

# AUTOMATED RESTAURANT MANAGEMENT SYSTEM

<ARMS>

## User Manual

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Version 1.0

01/07/2018

**Contract Number:** +92-302-7528021

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## Table of Contents

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# 1. Introduction

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Automated Restaurant management system is the system for management of the restaurant business. The main point of developing this system is to help restaurant administrator manage the restaurant business and help customer for online ordering and reserve table reservation. The project is developing because; many restaurants have a lot difficult to manage the business such as customer ordering and reserving table. By using manual customer ordering it is difficult for waiter keep the correct customer information and maybe loss the customer information. So, automated restaurant management system will be developed to help the restaurant administrator to manage restaurant management and for customer make their online ordering and reserving table. Other than that, this project is to upgrade the manual system and make the business easy to access and systematic.

## 1.1 Problem Statement

Automated Restaurant management system is the system for management of the restaurant business. The main point of developing this system is to help restaurant administrator manage the restaurant business and help customer for online ordering and reserve table reservation. The project is developing because; many restaurants have a lot difficult to manage the business such as customer ordering and reserving table. By using manual customer ordering it is difficult for waiter keep the correct customer information and maybe loss the customer information. So, automated restaurant management system will be developed to help the restaurant administrator to manage restaurant management and for customer make their online ordering and reserving table. Other than that, this project is to upgrade the manual system and make the Business easy to access and systematic.

## 1.2 Existing System

The existing system in our taken scenario is manual processing for taking orders, advance booking of table and order. Lot of paper work so that the data processing is very slow and we know after one month how many profit is by get the restaurant which is got by manual notes. For the inventory controls everything is managed by receipts taken from the venders, which not only a time taking process but also increase the chance of miscalculations of budget and profit. Keeping the track of the items left in the inventory is also a problem to be rectified because methods of manual counting are currently used which needs a lot of human effort and consumes time. Currently employed system puts a lot of burden on the manager as along with the problems of maintain records he also have to monitor the proper running of the restaurant. He needs to keep check that which table was handled by which employee and other issues like their salaries and attendance, which is a tiring and time taking process by using registers and other related paper work. Currently customers depend on spot booking which sometimes causes issues like time clash and fatigue for customers. Chef in the kitchen have to keep record on sticky notes for the orders in queue which increases the chance of errors. Hand written bills are given to customers where chances of errors and ambiguities are high.

## **2. Solution**

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To solve this problem, we came up with the idea of developing a computer based model that will replace the existing setup that is feasible and user-specific nature for the above mentioned organization. The implementation details and specifications of our restaurant management system are as follows:

### **2.1 Implementation details:**

The obvious solution that came to our mind when solving the restaurant's problem was to implement a database system designed specifically for their use and that would meet their requirements. To use a database, we also needed to develop a front-end user interface for the employees of the restaurant so that they can use the database in an efficient manner. The database is developed using MySQL and Front end is designed on HTML CSS by using PHP as server side programming language. All the relevant/useful information will be stored in the database in an optimal way that follow the database standards. The user interface would cover all the security aspects of the restaurant, meaning that the information that should be visible only to the manager would be accessible to him and, customers of the restaurant would have a limited view etc.

### **2.2 Specifications & Features:**

Our model can be seen in three perspectives or views and each is different from one another as it is the requirement of our organization to have separate interfaces for different types of users; namely manager view, employee view, and a customer view. The description of those three views, in detail, is as follows:

#### **2.2.1 Manager View:**

The manger will have his login details to access the system. The manager can view the record of all employees, hire/add a new employee to the system, and fire/remove an existing employee from the system. Moreover, the manager can view the inventory and update it too. The manager, can also generate reports on a weekly/monthly basis of employee attendance, orders placed, and expenditure.

#### **2.2.2 Employee View:**

Any employee that is registered by the manager, can logon to the system and will be redirected to the employee's view. The employee can view his attendance details, look for inventory items, and also check the incoming orders and finish them when delivered.

#### **2.2.3 Customer View:**

A customer would first be required to register in the system, setting up his account by entering his personal information. Once, registered in the system, he can login to the system. After successfully logging in, the customer can now view the menu, from which he can place an order by selecting the desired items and their respective quantities. The selections would be added to a cart and a receipt will be generated on the screen, once the order is confirmed.

## 2.3 DOMAIN CONSTRAINTS (SYSTEM LIMITATIONS)

Various barriers and constraints exist when introducing a new system into restaurants. Such barriers are:

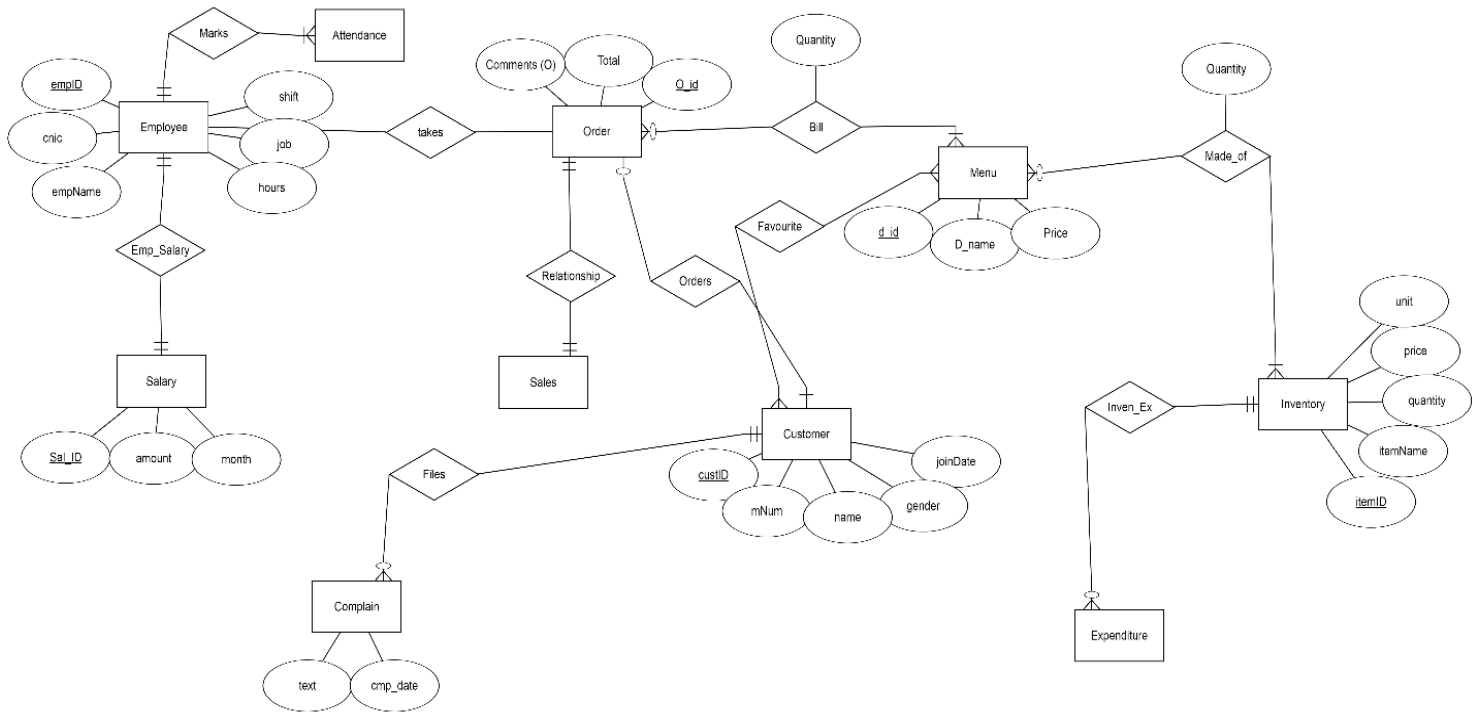
- 1) There is only one branch of the discussed restaurant.
- 2) There is only one manager controlling/supervising the restaurant.
- 3) All employees have equal right in terms of information access and working.
- 4) The payment method for customers is only cash on delivery (Cod).

## 2.4 Tools and Languages Used



### 3. ENTITY-RELATIONSHIP DIAGRAM:

This ER diagram was generated using ERD plus, an online tool to make ERD diagram:



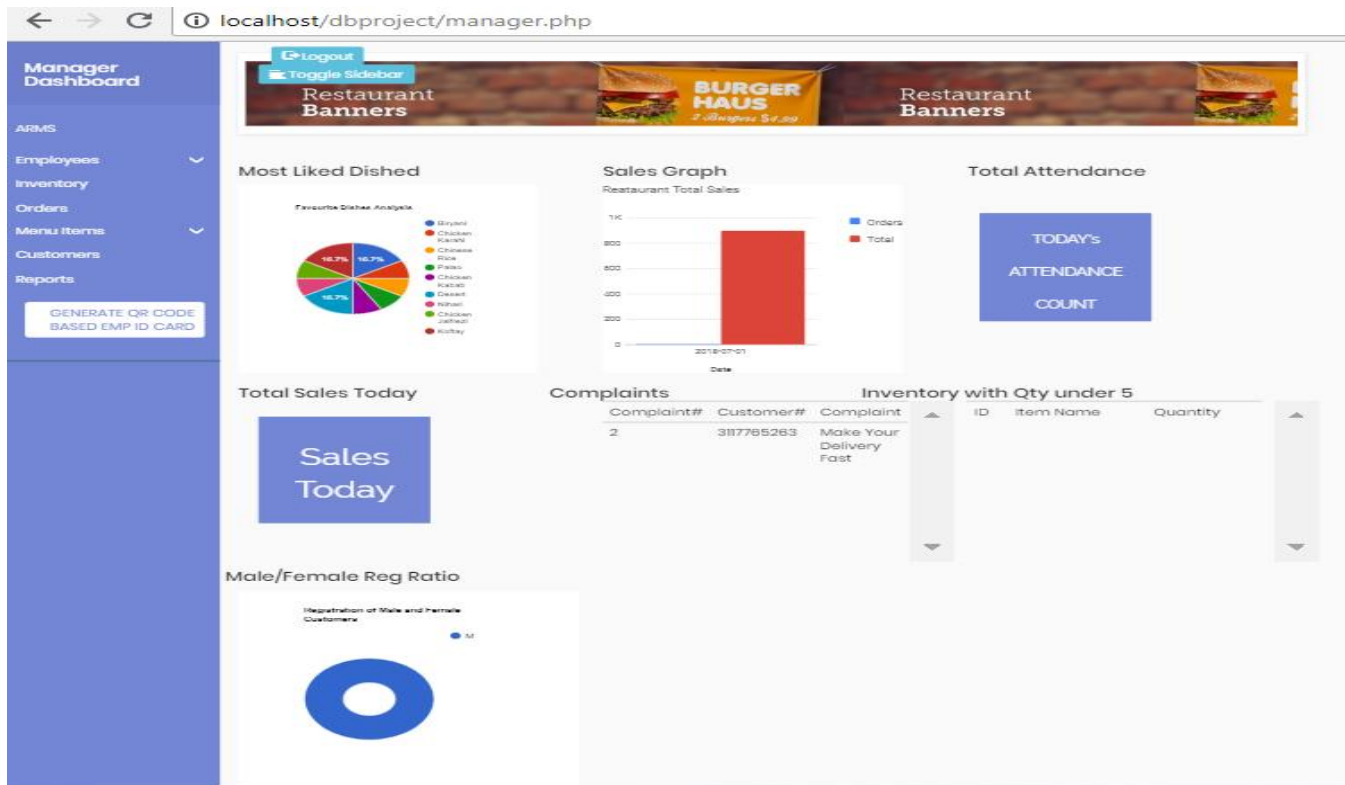
#### 3.1 ERD Explanation

In our system, a customer may place order but and order must be placed by a customer. A customer can place many orders at different times when he visits multiple times. A customer also have no or more favorite menu items. An order have multiple or one item from menu list, which is used to generate a bill. Bill also have a quantity of the menu items in that particular order. Sales of the restaurant are related to the total orders placed. An order must belong to the sales. An employee of the restaurant takes order from the customer. Employee marks his attendance. Employee also have his salary. Customer can file a complaint about services by using his order id. Each item in the menu is made up of one or many items in the inventory. Items in the inventory are purchased from vender which is included in expenditures of restaurant.

## 4. System Feature (Screen Shots)

As early described we have three modules. Now showing each of them as follows. Manager View

### 4.1 Manager view



Manager View of Front End

**Add Employees**  
Enter Employee's credentials

Name:\*

Mobile Number:\*

CNIC:\*

Gender:\* ☒ Female ☐ Male

Job/Role:\*

Hours:

Shift:\*

Password:\*

No file chosen

| CNIC          | Phone Number   | Name                 | Shift                  |
|---------------|----------------|----------------------|------------------------|
| 3410167664723 | +92-3027528021 | Daud Rauf            | M <a href="#">Edit</a> |
| 3420256148443 | +92-3484560032 | Muhammad Atif Bashir | M <a href="#">Edit</a> |

Manager adding Employee for his Restaurant

**Manager Dashboard**

Logout

**Attendance**  
01-07-2018

| ID            | Name                 | Attendance  |
|---------------|----------------------|---|
| 3410167664723 | Daud Rauf            | <input checked="" type="radio"/> Present <input type="radio"/> Absent |
| 3420256148443 | Muhammad Atif Bashir | <input checked="" type="radio"/> Present <input type="radio"/> Absent |

Automated Restaurant Management System

Manager Marking Attendance of Employees



**Manager Dashboard**

Logout  
Toggle Sidebar

**ARMS MENU**

**Add Menu Details**

Dish Name:\*

Price Per Unit (Rs)\*

**Delete Menu Item**

Enter Menu ID to Delete:\*

**Menu List**

| Dish ID | Dish Name        | Unit Price(Rs) |                      |
|---------|------------------|----------------|----------------------|
| 1       | Biryani          | 70             | <a href="#">Edit</a> |
| 2       | Chicken Karahi   | 70             | <a href="#">Edit</a> |
| 3       | Chinese Rice     | 70             | <a href="#">Edit</a> |
| 4       | Palao            | 70             | <a href="#">Edit</a> |
| 5       | Chicken Kabab    | 100            | <a href="#">Edit</a> |
| 6       | Desort           | 80             | <a href="#">Edit</a> |
| 7       | Daleom           | 55             | <a href="#">Edit</a> |
| 8       | Nihari           | 170            | <a href="#">Edit</a> |
| 9       | Chicken Jalfrezi | 130            | <a href="#">Edit</a> |
| 10      | Koftay           | 125            | <a href="#">Edit</a> |

Type here to search

Manager Adding Menu Details

**Manager Dashboard**

Logout  
Toggle Sidebar

**Registered Customers**

All Customers

| ID | Name          | PhoneNumber | Gender         |
|----|---------------|-------------|----------------|
| 9  | Usman         | M           | +92-3016226007 |
| 10 | Abu Bakar     | M           | +92-3042563259 |
| 8  | Shaheryar     | M           | +92-3044367051 |
| 11 | Aamir Shohzad | M           | +92-3048186308 |
| 1  | Anas Sarfraz  | M           | +92-3117765261 |
| 2  | Ali Murad     | M           | +92-3117765263 |
| 3  | Qamar         | M           | +92-3117765264 |
| 4  | Hamza Khalid  | M           | +92-3117765265 |
| 5  | Anoes         | M           | +92-3117765266 |
| 6  | Faiz Hashmi   | M           | +92-3117765267 |
| 7  | Ibtahaj       | M           | +92-3167358309 |

Type here to search

Manager Viewing the Customer which Registered

Manager Dashboard

Logout  
Toggle Sidebar

ARMS

Employees

Inventory

Orders

Menu Items

Customers

Reports

## Reports

Select Month To Generate That Month's Sales Report:

Month  
Year  
Generate

Enter CNIC of Employee to Generate Attendance

Enter CNIC without dashes  
Month  
Year  
Generate

Select Month to Generate Attendance Report

Month  
Year  
Generate

Manager Generating Different Reports

Manager Dashboard

Logout  
Toggle Sidebar

ARMS

Employees

Inventory

Orders

Menu Items

Customers

Reports

## Regular Customers

| Name         | Phone Number   | Total Purchases |
|--------------|----------------|-----------------|
| Anas Sarfraz | +92-3117765261 | 1290            |
| NULL         | +92-3451234567 | 425             |
| Ali Murad    | +92-3117765263 | 345             |

Automated Restaurant Management System

Manager viewing the Purchase by Regular Customers

The screenshot displays a web application interface for managing inventory. On the left is a sidebar with a blue header 'Manager Dashboard' and a list of menu items: ARMS, Employees, Inventory (highlighted in orange), Orders, Menu Items, Customers, and Reports. The main content area is titled 'Inventory' and contains three sections: 'Add Item Details', 'Inventory List', and 'Delete Inventory Item'. The 'Add Item Details' section has four input fields: 'Item Name:\*' (text), 'Scale/Units:\*' (dropdown menu), 'Quantity:\*' (text), and 'Price Per Unit (Rs)\*' (text). Below these is a 'Submit' button. The 'Inventory List' section shows a table with 5 items, each with an 'Edit' link. The 'Delete Inventory Item' section has a text input for 'Enter Item ID to Delete:\*' and a 'Confirm Deletion' button. The browser's address bar shows 'localhost/dbproject/inventory/inventory.php'. The Windows taskbar at the bottom shows the time as 11:06 PM on 01/07/2018.

**Manager Dashboard**

ARMS

Employees

**Inventory**

Orders

Menu Items

Customers

Reports

**Inventory**

**Add Item Details**

Item Name:\*

Scale/Units:\*

Quantity:\*

Price Per Unit (Rs)\*

**Submit**

**Inventory List**

| Item ID | Item Name  | Item Qty | Unit Price(Rs) | Units/Scale          |
|---------|------------|----------|----------------|----------------------|
| 1       | Eggs       | 6        | DZ             | <a href="#">Edit</a> |
| 2       | Flour      | 160      | KG             | <a href="#">Edit</a> |
| 3       | Rice       | 10       | KG             | <a href="#">Edit</a> |
| 4       | Daal Chana | 10       | KG             | <a href="#">Edit</a> |
| 5       | Daal Maash | 8        | KG             | <a href="#">Edit</a> |

**Delete Inventory Item**

Enter Item ID to Delete:\*

**Confirm Deletion**

Manager Managing the Inventory Record

## 4.2 Employee View

The screenshot shows the 'Employee Page' interface. On the left is a sidebar with navigation links: ARMS, Home (highlighted), Attendance, Inventory, and a Logout button. The main content area has a date selector '2018-07-01' with a 'Toggle Sidebar' button. Below this, there are two sections: 'Orders in Queue' and 'Place Customer Order'.

**Orders in Queue**

| Order#                                   | Dishes(Qty) | Status  |
|--|-------------|---------|
| 5  |             | pending |
| <input type="button" value="Delivered"/> |             |         |

**Place Customer Order**

| Item Names       | Quantity                       | Their Prices |
|------------------|--------------------------------|--------------|
| Biryani          | <input type="text" value="1"/> | 70           |
| Chicken Karahi   | <input type="text" value="1"/> | 70           |
| Chinese Rice     | <input type="text" value="1"/> | 70           |
| Palao            | <input type="text" value="1"/> | 70           |
| Chicken Kabab    | <input type="text" value="1"/> | 100          |
| Dosert           | <input type="text" value="1"/> | 80           |
| Daloom           | <input type="text" value="1"/> | 55           |
| Nihari           | <input type="text" value="1"/> | 170          |
| Chicken Jalfrazi | <input type="text" value="1"/> | 130          |
| Kaftay           | <input type="text" value="1"/> | 125          |

Below the table, there is a 'Number:' field with 'Enter the Number' placeholder, a 'Comment Box' with 'Enter comments' placeholder, and a 'submit' button.

Employee view where he/she can

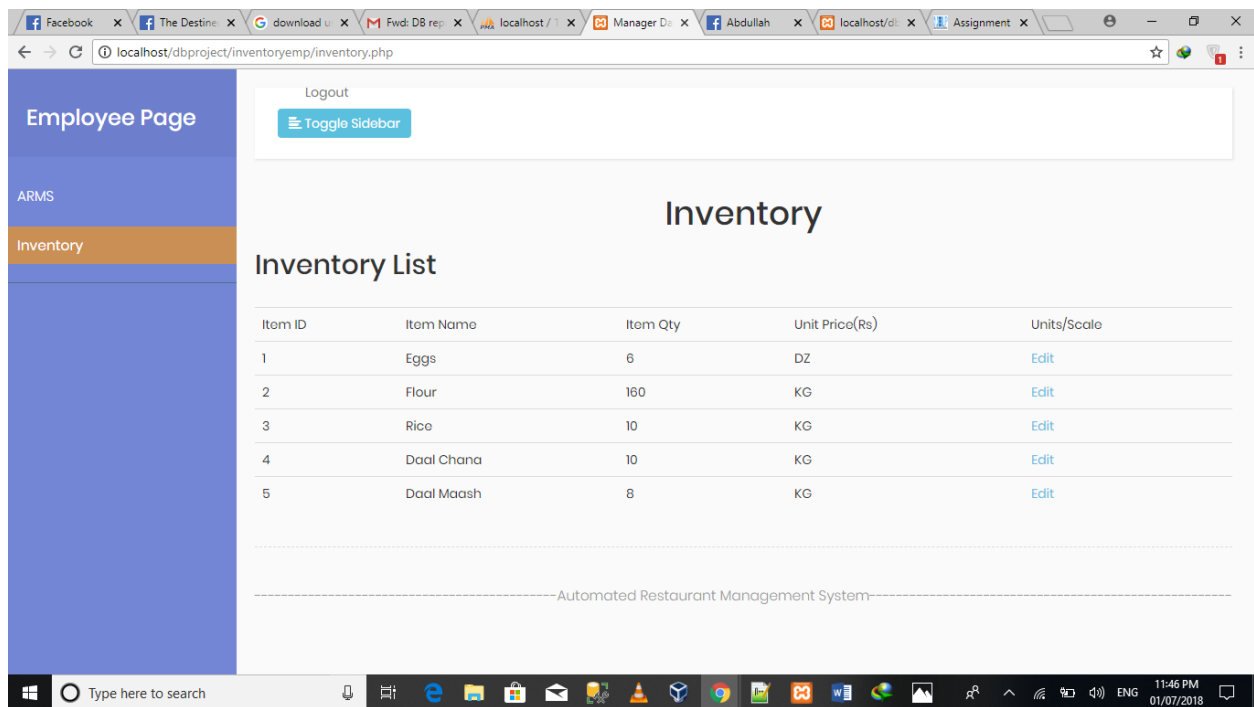
1. Make an Order.
2. Delivered the Order.

The screenshot shows the 'Employee Page' interface. The sidebar is the same as in the previous screenshot. The main content area has a date selector '2018-07-01' with a 'Toggle Sidebar' button. Below this, there is a section titled 'Select Month & Year to Generate Salary Report'.

Below the title, there are two dropdown menus: 'Month' and 'Year'. To the right of these dropdowns is a 'Generate' button.

At the bottom of the main content area, there is a footer that reads 'Automated Restaurant Management System'.

Employee Generating his/her Monthly Salary Report



The screenshot shows a web browser window displaying the ARMS (Automated Restaurant Management System) interface. The browser's address bar shows the URL `localhost/dbproject/inventoryemp/inventory.php`. The page has a blue sidebar on the left with the text "Employee Page" at the top, followed by "ARMS" and "Inventory" (which is highlighted in orange). The main content area has a white header with a "Logout" link and a "Toggle Sidebar" button. Below this, the title "Inventory" is centered, followed by the section "Inventory List". A table lists five inventory items with columns for Item ID, Item Name, Item Qty, Unit Price(Rs), and Units/Scale. Each item has an "Edit" link in the Units/Scale column. The table data is as follows:

| Item ID | Item Name  | Item Qty | Unit Price(Rs) | Units/Scale          |
|---------|------------|----------|----------------|----------------------|
| 1       | Eggs       | 6        | DZ             | <a href="#">Edit</a> |
| 2       | Flour      | 160      | KG             | <a href="#">Edit</a> |
| 3       | Rice       | 10       | KG             | <a href="#">Edit</a> |
| 4       | Daal Chana | 10       | KG             | <a href="#">Edit</a> |
| 5       | Daal Maash | 8        | KG             | <a href="#">Edit</a> |

Below the table, there is a dashed line and the text "Automated Restaurant Management System". The Windows taskbar at the bottom shows the search bar, task view button, and several application icons. The system clock indicates 11:46 PM on 01/07/2018.

Employee Managing Inventory

kl

## 4.3 Customer View

The screenshot displays the ARMS Customer View interface. The sidebar on the left shows the user's name 'Hello Anas Sarfraz' and a 'Logout' button. The main content area is divided into two sections: 'Place Your Order' and 'Suggestion Box/Complaint Box'.

**Place Your Order**

| Item Names       | Quantity | Price |
|------------------|----------|-------|
| Biryani          | 1        | 70    |
| Chicken Karahi   | 1        | 70    |
| Chinese Rice     | 1        | 70    |
| Palao            | 1        | 70    |
| Chicken Kabab    | 1        | 100   |
| Desert           | 1        | 80    |
| Dallem           | 1        | 55    |
| Nihari           | 1        | 170   |
| Chicken Jalfrezi | 1        | 130   |
| Koftay           | 1        | 125   |

Below the table, there are input fields for 'Comment Box' (with placeholder 'Enter your comments'), 'Current Address' (with placeholder 'Address for Delivery'), and a 'submit' button. A 'Generate Invoice' button is also present.

**Suggestion Box/Complaint Box**

This section contains a 'Your Complaint' input field, a 'Suggestions/Complaints' input field, and a 'submit' button.

**Your Previous 5 Orders**

| Order ID | Total Amount |
|----------|--------------|
| 2        | 300          |
| 1        | 900          |

Customer view where he/she makes an Order also suggest or complain

The screenshot displays the ARMS Customer Invoice report. The report is titled 'ARMS HOTEL Customer Invoice' and shows a table of items ordered. The invoice number is 5, and the date/time is 01-07-18 / 20:11.

**Customer Invoice**

Invoice#: 5 Date / Time: 01-07-18 / 20:11

| ItemNo       | DishName         | Quantity | UnitPrice | CumPrice |
|--------------|------------------|----------|-----------|----------|
| 1            | Biryani          | 1        | 70        | 70       |
| 2            | Chicken Kabab    | 1        | 100       | 100      |
| 3            | Chicken Jalfrezi | 1        | 130       | 130      |
| 4            | Koftay           | 1        | 125       | 125      |
| 5            | Biryani          | 1        | 70        | 70       |
| 6            | Chicken Karahi   | 1        | 70        | 70       |
| Total Amount |                  |          |           | 565      |

Below the table, there is a message: 'Thank you for ordering, Anas Sarfraz'.

Customer Generating Bill Report/Slip

