- **Dashboard:** This is the first layout the user interacts with after his/her login is completed. This page gives overall management activity of the system that includes various records.
- **Staff:** Using this tab the user can add, update & delete Staff information and view the records of it.
- **Job Role:** Using this tab user can add, update & delete the Job Role records of various Post and view the records of it.
- **Category:** Using this tab the user can add, update & delete Category information and can view the details**.**
- **Items:** Using this tab the user can add, update & delete Items information and can view the details**.**
- **Table:** Using this tab the user can add, update & delete Table information and can view the details.
- **Orders:** Using this tab the user/admin can add orders with the table no and manage the orders.
- **Bill:** Using this tab the user/admin can generate and print the bill and add any discount as per their wish.
- **Logout:** On clicking this button the user who is currently logged in will be removed from the current login session and will be redirected to the login page.

ER-Diagram for Restaurant Management System



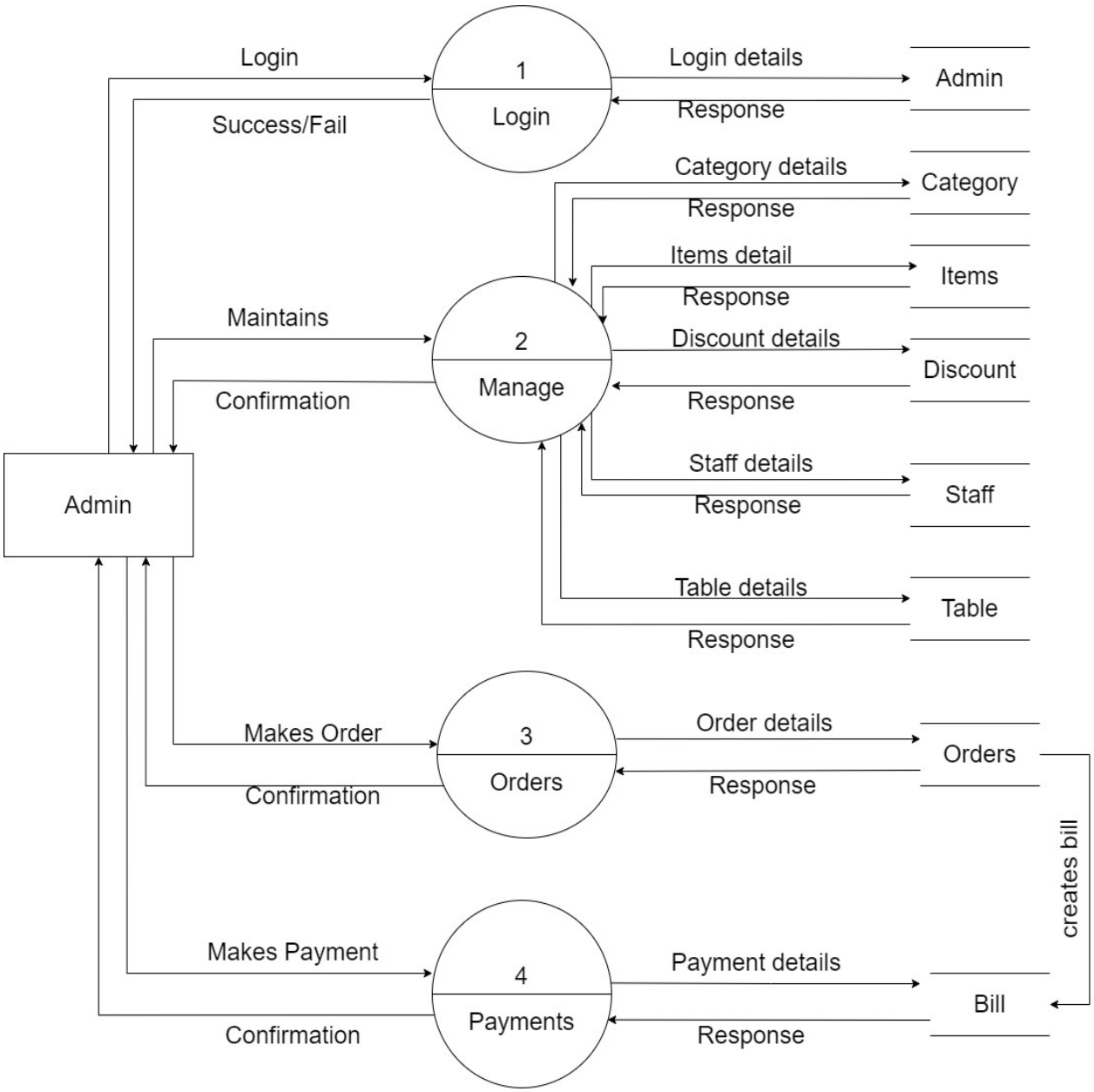
DATA FLOW DIAGRAM (DFD)

- **LEVEL 0 DFD (CONTEXT LEVEL DIAGRAM):**

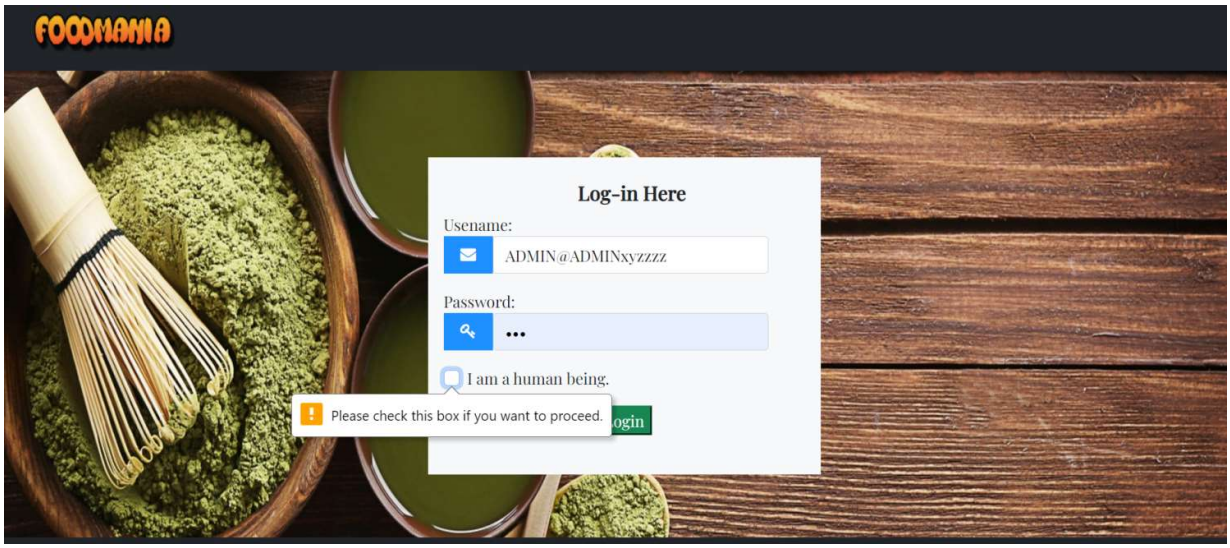


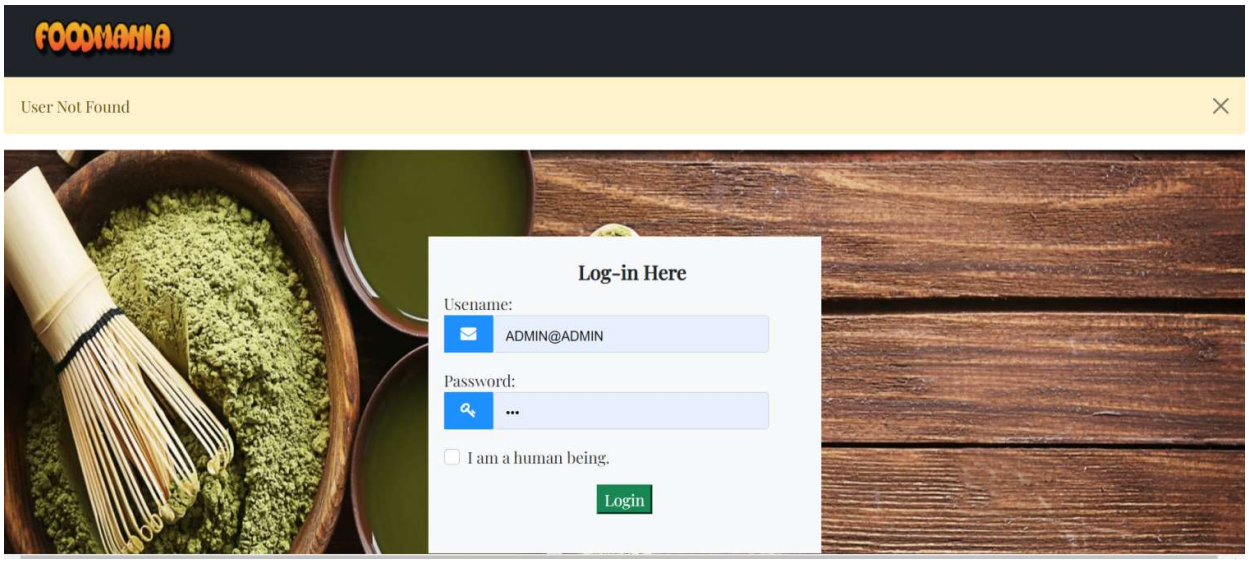
DATA FLOW DIAGRAM (DFD)

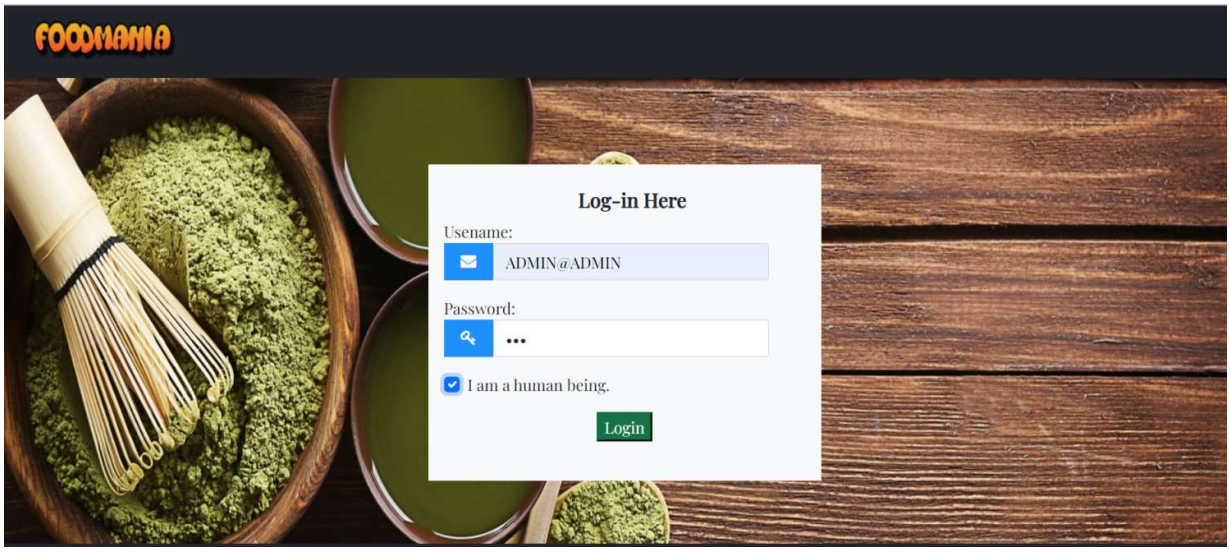
- **LEVEL 1 DFD :**

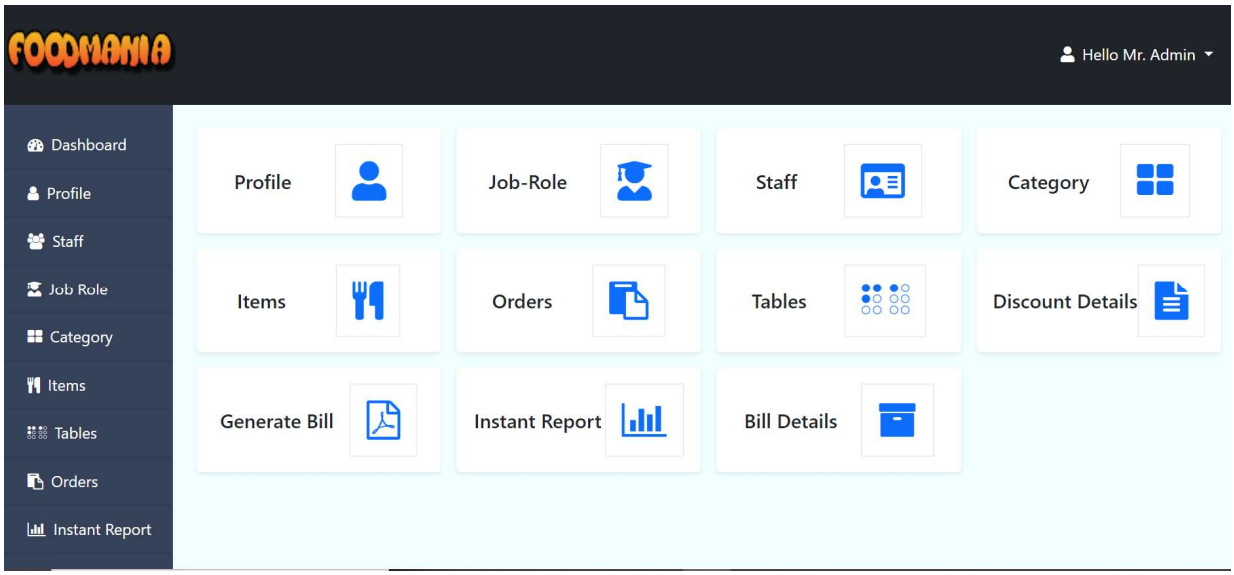


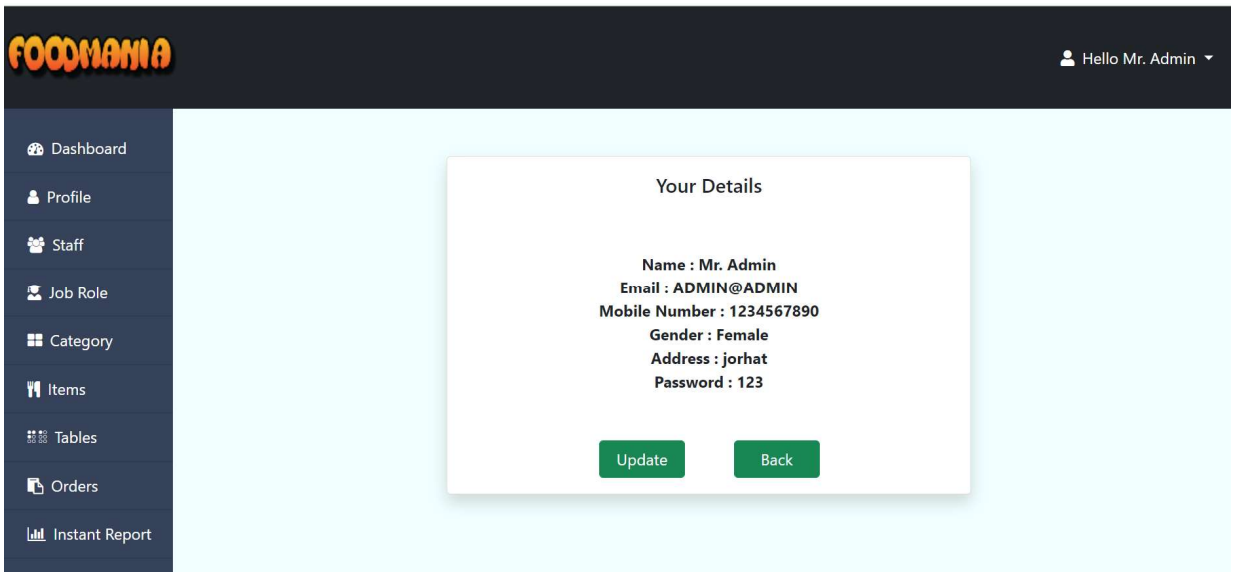
SNAPSHOT

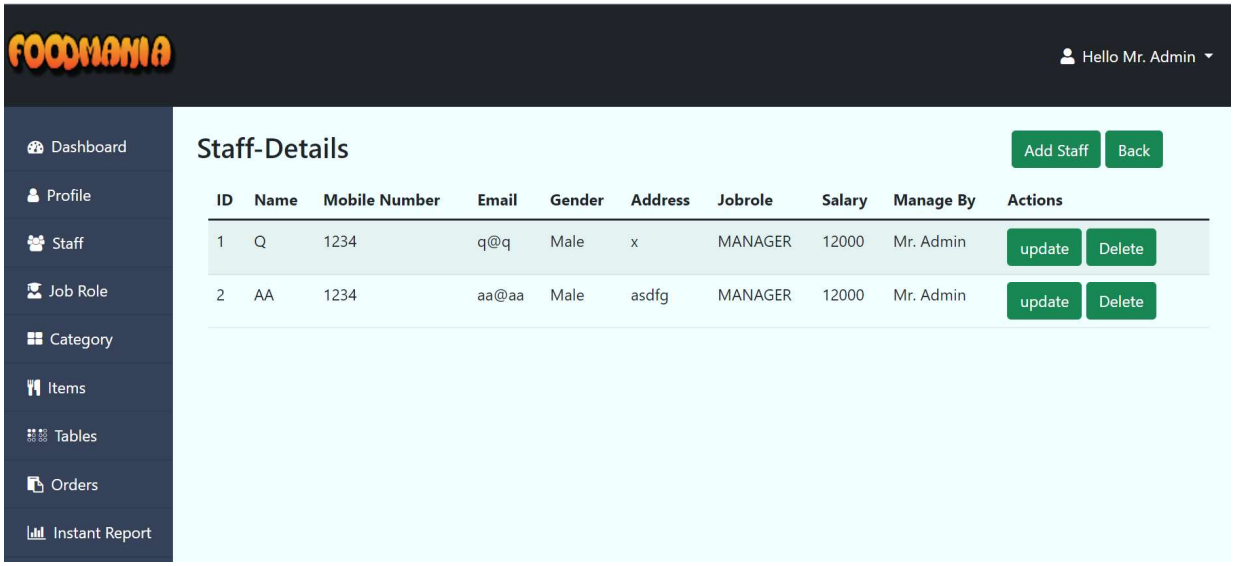

FOODMANIA
Log-in Here
Usename:
ADMIN@ADMINxyzzzz
Password:
I am a human being.
Please check this box if you want to proceed.
ogin

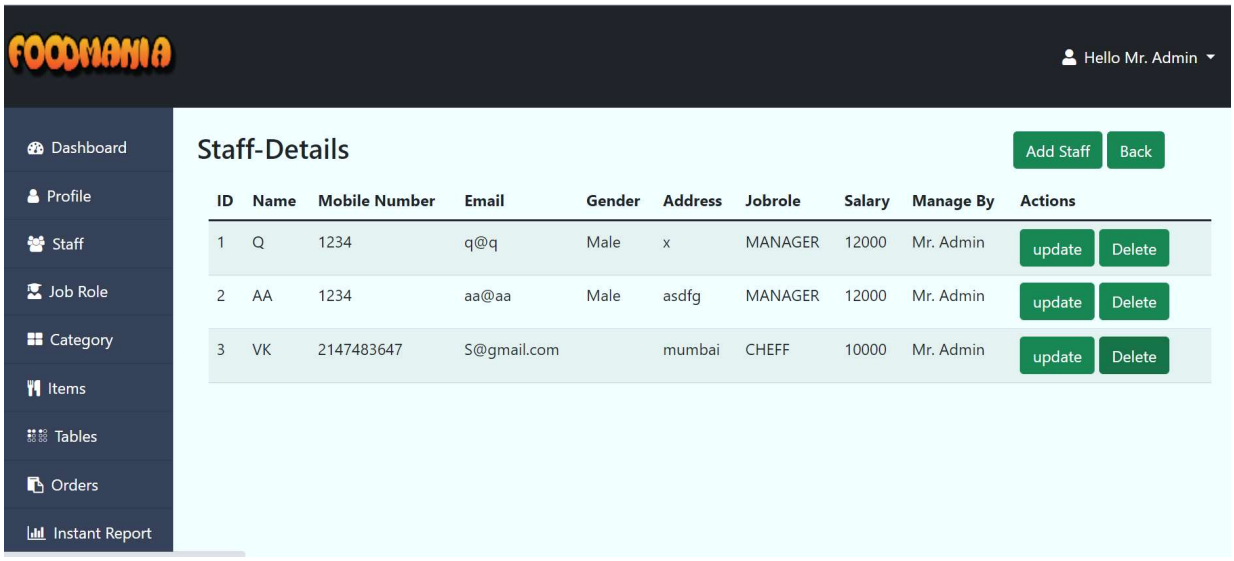

FOODMANIA
User Not Found
Log-in Here
Usename:
ADMIN@ADMIN
Password:
I am a human being.
Login

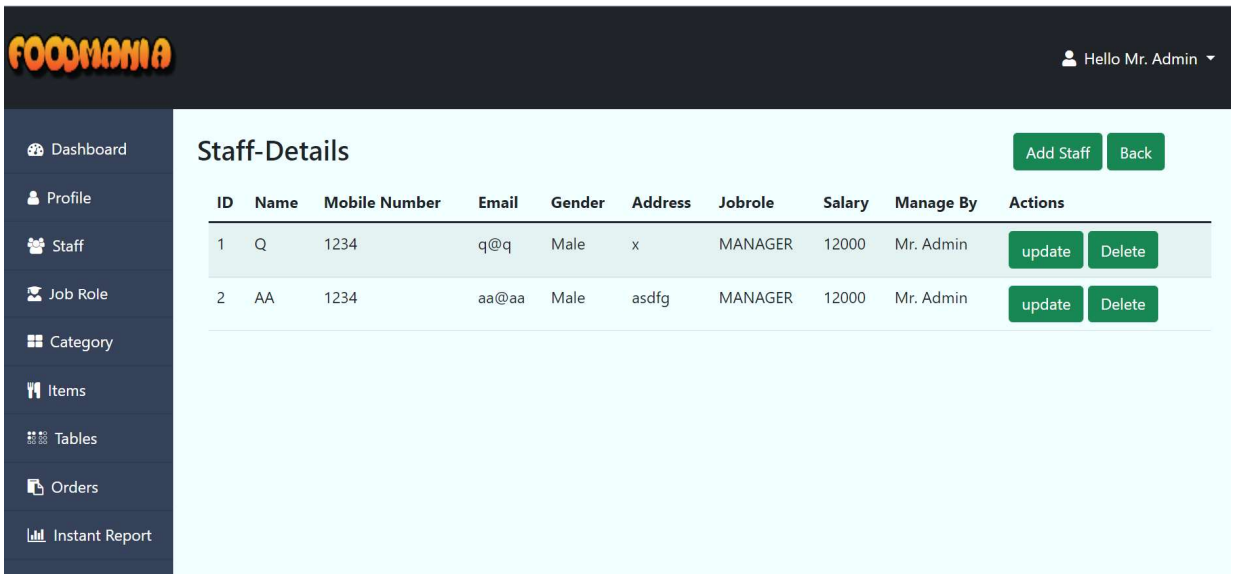

FOODMANIA
Log-in Here
Usename:
ADMIN@ADMIN
Password:
I am a human being.
Login

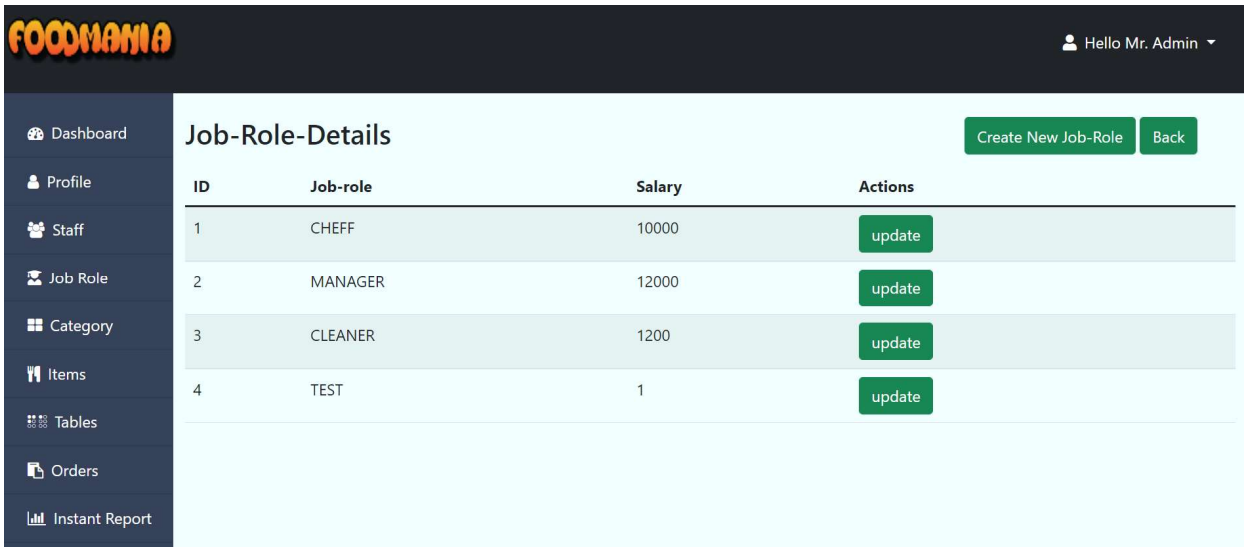

FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Profile
Job-Role
Staff
Category
Items
Orders
Tables
Discount Details
Generate Bill
Instant Report
Bill Details

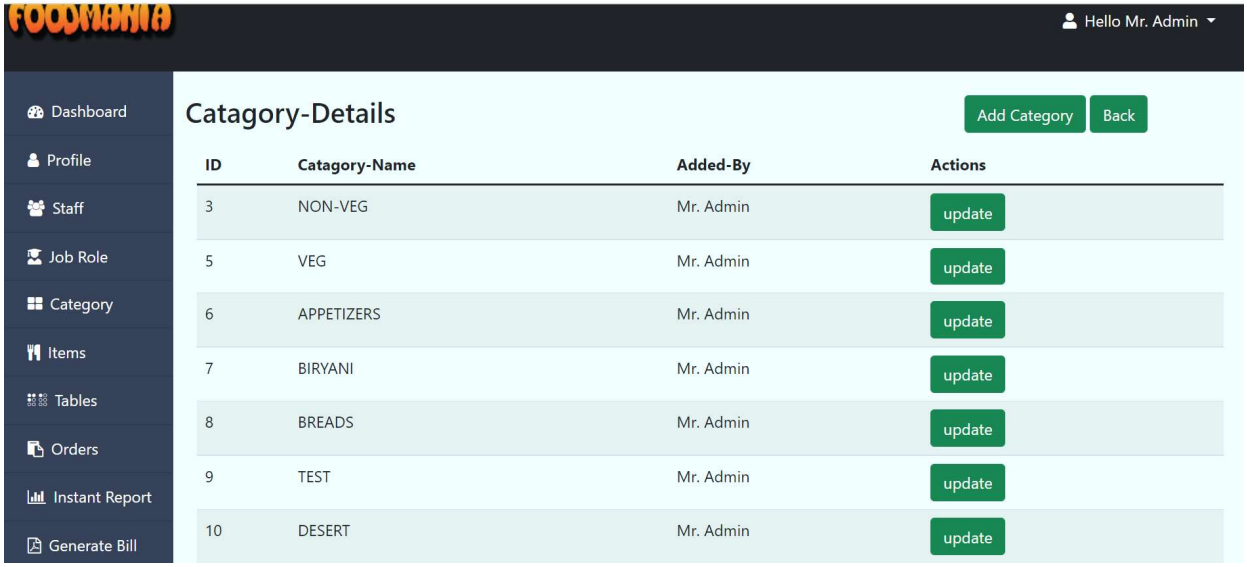

FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Your Details
Name : Mr. Admin
Email : ADMIN@ADMIN
Mobile Number : 1234567890
Gender : Female
Address : jorhat
Password : 123
Update
Back

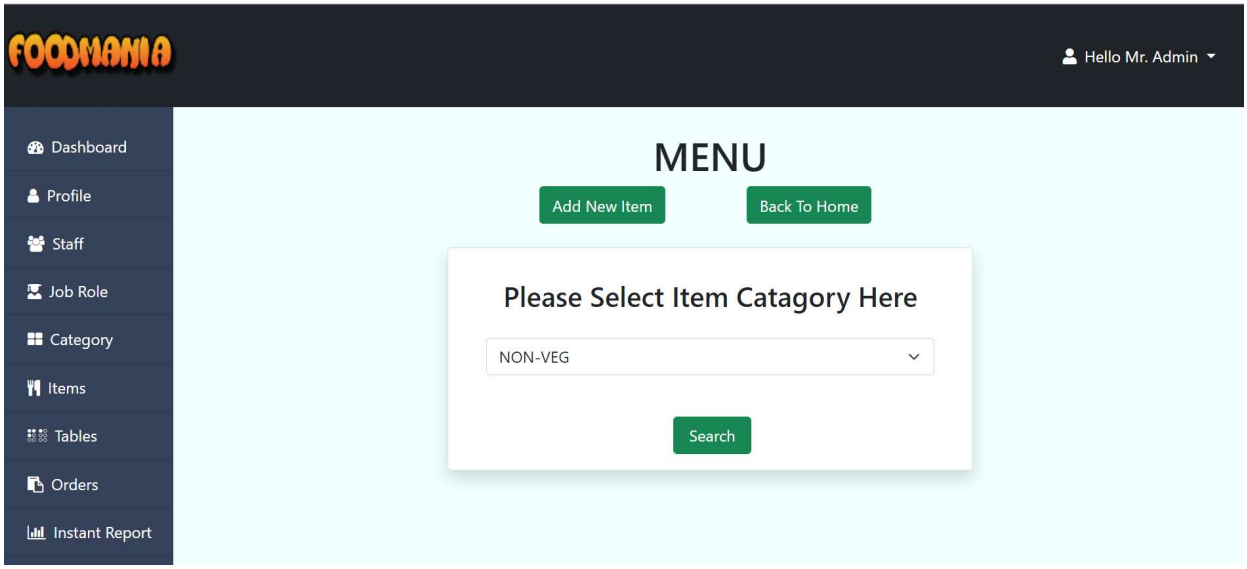

FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Staff-Details
Add Staff
Back
ID Name Mobile Number Email Gender Address Jobrole Salary Manage By Actions
1 Q 1234 q@q Male x MANAGER 12000 Mr. Admin update Delete
2 AA 1234 aa@aa Male asdfg MANAGER 12000 Mr. Admin update Delete

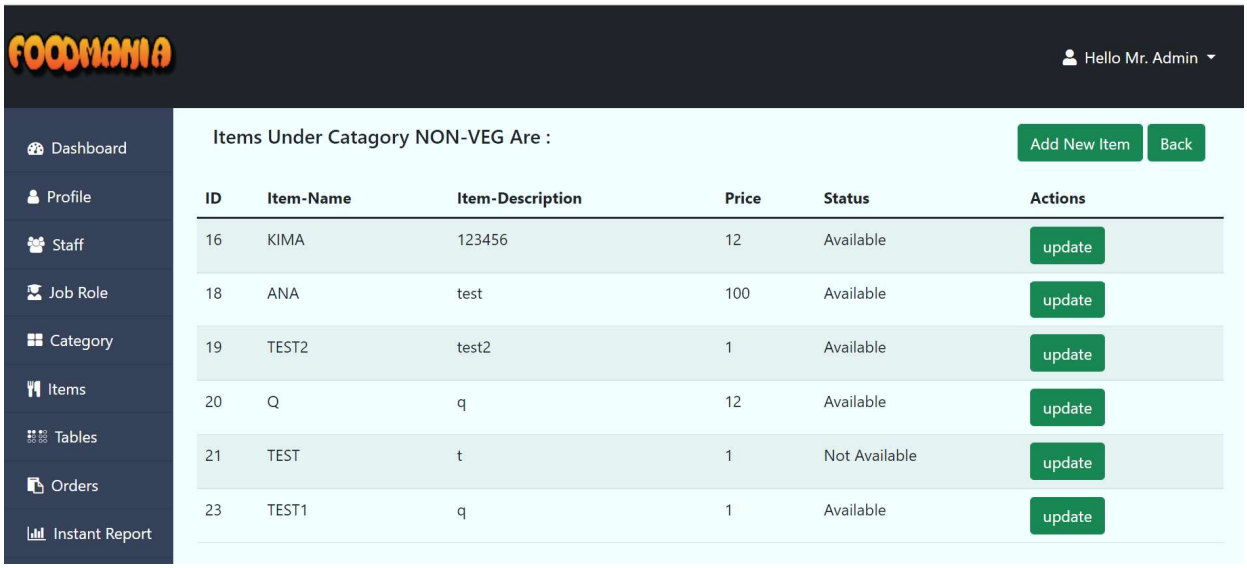

FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Staff-Details
Add Staff
Back
ID Name Mobile Number Email Gender Address Jobrole Salary Manage By Actions
1 Q 1234 q@q Male x MANAGER 12000 Mr. Admin update Delete
2 AA 1234 aa@aa Male asdfg MANAGER 12000 Mr. Admin update Delete
3 VK 2147483647 S@gmail.com mumbai CHEFF 10000 Mr. Admin update Delete


FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Staff-Details
Add Staff
Back
ID Name Mobile Number Email Gender Address Jobrole Salary Manage By Actions
1 Q 1234 q@q Male x MANAGER 12000 Mr. Admin update Delete
2 AA 1234 aa@aa Male asdfg MANAGER 12000 Mr. Admin update Delete

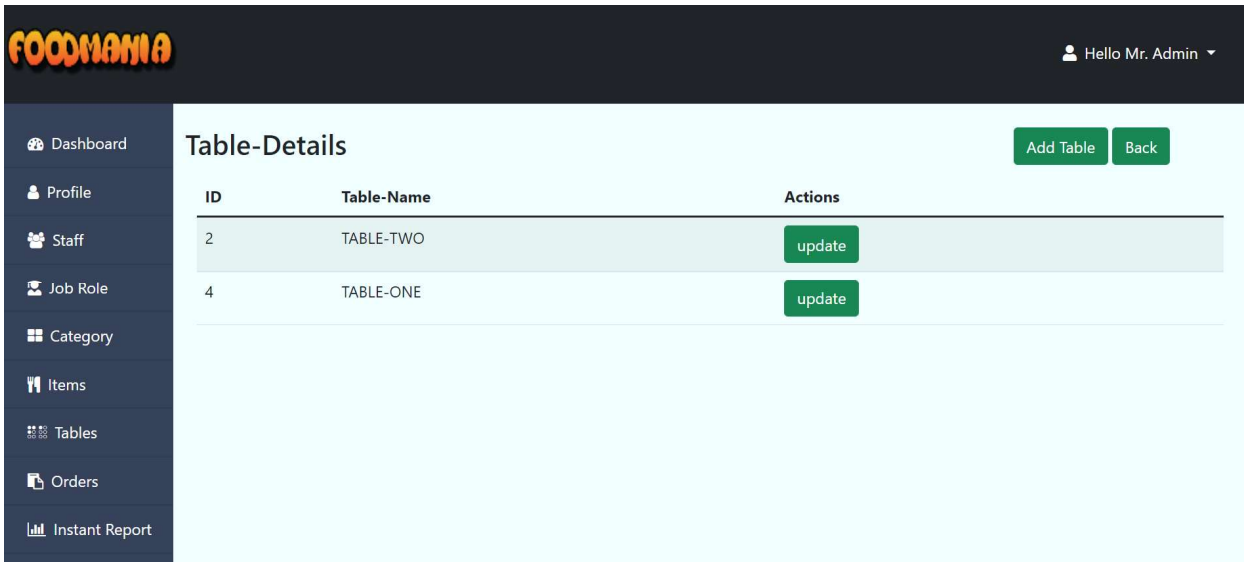

FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Job-Role-Details
Create New Job-Role
Back
ID Job-role Salary Actions
1 CHEFF 10000 update
2 MANAGER 12000 update
3 CLEANER 1200 update
4 TEST 1 update

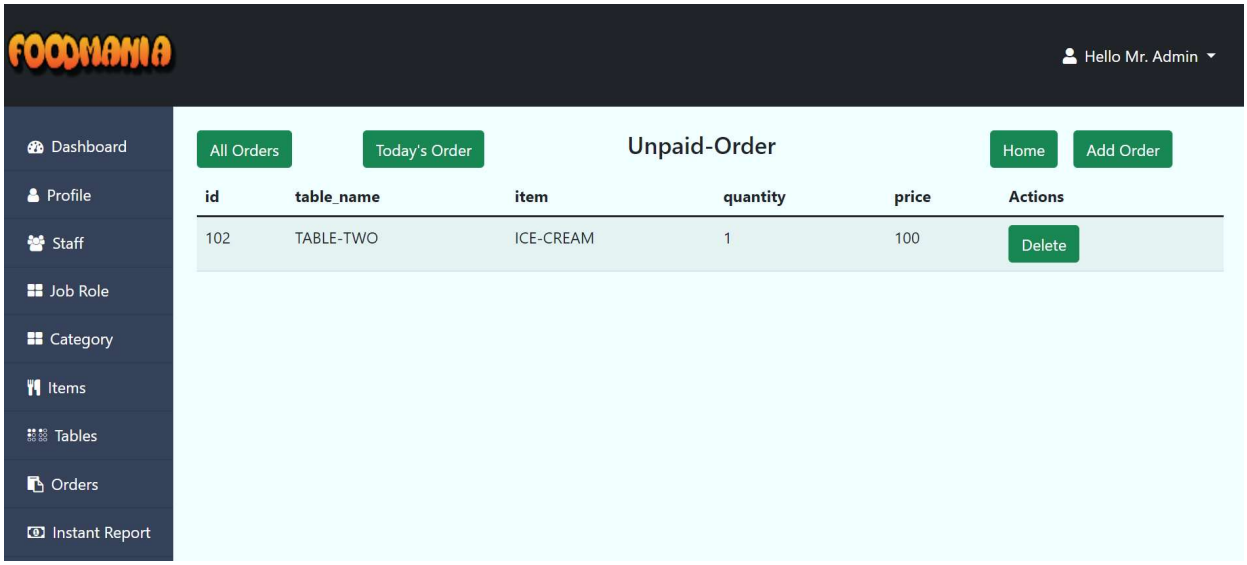

FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Generate Bill
Catagory-Details
Add Category
Back
ID
Catagory-Name
Added-By
Actions
3 NON-VEG Mr. Admin update
5 VEG Mr. Admin update
6 APPETIZERS Mr. Admin update
7 BIRYANI Mr. Admin update
8 BREADS Mr. Admin update
9 TEST Mr. Admin update
10 DESERT Mr. Admin update


FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
MENU
Add New Item
Back To Home
Please Select Item Catagory Here
NON-VEG
Search


FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Items Under Catagory NON-VEG Are :
Add New Item
Back
ID
Item-Name
Item-Description
Price
Status
Actions
16 KIMA 123456 12 Available update
18 ANA test 100 Available update
19 TEST2 test2 1 Available update
20 Q q 12 Available update
21 TEST t 1 Not Available update
23 TEST1 q 1 Available update

FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Add Item
Item Name:
Enter name
Item Description:
Enter description
Price:
Enter price
Status:
Available
Save
Back


FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Table-Details
Add Table
Back
ID
Table-Name
Actions
2
TABLE-TWO
update
4
TABLE-ONE
update


FOODMANIA
Hello Mr. Admin
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
All Orders
Today's Order
Unpaid-Order
Home
Add Order
id
table_name
item
quantity
price
Actions
102
TABLE-TWO
ICE-CREAM
1
100
Delete

FOODMANIA

Hello Mr. Admin

Today's Order

Back

id	table_name	item	quantity	price	order-date	payment-status
101	TABLE-ONE	KIMA	1	12	2022-07-11	PAID
102	TABLE-TWO	ICE-CREAM	1	100	2022-07-11	UNPAID

FOODMANIA

Hello Mr. Admin

Order-Details

Back

id	table_name	item	quantity	price	order-date	payment-status
16	TABLE-TWO	KIMA	1	12	2006-07-22	PAID
17	TABLE-TWO	CHAAT PAPDI	1	150	2006-07-22	PAID
18	TABLE-ONE	KIMA	1	12	2006-07-22	PAID
19	TABLE-ONE	K	1	1	2006-07-22	PAID
20	TABLE-TWO	PANEER TIKKA	1	200	2006-07-22	PAID
21	TABLE-TWO	PANEER TIKKA	1	200	2006-07-22	PAID
22	TABLE-ONE	KIMA	1	12	2006-07-22	PAID
23	TABLE-ONE	PANEER TIKKA	1	200	2006-07-22	PAID
24	TABLE-TWO	CHAAT PAPDI	1	150	2006-07-22	PAID

FOODMANIA

Hello Mr. Admin

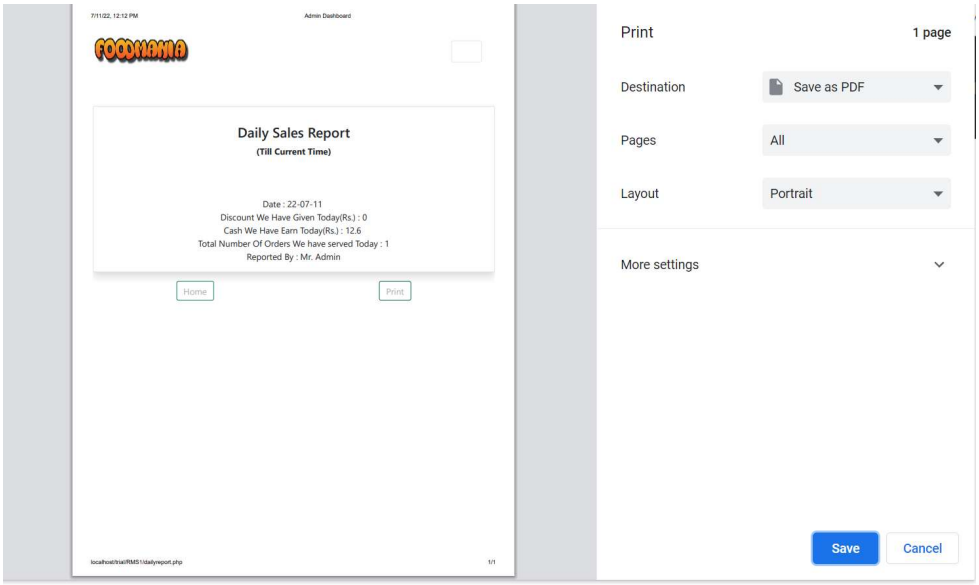
Daily Sales Report

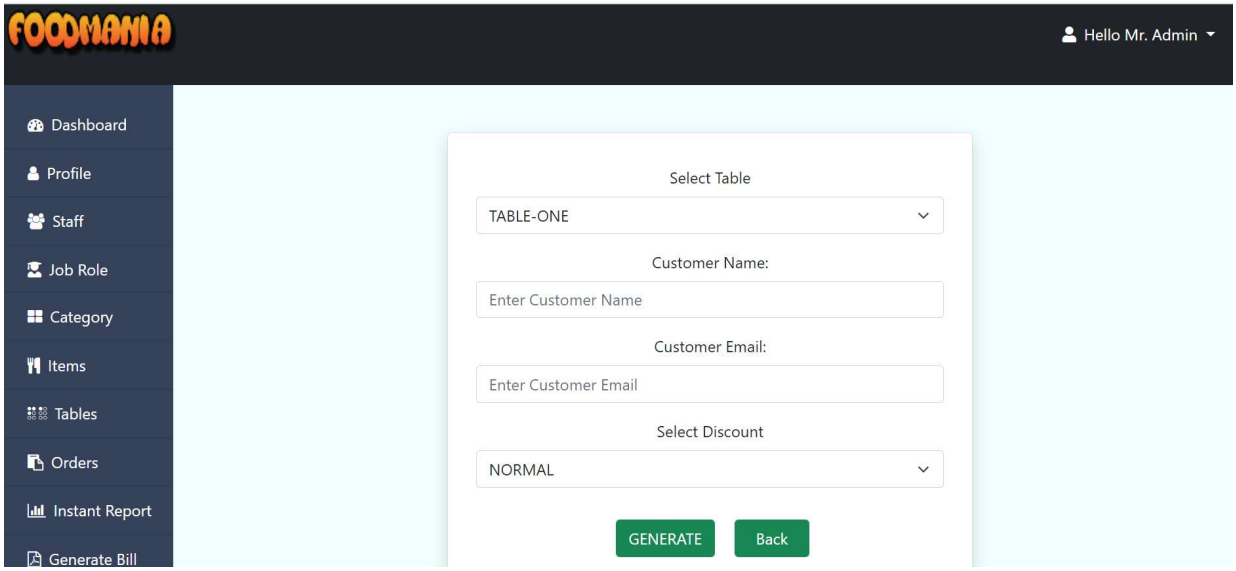
(Till Current Time)

Date : 22-07-11
Discount We Have Given Today(Rs.) : 0
Cash We Have Earn Today(Rs.) : 12.6
Total Number Of Orders We have served Today : 1
Reported By : Mr. Admin

Home

Print



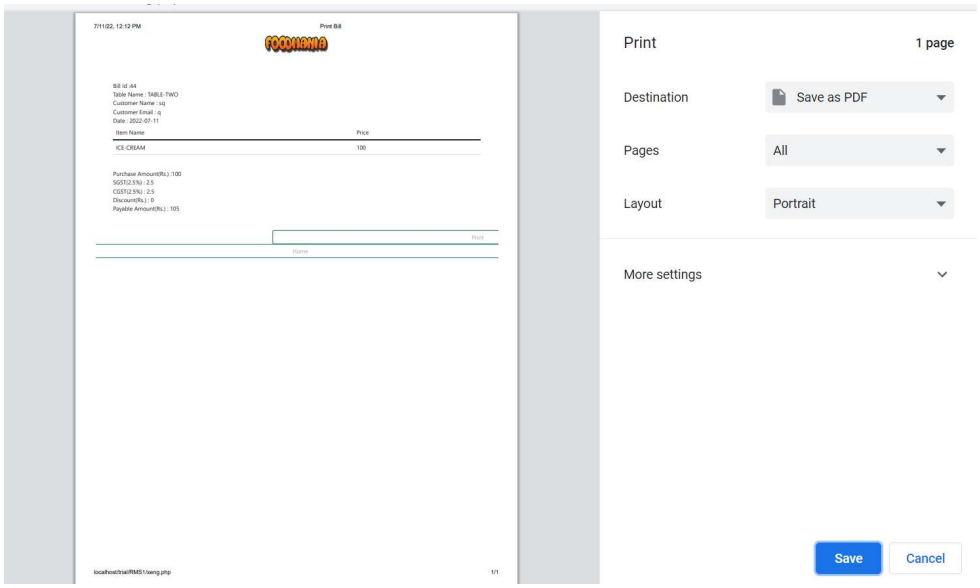


Bill Id :44
Table Name : TABLE-TWO
Customer Name : sq
Customer Email : q
Date : 2022-07-11

Item Name	Price
ICE-CREAM	100

Purchase Amount(Rs.) :100
SGST(2.5%) : 2.5
CGST(2.5%) : 2.5
Discount(Rs.) : 0
Payable Amount(Rs.) : 105

Print Home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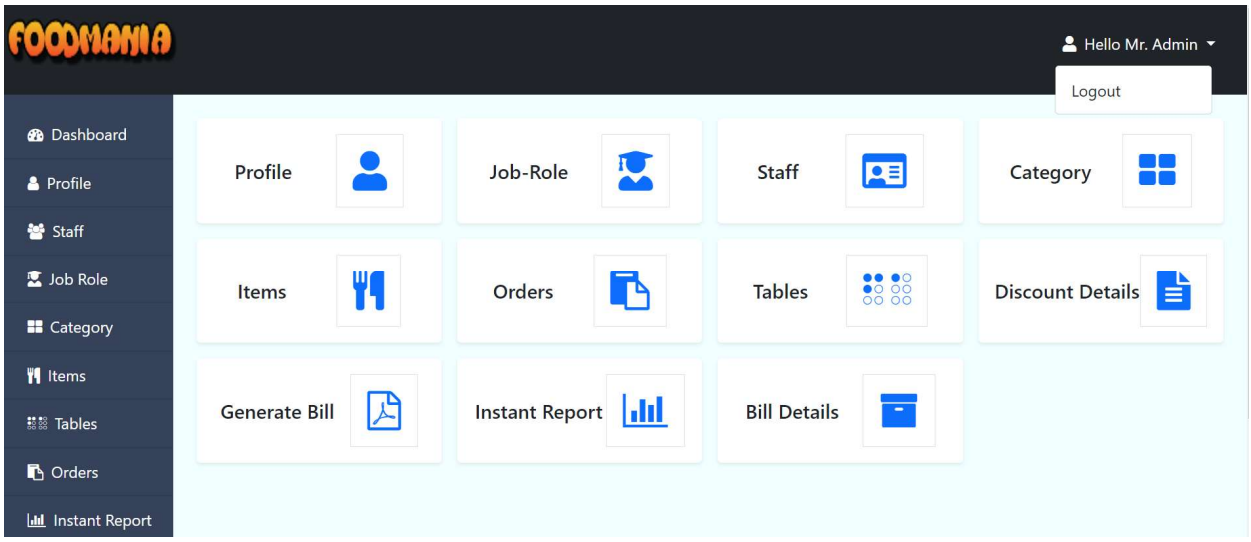
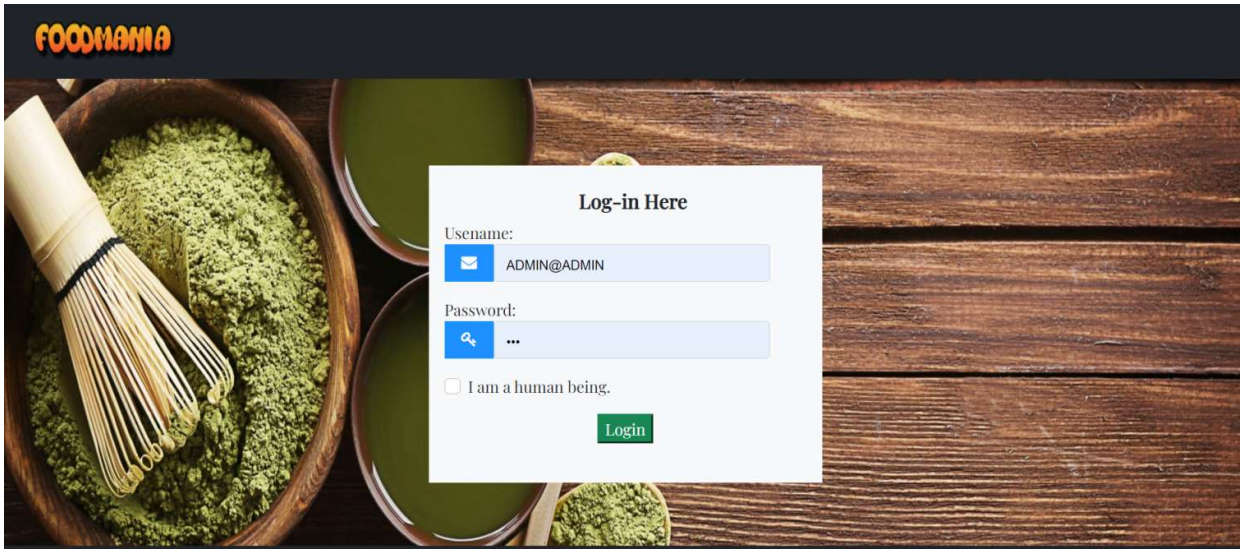
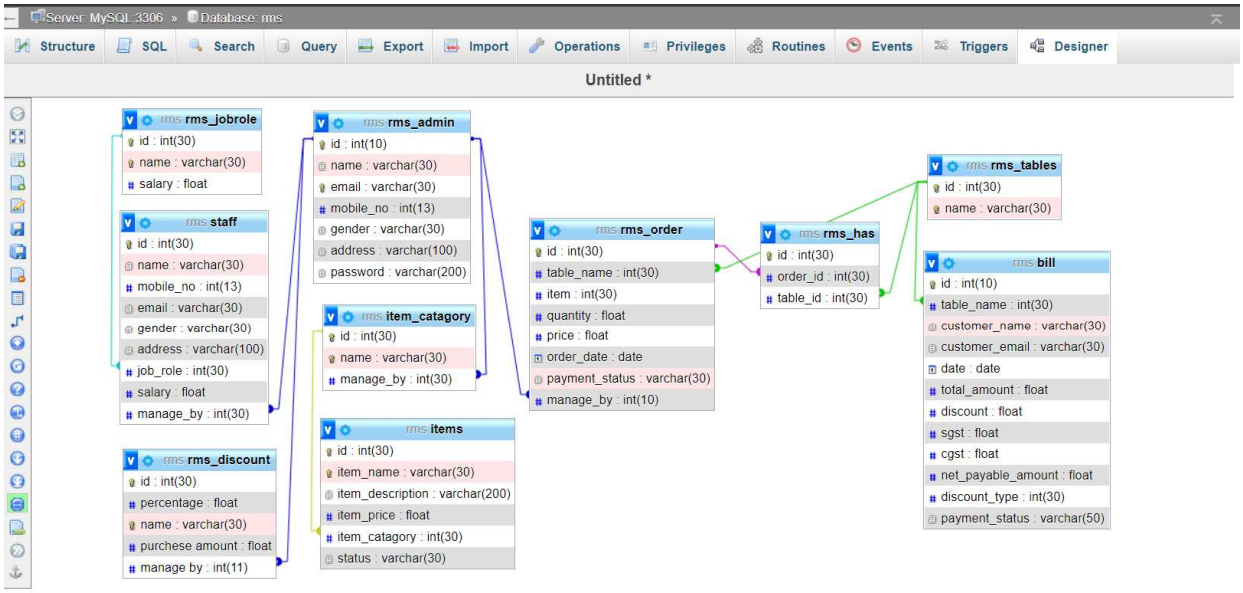
1 page
Destination
Save as PDF
Pages
All
Layout
Portrait
More settings
Save
Cancel


FOODMANIA
Hello Mr. Admin
Logout
Dashboard
Profile
Staff
Job Role
Category
Items
Tables
Orders
Instant Report
Profile
Job-Role
Staff
Category
Items
Orders
Tables
Discount Details
Generate Bill
Instant Report
Bill Details



DATABASE TABLES AND RELATION



FUTURE SCOPES OF THE SYSTEM

The future scopes of the proposed system are:-

- ➢ More graphics can be added to make it more user-friendly and understandable.
- ➢ Some other features like providing monthly, yearly report can also be added that will be very helpful for the pharmacy.
- ➢ System can be extended to take order online.

CONCLUSION

A restaurant management system is essential to run arestaurant efficiently and smoothly. Owner may not be at the restaurant at all times but He/She must have access to this data at all times and a robust restaurant management system helps you do just that. For efficient management, there is a need for a computerised management system that will provide a better, faster and more efficient means for managing the restaurant.

The project aims to develop a restaurant management system in order to provide solutions to current problems and increase efficiency. The system has been developed with much care and it meets the very basic and necessary needs makingit easier to handle all the information. The information can be kept safe for a longperiod of time without any changes. It is helpful to perform paperless work as it provides easy, accurate, unambiguous and faster data access. The system has been developed to be easy to use, efficient and less time consuming.

Restaurant management system that we have made during the project is capable of defining requirements of the restaurant. During the project all the data requirement, functional requirement were closely observed and implemented in the system. The system that we have made is ready for implementation. We hope it will bring efficiency, accuracy, transparency and security to the restaurant management system.

REFERENCES

WEB LINKS :

- https://www.w3schools.com/bootstrap5/bootstrap_buttons.php
- https://getbootstrap.com/
- https://fontawesome.com/
- https://stackoverflow.com/
- https://www.geeksforgeeks.org/
- https://stackoverflow.com/questions/9436534/ajax-tutorial-for-post-and-get
- https://youtube.com//watch?v=Y4rG-zTNuro