

# Database Systems

## Semester Project



28-05-2015

## **Introduction:**

This section provides the basic information about the system being developed. The document aims at providing system's introduction to the customer. Different subsequent sections including Purpose, Objectives, Scope and Significance elaborately introduce and define the system.

## **Purpose/ Problem Statement:**

Before the client (Bonne' Nourriture) came to us for a solution for their food restaurant, it was facing several problems. Some of these are as follows:

- There was a lot of paper work included that itself was troublesome.
- It was difficult to take orders and they eventually had very small member-ships.
- Orders management was very poor. Causing wrong orders to be placed.
- It was difficult to manage records, produce reports etc.
- There was no track of customers.
- Overall management was based on paper. No automation.

## **Objectives:**

Based on the problem statement our objects can be defined in two portions. General and Specific.

### **1. General Objective:**

- The system aims at providing better solution to the problems being faced by the restaurant owner. And provide a much better application to use in day to day environment.
- To help the restaurant owner stand out in the competitive market.

### **2. Specific Objectives:**

- To enable restaurant owner take orders 24/7.
- To help the cafe to provide better ordering environment to its customers.
- To provide cafe's customer with online menu for better placement of orders.
- To provide visual confirmation to the cafe's customer on order placement.
- Improve the offer all efficiency of cafe's management.
- To eliminate paper management to increase the level of accuracy.
- To provide different automated reports in order to track the performance of cafe.
- To increase the sales volume and customer satisfaction.
- And to reduce waiting time.

**Scope:**

The scope of the project includes all the general and specific objectives set for the system. The basic aim still remains the main goal i.e. to simplify and improve the quality of ordering process.

**Significance:**

The system aims at providing the best solution to the problem statement. In particular the system will benefit the following:

- Help customers and employees in order placement and processing.
- Help eradicate the paper management and automate maximum operations.
- Provide an online and secure ordering option to the customers.
- The system will automate all the major operations involved in food ordering.

**Functional requirements:**

Functional requirements define the capabilities and functions that a system must be able to perform successfully. The functional requirements of this online ordering system include:

- The system shall enable the customer to view the products menu, prices and place an order.
- The customer specifies whether he wants to pick the order or needs it to be delivered.
- The system shall display the food items ordered, the individual food item prices and the payment amount calculated.
- The system shall prompt customer to confirm the placed order.
- The system shall provide visual confirmation of the order placement.
- The system shall enable the manager to view, create, edit and delete food category and descriptions etc.
- The system shall allow confirmation of pending orders.
- The system shall allow generation of sales reports related to employee's performance, record management, and inventory and order placement.

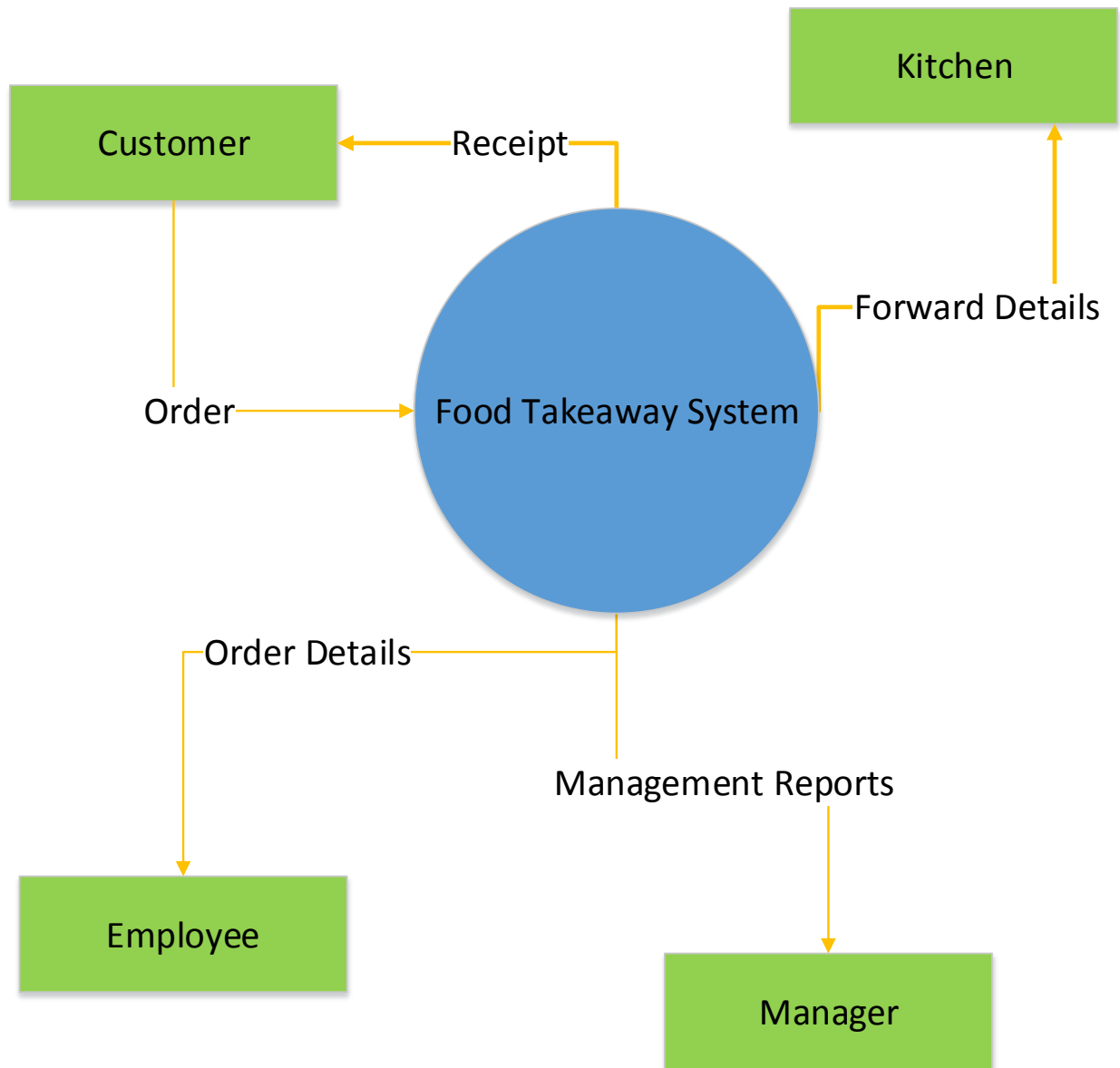
## **Reports:**

The following are the proposed report names that our system will be producing to help the system users get the best out of it. It also contains the expected attributes that will be related/necessary to the reports.

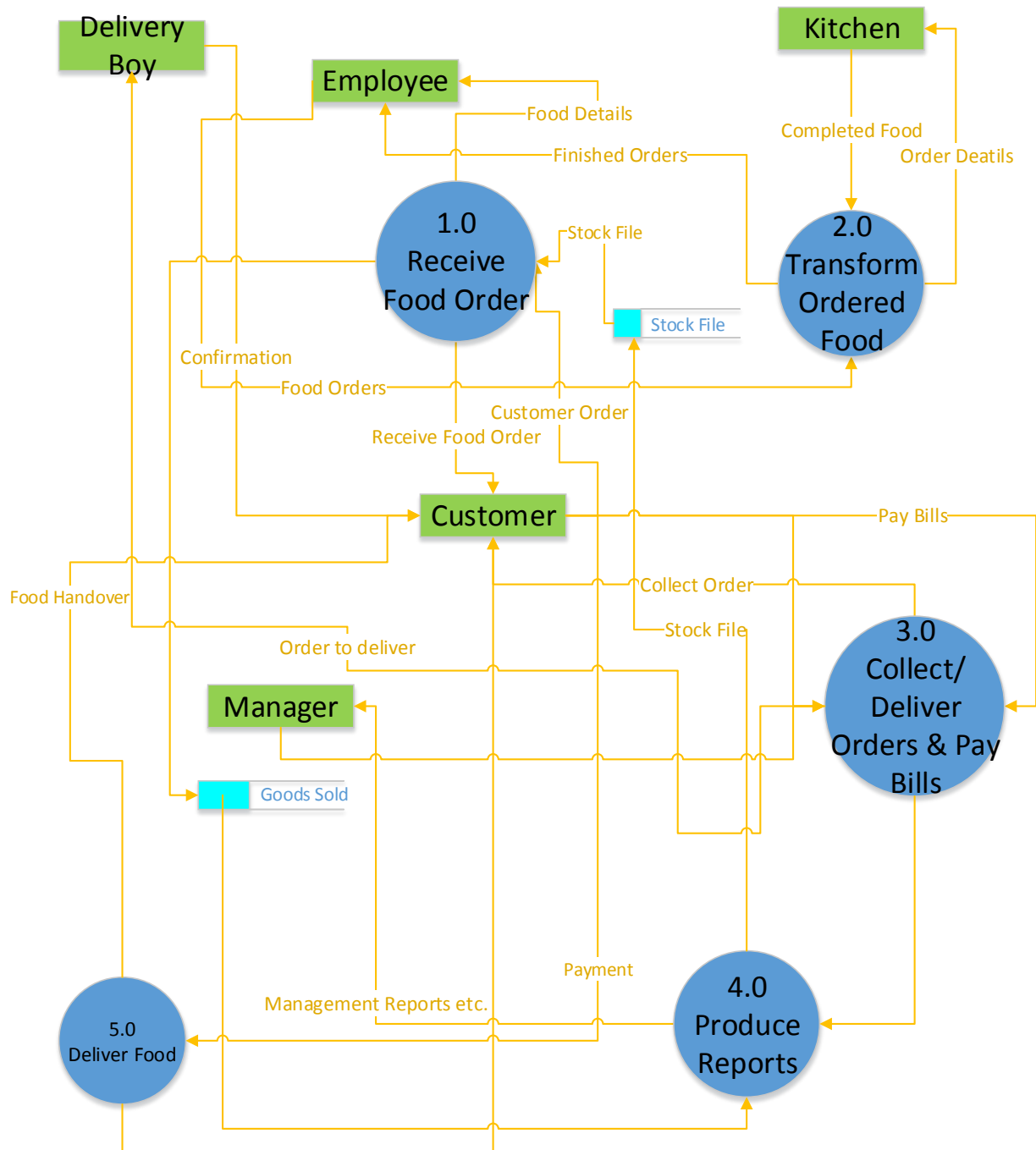
- **Managerial Reports:**  
The system will allow the user to create different kinds of managerial reports to track the overall performance.
- **Monthly Trackback Reports:**  
The system will allow the user to create different kinds of managerial reports to track the overall performance.
- **Employee Performance Reports:** (Employee\_ID, Employee\_Name, Total\_Order\_Served)  
The system will allow the user to check the performance of its employees by using the reports feature of the system. It will help the manager to track the performance of the employees and maximize utility.
- **Sales Reports:** (Product\_Name, Quantity, Order\_Date)  
The system will allow the user to create the reports related to products/items sold, orders placed and delivered etc.
- **Inventory Reports:** (Product\_ID, Product\_Name, Quantity)  
Inventory reports will allow the manager to keep record of the products in the stock.
- **Supply Reports:** (Product\_ID, Product\_Name, Quantity, Price, Order\_Date)  
The system will allow the user to create reports that will keep record of the supplies.
- **Customer Reports:** (Customer\_ID, Customer\_Name, Total\_Orders)  
The system will generate customer related reports including top customers or the opposite. That will in reflect help the cafe track its performance.
- **Delivery Reports:** (Customer\_ID, Customer\_Name, Order\_ID, Bill, Employee\_ID, Order\_Date)  
The system will also help generate reports related to the sales completed by delivery boy.
- **Order Cancelled Reports:** (Order\_ID, Item\_ID)  
Reports related to the the order that were cancelled later on by the one who placed the order.
- **Customer Feedback Report:** (Customer\_ID, Customer\_Name, Order\_ID, Employee\_Name etc)  
The system will first record the feedback of the cafe's customers. And then let the manager to get reports related to the performance of the employees.

## DATA FLOW DIAGRAMS:

### Context Level:

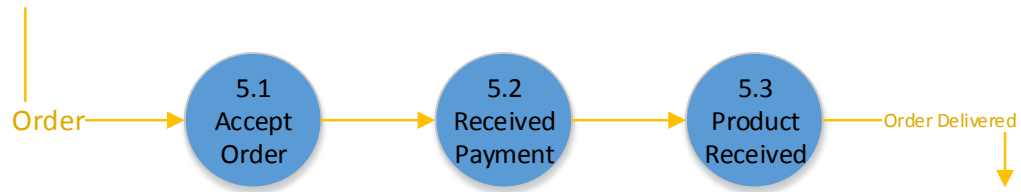


**Level – 0:**

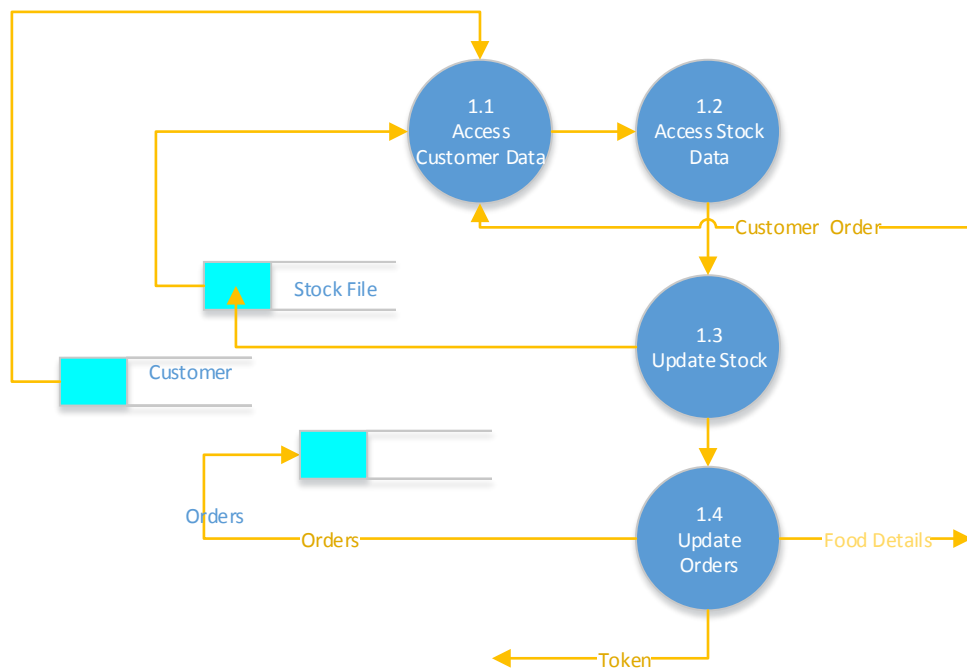


## Level – I:

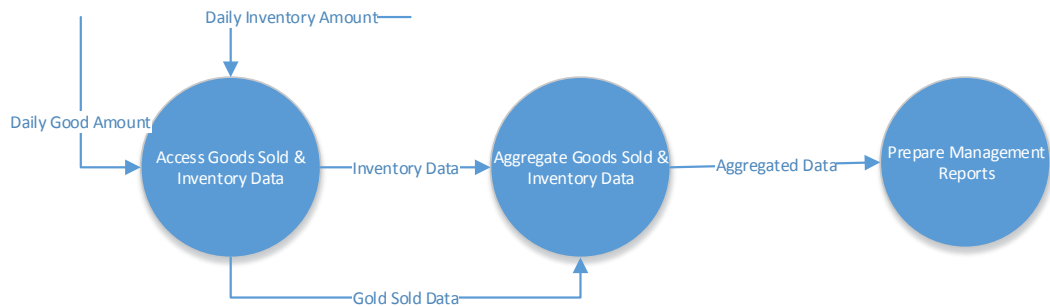
### Deliver Food:



### Receive Food Order

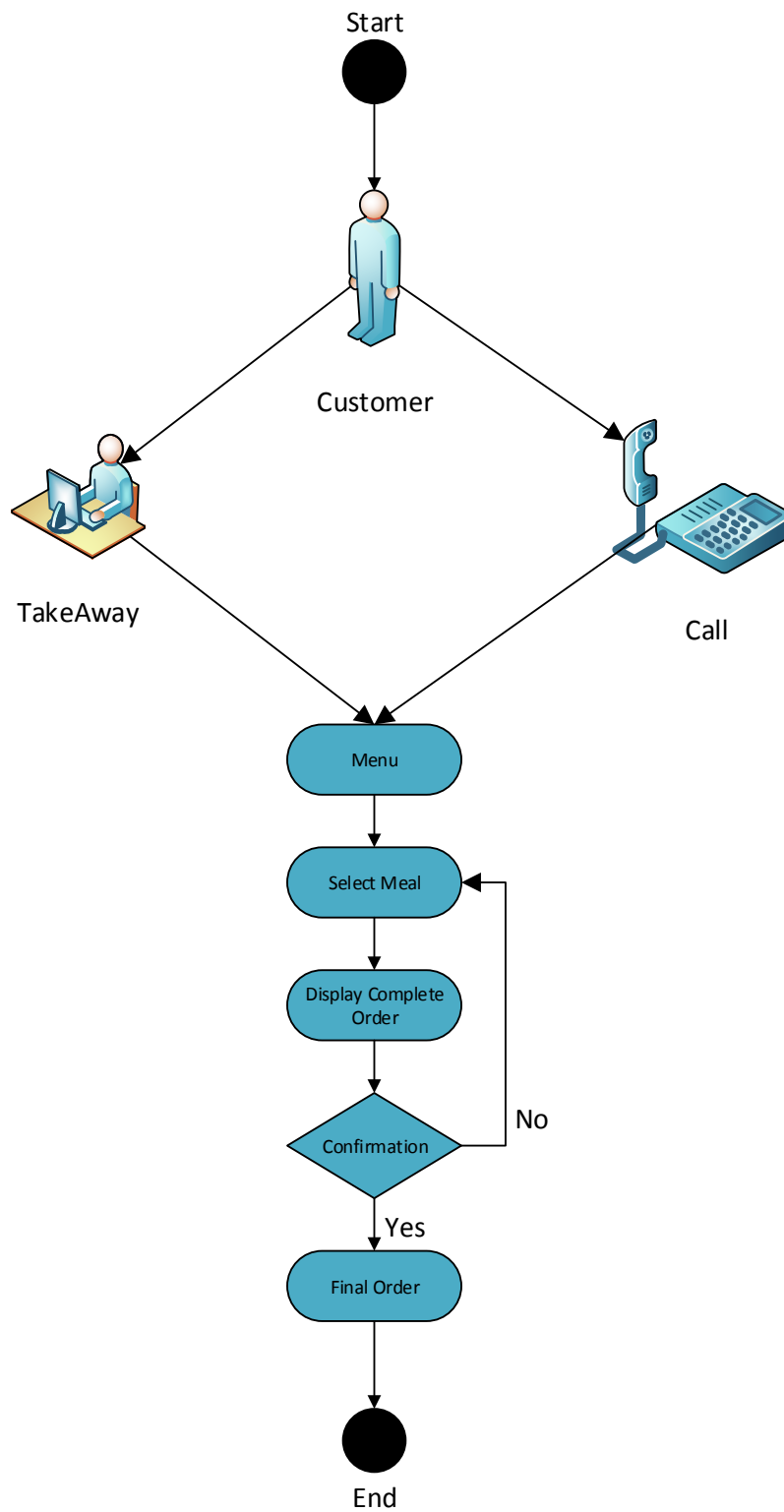


### Produce Reports:



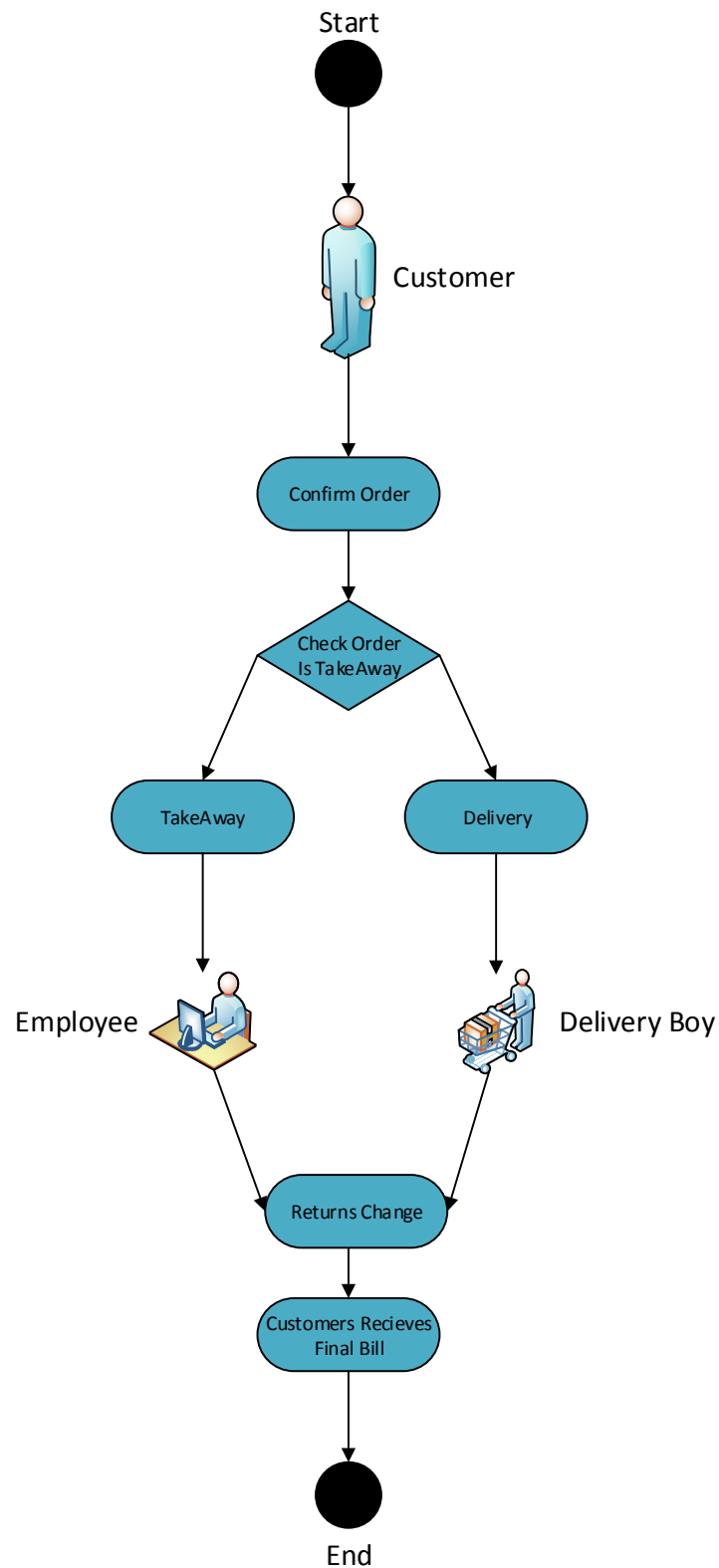
## FLOW CHART DIAGRAMS:

### Place Order:

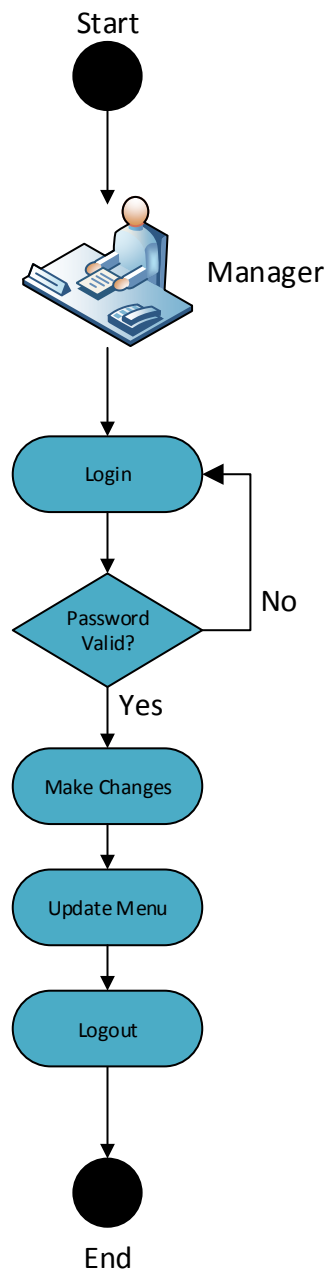




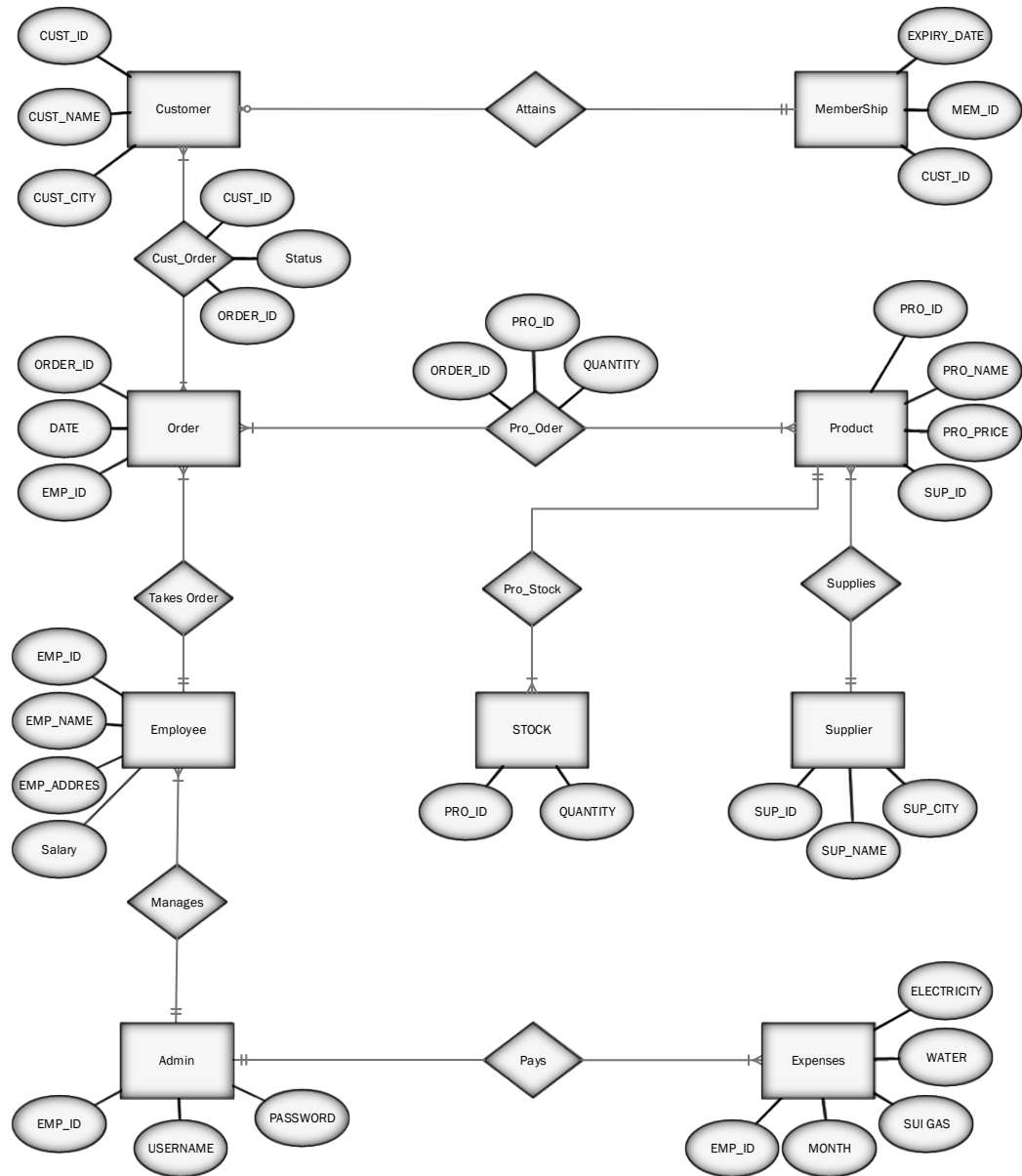
**Make Payments:**



### Update Menu:



## **ERD DIAGRAM**



# **CUSTOMERS INTERFACE**



## Choose From Our Menu



Fast Food



Drinks



Desserts



Premium Delights



### Dine

We welcome you as our special guest. There is a lot of space with table indoor as well as outdoor. You can eat without thinking about the place. We welcome you as our special guest. ...



### TakeAway

With bonne'nouriture new TakeAway facility you can order the food whenever you want and then collect it from our TakeAway window. With flexible payment options.



### DELIVER

Alongside the DINE & TakeAway features we also provide free-home delivery to our valuable customers. You can now order food online or by phone and let our delivery boy deliver you the food.

[About Us](#) - [Privacy Policy](#) - [Find Us](#)

All Rights Reserved.  
bonne' nouriture 2015.



bonne' nouriture  
The good mood food!

### LOGIN

USER


PASS

☐ Remember me

LOGIN

Do not have an account?

Register



# SIGN UP

USER

PASS

EMAIL

MOB #

ADDR

☐ I agree to TOS.

SIGN UP

Already a member?  
Sign In



# ORDER

DEAL

Click here to select deal.

NAME

Enter your name here.

MOB #

Enter your cell number.

ADDR

Enter in case of delivery.

☐ I agree to TOS.

SUBMIT

Select one:  
☐ DINE  
☐ TAKEAWAY  
☐ DELIVERY



## FEEDBACK FORM

Name:

Contact No:

### QUALITY OF SERVICE AND WORK

Rating Criteria		
Staff Availability	Is Staff available to you at the time that you require?	★ ★ ★ ★ ★
Quality Standard	How would you rate the quality of meal?	★ ★ ★ ★ ★

Comment  
(if any)

### OTHERS

Rating Criteria		
Satisfaction Level	How would you rate the level of satisfaction?	★ ★ ★ ★ ★
Delivery	How do our Delivery compare with others?	★ ★ ★ ★ ★
Environment	Do you think seating environment is comfortable?	★ ★ ★ ★ ★
Price	How do our prices compare with others?	★ ★ ★ ★ ★

SUBMIT

# **EMPLOYEES INTERFACE**





bonne' nourriture

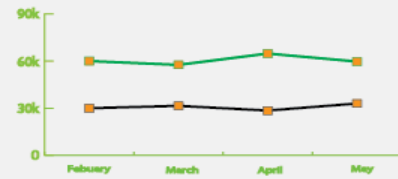
## MONTHLY EXPENSES REPORT

Monthly Report

Yearly Report



	May	April	March	February
Suppliers				
Employees				
Electricity				
Sul Gas				
Water				
Total Expenses				



All Rights Reserved.

BITS n BYTES



bonne' nourriture

## YEARLY EXPENSES REPORT

Monthly Report

Yearly Report



	2015	2014	2013	2012
Suppliers				
Employees				
Electricity				
Sul Gas				
Water				
Total Expenses				



All Rights Reserved.

BITS n BYTES



bonne' nourriture

## DAILY SALES REPORT

Daily Report

Monthly Report

Yearly Report

Product ID	Product Name	Product Quantity	Product Price

Total Sales:

© All Rights Reserved.

BITS n BYTES



bonne' nourriture

## STOCK INFORMATION

Supplier ID:

Product ID:

Quantity:

Date:

Fare:

UPDATE



© All Rights Reserved.

BITS n BYTES

## Microsoft SQL SERVER QUERIES

- **Daily Sales:**

```
select p.pro_name as 'Products', o.Date as 'Sold Date',sum(quantity) as 'Total Product Sold' from products p, pro_order po, orders o
where p.pro_id = po.pro_id and o.order_id = po.order_id
group by p.pro_name, o.Date
```

	Products	Sold Date	Total Product Sold
1	Chicken Burger	2015-02-01	15
2	Sprite	2015-02-01	1
3	Beef Burger	2015-02-02	2
4	Chicken Burger	2015-02-03	5
5	Pizza	2015-02-04	1
6	Paratha Roll	2015-02-05	8
7	Beef Burger	2015-02-06	5
8	Coca cola	2015-02-07	3
9	Zinger Burger	2015-02-08	6
10	Sprite	2015-02-09	2
11	Mineral Water	2015-02-10	4
12	Shawama	2015-02-11	3
13	Dew	2015-02-12	5
14	Paratha Roll	2015-02-13	8
15	Dew	2015-02-14	4
16	Shawama	2015-02-15	2
17	Paratha Roll	2015-02-16	2

- **Monthly Sales:**

```
select p.pro_name as 'Products', o.Date as 'Sold Date',sum(quantity) as 'Quantity'
from products p, pro_order po, orders o
where p.pro_id = po.pro_id and o.order_id = p.pro_id
and o.date >= '20150201' and o.date < '20150228'
group by p.pro_name, o.Date
```

	Products	Sold Date	Quantity
1	Beef Burger	2015-02-02	7
2	Chicken Burger	2015-02-01	20
3	Coca cola	2015-02-07	3
4	Dew	2015-02-09	9
5	Mineral Water	2015-02-10	4
6	Paratha Roll	2015-02-05	18
7	Pizza	2015-02-04	1
8	Shawama	2015-02-03	5
9	Sprite	2015-02-08	3
10	Zinger Burger	2015-02-06	6

- **Orders In Queue:**

```
Select cust_order.order_id as 'Order ID', pro_order.pro_id as 'Product ID',
cust_order.status as 'Status', orders.Date as 'Order Date'
from pro_order, cust_order, orders
where pro_order.order_id = cust_order.order_id and orders.order_id=
cust_order.order_id and status='Open'
```

	Order ID	Product ID	Status	Order Date
1	1	1	Open	2015-02-01
2	3	1	Open	2015-02-03
3	4	4	Open	2015-02-04
4	6	2	Open	2015-02-06
5	8	6	Open	2015-02-08
6	10	10	Open	2015-02-10
7	12	9	Open	2015-02-12

- **Delivered Orders:**

```
Select cust_order.order_id as 'Order ID', pro_order.pro_id as 'Product ID',
cust_order.status as 'Status', orders.Date as 'Delivery Date'
from pro_order, cust_order, orders
where pro_order.order_id = cust_order.order_id and orders.order_id=
cust_order.order_id and status='Delivered'
```

	Order ID	Product ID	Status	Delivery Date
1	2	2	Delivered	2015-02-02
2	5	5	Delivered	2015-02-05
3	11	3	Delivered	2015-02-11
4	15	3	Delivered	2015-02-15
5	16	5	Delivered	2015-02-16

- **Cancelled Orders:**

```
Select cust_order.order_id as 'Order ID', pro_order.pro_id as 'Product ID',
cust_order.status as 'Status', orders.Date as 'Cancellation Date'
from pro_order, cust_order, orders
where pro_order.order_id = cust_order.order_id and orders.order_id=
cust_order.order_id and status='Cancel'
```

	Order ID	Product ID	Status	Cancellation Date
1	7	7	Cancel	2015-02-07
2	9	8	Cancel	2015-02-09
3	13	5	Cancel	2015-02-13
4	14	9	Cancel	2015-02-14

- **Suppliers Info:**

```
select s.sup_id as 'ID', s.sup_name as 'Name', s.sup_city as 'City', pro_name as
'Product Name', pro_price as 'Price per Product' from supplier s Inner Join
products on s.sup_id = products.sup_id order by s.sup_id
```

	ID	Name	City	Product Name	Price per Product
1	1	Asad	Lahore	Chicken Burger	120
2	1	Asad	Lahore	Beef Burger	150
3	2	Fahad	Karachi	Zinger Burger	170
4	3	Salim	Lahore	Shawarma	80
5	4	Bilawal	Multan	Pizza	300
6	5	Abdul	Lahore	Paratha Roll	110
7	6	Samad	Multan	Mineral Water	30
8	7	Faizan	Lahore	Coca cola	30
9	7	Faizan	Lahore	Sprite	30
10	7	Faizan	Lahore	Dew	30

- **Inventory:**

```
select products.pro_id as 'Product ID',pro_name as 'Product',quantity as
'Quantity' from stock,products,supplier where products.pro_id = stock.pro_id and
supplier.sup_id = products.sup_id order by products.pro_id
```

	Product ID	Product	Quantity
1	1	Chicken Burger	34
2	2	Beef Burger	45
3	3	Shawarma	12
4	4	Pizza	46
5	5	Paratha Roll	65
6	6	Zinger Burger	23
7	7	Coca cola	45
8	8	Sprite	32
9	9	Dew	56
10	10	Mineral Water	43

- **Employee Performance:**

```
select e.emp_id as 'Employee ID',e.emp_name as 'Employee Name',e.emp_address as
'Employee Address',count(o.order_id) as 'Total Orders' from employees e inner join
orders o on e.emp_id = o.emp_id group by e.emp_id,e.emp_name,e.emp_address
```

	Employee ID	Employee Name	Employee Address	Total Orders
1	1	Ahmad	12 Township	3
2	2	Siddique	12 Johar Town	4
3	3	Umar	54 Wahdat Road	2
4	4	Rana	16 Johar Town	2
5	5	Faizan	75 Tricon	1
6	6	Zeeshan	45 Johar Town	1
7	7	Hassnain	96 Walton	2
8	8	Amjad	48 Township	2

- **Customers Membership:**

```
select mem_id as 'Membership id', cust_name AS 'Customer Name', cust_city AS
'City', expiry_date AS 'Expiry Date'
from customers c
inner join membership m
on c.cust_id = m.cust_id
```

	Membership id	Customer Name	City	Expiry Date
1	1	Bilal	Lahore	2015-12-31
2	2	Azhar	Lahore	2015-12-31
3	3	Arsalan	Lahore	2015-12-31
4	4	Ali	Lahore	2014-12-31
5	5	Ahsan	Lahore	2014-12-31
6	6	Azib	Lahore	2014-12-31
7	7	Talha	Lahore	2013-12-31
8	8	Azeem	Lahore	2013-12-31
9	9	Wahab	Islamabad	2013-12-31

- **Memberships Order:**

```
select p.pro_name as 'Products', o.Date as 'Sold Date', sum(quantity) as 'Quantity'
from products p, pro_order po, orders o
where p.pro_id = po.pro_id and o.order_id = p.pro_id
and o.date >= '20150201' and o.date < '20150228'
group by p.pro_name, o.Date
```

	Customer ID	Customer Name	Total Orders
1	1	Bilal	1
2	3	Azhar	2
3	5	Arsalan	1
4	7	Ali	1
5	8	Wahab	1
6	9	Ahsan	2
7	13	Talha	1
8	15	Azeem	1