

# FOOD ORDER AND DELIVERY MANAGEMENT SYSTEM

#### **OBJECTIVES**

To assist owners in obtaining the delivery management procedure' transparency plan and providing customers for a way to place an order at a restaurant over the internet.. Give your clients a high level of information transparency.

And encourage automated task and person allocation.

**Priyam Sekra** 

### **Abstract:**

The Online Food Ordering System's main purpose is to maintain track of information such as Item Category, Food, Delivery Address, Order, and Shopping Cart. It keeps track of information about the Item Category, the Customer, the Shopping Cart, and the Item Category. Only the administrator gets access to the project because it is totally built at the administrative level. The project's purpose is to develop software that will cut down on the time spent manually managing Item Category, Food, Customer, and Delivery Address. It saves the Delivery Address, Order, and Shopping Cart information.

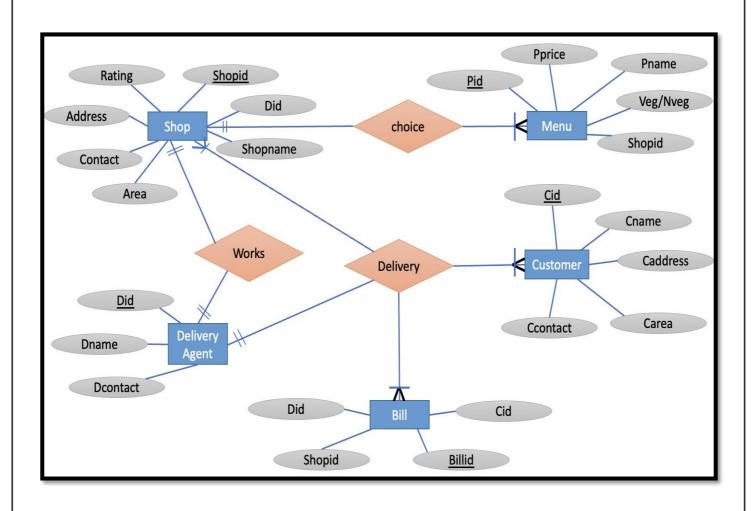
### **Problem Statement:**

- The technology we recommend is an easy-to-use online meal ordering system for customers. The procedure of taking a customer's order is made easier with this technology. Customers may place orders fast utilising the online meal ordering system, which generates an online menu. Customers can also use a meal menu to keep track of their orders.
- The next part provides an overview of the Software Requirements Specification developed from the subject Online Food Ordering System. To begin, the document's purpose and intended audience are described. The scope of the project is then specified in the paper, with a special emphasis on what the resulting programme will do and the benefits that come with it.

### **SYSTEM DESIGN:**

#### 1. Entity Relationship Diagram (ERD):

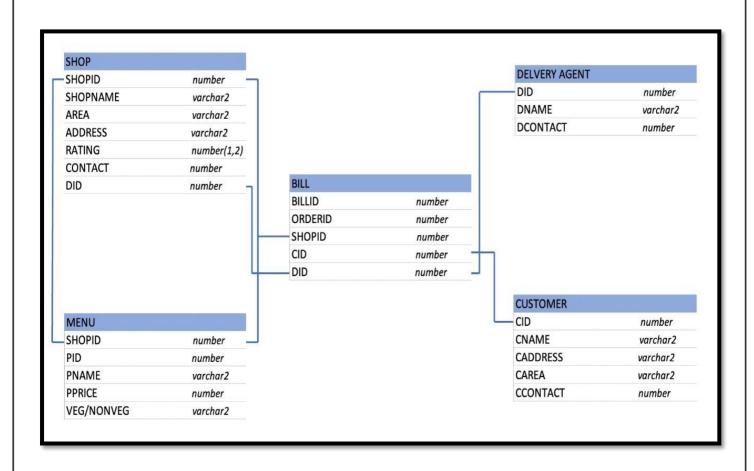
➤ The Entity Relationship Diagram (ERD) is a visual representation that "allows specification of an enterprise schema that depicts the overall logical structure of a database" and "facilitates database design". The database design for a restaurant application is shown in the ERD below:



### **SYSTEM DESIGN:**

#### 2. Schema Diagram:

A schema diagram is a diagram which contains entities and the attributes that will define that schema. A schema diagram only shows us the database design. It does not show the actual data of the database. Schema can be a single table or it can have more than one table which is related.



### **Normalization In Database**

#### What is normalization?

♣ Normalization is a database design technique that reduces data redundancy and eliminates undesirable characteristics like Insertion, Update and Deletion Anomalies. Normalization rules divides larger tables into smaller tables and links them using relationships. The purpose of Normalisation in SQL is to eliminate redundant (repetitive) data and ensure data is stored logically.

#### **Functional Dependencies:**

#### **Shop Table:**

Shopid → shopname, area, address, rating, contact, did

#### Menu Table:

Pid → Shopid, pname, price, veg\_nonveg

#### **Delivery Agent Table:**

Did → Dname, Dcontact

#### **Bill Table:**

Billid→ shopid, cid, did

#### Customer Table:

Cid→ Cname, Caddress, Carea, Ccontact

### **Database Normal Forms**

Here is a list of Normal Forms in SQL:

- 1NF (First Normal Form)
- 2NF (Second Normal Form)
- 3NF (Third Normal Form)
- 1) For a table to be in first normal form, it must follow the following conditions:
  - 1) Attributes or columns must not repeat.
  - 2) Values must be atomic.
  - 3) Tuples must be unique.

Here all the conditions are satisfied. Hence all tables are in 1<sup>st</sup> NF.

- 2) For a table to be in second normal form, it must follow the following conditions:
- 1) It should be in first normal form.
- 2) All non-prime attributes must follow candidate key.(Only full dependency)

Here all the conditions are satisfied. Hence all tables are in 2<sup>nd</sup> NF.

- 3) For a table to be in third normal form, it must follow the following conditions:
- 1) It should be in second normal form.
- 2) There should be no transitive dependency in the table.

Here all the conditions are satisfied. Hence all tables are in 3<sup>rd</sup> NF.

## **Dataset Used:**

### 1. Shop Table

			SHOP			
SHOPID	SHOPNAME	AREA	ADDRESS	RATING	CONTACT	DID
1001	DOMINOS	MAHIVIR NAGAR	CITY MALL	4.2	9425318945	2001
1002	MACDONALDS	TALWANDI	SKYLINE	4.8	8878541235	2002
1003	SUBWAY	VIGYAN NAGAR	FOUR SEASONS	4.9	7841236512	2003
1004	BURGERKING	DADABADI	CITY MALL	4.2	7851236954	2004
1005	BASKINROBINS	NEW COLONY	CENTRAL SQUARE	4.5	8865147235	2005
1006	PIZZAHUT	RK PURNAM	AKASH MALL	3.2	9456328941	2006
1007	KANHA	TALWANDI	KOTHRI CIRCLE	4.5	9452318941	2007
1008	TAJ	VIGYAN NAGAR	CAD CIRCLE	4	8945213894	2008
1009	FAASOS	DADABADI	AERODROME	3.2	8423651894	2009
1010	RAWAT	MAHIVIR NAGAR	TI NEXT	3.5	8463248123	2010
1011	ROLLSHUB	NEW COLONY	C21	4.2	8432561894	2011
1012	DMB	RK PURNAM	PALASIA	4	8123485695	2012
1013	LMB	MAHIVIR NAGAR	PALADIUM	4.2	8475231586	2013
1014	JMB	DADABADI	WTP	3.2	9452315896	2014
1015	AGRAWAL	TALWANDI	INFINITY	5	9425318944	2015
1016	RJ14	RK PURNAM	GT CENTRAL	4.2	7425318944	2016
1017	NATURALS	NEW COLONY	AB ROAD	1.2	6325712532	2017
1018	BROWNSUGAR	VIGYAN NAGAR	MI ROAD	3	6258423158	2018
1019	ВМВ	VIGYAN NAGAR	LAL CHOWK	4.5	9536217894	2019
1020	BHAGAT	NEW COLONY	TEMPTATIONS	4.2	6528942365	2020
1021	MUDOWEN	RK PURNAM	ELECTRICITY OFFICE	3.2	7452985123	2021
1022	BURGERFARMS	TALWANDI	PALASIA	3.2	8432017503	2022
1023	SODHANI	MAHIVIR NAGAR	GUEST HOUSE	4.2	8423012011	2023
1024	MAHESHWARI	NEW COLONY	C21	2.2	6023125032	2024
1025	NAMO	VIGYAN NAGAR	AIRPORT	2.4	8032506570	2025
1026	VEGBITES	MAHIVIR NAGAR	BUS STAND	2.9	9503241032	2026
1027	NBC	RK PURNAM	DDPS SCHOOL	4.8	9500321235	2027
1028	THELAMA	TALWANDI	SC ROAD	4.2	9530125890	2028
1029	BAKINGO	VIGYAN NAGAR	RALIWAY STATION	4.3	9452032145	2029
1030	EATFIT	NEW COLONY	AB ROAD	4.1	9503215620	2030

create table shop( shopid number(20) NOT NULL, shopname varchar2(20) NOT NULL, area varchar2(20), Address varchar2(20), rating number(2,1), contact number(10), did number(20), primary key(shopid), foreign key(did) references delivery\_agent(did));

### 2. Menu Table

		ME	NU	
SHOPID	PID	PNAME	PPRICE	VEG/NONVEG
1001	10011	GARLIC BREAD	100	VEG
1001	10012	VEG LOADED	250	VEG
1001	10013	MARGHERITA	150	VEG
1001	10014	FARMHOUSE	250	VEG
1001	10015	CHEESY DIP	90	VEG
1002	10021	GARLIC BREAD	150	VEG
1002	10022	VEG LOADED	140	VEG
1002	10023	MARGHERITA	80	VEG
1002	10024	FARMHOUSE	300	VEG
1002	10025	CHEESY DIP	90	VEG
1003	10031	MAXICAN PATTY SUB	150	VEG
1003	10032	TANDOORI CHICKEN	168	NON-VEG
1003	10033	PANEER TIKKA	180	VEG
1003	10034	GARLIC BREAD	162	VEG
1003	10035	VEG LOADED	310	VEG
1004	10041	VEG LOADED	210	VEG
1004	10042	GARLIC BREAD	80	VEG
1004	10043	CHEESY DIP	152	VEG
1004	10044	FARMHOUSE	189	VEG
1004	10045	TANDOORI CHICKEN	90	NON-VEG
1005	10051	FARMHOUSE	150	VEG
1005	10052	CHEESY DIP	60	VEG
1005	10053	MAXICAN PATTY SUB	90	VEG
1005	10054	TANDOORI CHICKEN	180	NON-VEG
1005	10055	PANEER TIKKA	210	VEG
1006	10061	MARGHERITA	150	VEG
1006	10062	СОМВО	500	VEG
1006	10063	TANDOORI PANEER	250	VEG
1006	10064	FARMHOUSE	150	VEG
1006	10065	CORN & CHEESE	150	VEG

create table menu(shopid number(20) NOT NULL, pid number(20) NOT NULL, pname varchar2(20) NOT NULL, pprice number(20) NOT NULL, veg\_nonveg varchar2(20) NOT NULL, primary key (pid)); insert into menu values(1001,10011, 'garlic bread',100, 'veg'); insert into menu values(1001,10012, 'veg loaded',250, 'veg'); insert into menu values(1001,10013, 'margherita',150, 'veg');

### 3. Delivery Agent Table

	DELVERY AGEN	IT
DID	DNAME	DCONTACT
2001	AMIT AGARWAL	9696985478
2002	BHAVYA SOLANKI	8087452102
2003	RUDRA VYAS	55252525
2004	CHAITANYA SHARMA	2147896523
2005	PARAM PATEL	9856325874
2006	MITHALI JAIN	8080808087
2007	ADITYA PATIDAR	9696969696
2008	MANVI MEHTA	6565656565
2009	DHRUV GORE	87878787
2010	DEV PATEL	54545454
2011	SNEH SHARMA	85858585
2012	JAY SHARMA	84848484
2013	YASH KUMAR	8521458741
2014	PRADUMAN GUPTA	9632580000
2015	PRIYANSHU KHANDELWAL	9000054785
2016	YASH MALAV	9632000014
2017	KRISHNA YADAV	8989520000
2018	AYUSH JAIN	800000012
2019	JAI PATEL	8010101012
2020	CHINAR PATEL	9654120125

create table delivery\_agent( did number(20) NOT NULL, dname varchar2(20) NOT NULL, dcontact number(20) , primary key(did));insert into menu values(1001 ,10011 , 'garlic bread',100 , 'veg');

insert into delivery\_agent values(2001,'Amit Agarwal',9865321245) insert into delivery\_agent values(2002,'Bhavya Solanki',7897897897)

### 4. Bill Table

		BILL		
BILLID	ORDER	SHOPID	CID	DID
4001	7001	1001	6001	2001
4002	7002	1002	6002	2002
4003	7003	1003	6003	2003
4004	7004	1004	6004	2004
4005	7005	1005	6005	2005
4006	7006	1006	6006	2006
4007	7007	1007	6007	2007
4008	7008	1008	6008	2008
4009	7009	1009	6009	2009
4010	7010	1010	6010	2010
4011	7011	1011	6011	2011
4012	7012	1012	6012	2012
4013	7013	1013	6013	2013
4014	7014	1014	6014	2014
4015	7015	1015	6015	2015
4016	7016	1016	6016	2016
4017	7017	1017	6017	2017
4018	7018	1018	6018	2018
4019	7019	1019	6019	2019
4020	7020	1020	6020	2020

create table bill(billid number(20) NOT NULL,shopid number(20) NOT NULL,cid number(20) NOT NULL,did number(20) NOT NULL, primary key(billid), foreign key(shopid) references shop(shopid), foreign key(cid) references customer(cid), foreign key(did) references delivery\_agent(did));

insert into bill values(4001,1001,6001,2001)

insert into bill values(4002,1002,6002,2002)

### 5. Customer Table

		CUSTOMER		
CID	CNAME	CADDRESS	CAREA	CCONTACT
6001	AYUSH MITTAL	A-23	DADABADI	9512547852
6002	VEDANT TANGADPALLIWAL	F-44	MAHIVIR NAGAR	8521456321
6003	SHIVAM VIJAYVARGIYA	G-33	<b>NEW COLONY</b>	7412589632
6004	GUNAMRUTH KODE	D-11	<b>RK PURNAM</b>	7458987898
6005	ANSHUM MAHESHWARI	V-66	MAHIVIR NAGAR	8989898747
6006	AMAN SHRIVASTAVA	C-12	DADABADI	8965412547
6007	ADITYA SAHU	Z-67	TALWANDI	9856321458
6008	SAYLI KARWADE	A-55	RK PURNAM	7777854785
6009	HARSHIT MALIK	V-66	NEW COLONY	8989896523
6010	YUKTA GIRASE	C-99	VIGYAN NAGAR	8333332145
6011	CHAHAK SURANA	D-43	VIGYAN NAGAR	7111111125
6012	NAMAN NAGR	F-33	TALWANDI	9854788888
6013	SHRUTI RAI	X-09	VIGYAN NAGAR	9999874555
6014	VIPUL BHATIA	Z-66	DADABADI	7474747422
6015	KRISH MITTAL	Q-1	<b>NEW COLONY</b>	822222145
6016	KARTIK ARORA	Q-3	<b>RK PURNAM</b>	9321321321
6017	AKSHAT SETHIYA	X-1	TALWANDI	888888858
6018	PRIYAM SEKRA	C-09	VIGYAN NAGAR	8965896581
6019	AMAN BHADORIYA	E-08	DADABADI	900000012
6020	KHUSHI AJMERA	T-63	MAHIVIR NAGAR	9000235689
6021	DEVANSH JOSHI	W-96	<b>NEW COLONY</b>	8585850001
6022	PARTH SHARMA	F-39	VIGYAN NAGAR	9000001258
6023	SHIVAM BARANWAL	K-85	NEW COLONY	9562321010
6024	DARSHITA ANYAWADA	A-25	RK PURNAM	9090909090
6025	SHIVANSH SURYA	G-96	TALWANDI	9852012500
6026	SANYAM JAIN	C-105	MAHIVIR NAGAR	9014714714
6027	DAKSH GEHLOT	D-85	NEW COLONY	9323232000
6028	VEDANG BHUSARI	A-55	VIGYAN NAGAR	9856320000
6029	KARTIK MISHRA	C45	MAHIVIR NAGAR	7854120000
6030	CHARYAN SHARMA	K-22	DADABADI	7896541200

create table customer(cid number(20) NOT NULL, cname varchar2(20) NOT NULL, caddress varchar2(20) NOT NULL, carea varchar2(20) NOT NULL, ccontact number(20), primary key(cid));

insert into customer values(6001,'Ayush Mittal','A-23','Dadabadi',9512547852);

Insert into customer values(6002, 'Vedant', 'F-44', 'Mahivir Nagar', 8521456321);

### 1. Representing the shops:

SHOPID	SHOPNAME	AREA	ADDRESS	RATING	CONTACT	DIC
1001	dominos	mahavir nagar	city mall	4.2	9874563200	2001
1002	macdonalds	talwandi	skyline	4.8	6565659874	2002
1003	subway	vigyan nagar	four seasons	4.9	5987452145	2003
1004	burgerking	dadabadi	city mall	4.2	5959595959	2004
1005	buskinrobins	new colony	central square	4.5	7897894545	200
1006	pizzahut	rk puram	akash mall	3.2	4564569852	200
1007	kanha	talwandi	kothri circle	4.5	7854125478	200
1008	taj	vigyan nagar	cad circle	4	9856985654	200
1009	faasos	dadabadi	aerodrome	3.2	5959595900	200
1010	rawat	mahavir nagar	ti next	3.5	9595959565	201
1011	rollshub	new colony	c21	4.2	8974532654	201
SHOPID	SHOPNAME	AREA	ADDRESS	RATING	CONTACT	DII
1012	DMB	rk purnam	palasia	4	9856458741	202
1013	LMB	mahavir nagar	paladium	4.2	8956254125	201
1014	JMB	dadabadi	WTP	3.2	9547896521	201
1015	agrawal	talwandi	infinity	5	9856555555	201
1016	RJ14	rk purnam	GT Central	4.2	7897896555	201
1017	Naturals	New Colony	AB Road	1.2	5252525252	201
1018	Brown Sugar	Vigyan nagar	MI Road	3	8989890000	201
1019	BMB	Vigyan nagar	Lal chowk	4.5	9010125478	201
1020	Bhagat	New Colony	Temptations	4.2	7032578952	202
	Mudowen	rk purnam	electricity office	3.2	9012547852	202
1022	Burgerfarm	talwandi	palasia	3.2	9012300044	202
SHOPID	SHOPNAME	AREA	ADDRESS	RATING	CONTACT	DI
1023	sodhani	mahavir nagar	guest house	4.2	8900015632	202
1024	maheshwari	new colony	c21	2.2	8965000147	202
	namo	vigyan nagar	airport	2.4	8965451254	202
	vegbites	mahavir nagar	bus stand	2.9	9595959565	202
1027		rk purnam	DDPS School		5999987854	202
	Thelama	talwandi	SC Road	4.2	5896541258	202
	bakingo	vigyan nagar			6969598979	202
1030	Eatfit	New colony	Ab road	4.1	5987453200	203

### 2. Display the menu of dominos:

SQL> select a.shopname, b.pprice, b.veg\_nonveg from shop a, menu b where shopname = 'dominos' and a.shopid = b.shopid;

SHOPNAME	PNAME	PPRICE	VEG_NONVEG
dominos	garlic bread	100	veg
dominos	veg loaded	250	veg
dominos	margherita	150	veg
dominos	farmhouse	250	veg
dominos	cheesy dip		veg

9 rows selected.

#### 3. Displaying the shops and their the details where Laddu is sold:

SQL> select a.shopname,a.area,a.address,a.rating,a.contact,b.pprice,b.veg nonveg from shop a,menu b where pname='laddu'and a.shopid=b.shopid; SHOPNAME ADDRESS RATING CONTACT PPRICE VEG NONVEG kothri circle 20 veg talwandi 4.5 7854125478 kanha cad circle 4 9856985654 taj vigyan nagar 60 veg ti next 3.5 9595959565 rawat mahavir nagar rk purnam palasia 4 9856458741 200 veg LMB mahavir nagar paladium 4.2 8956254125 30 veg JMB 3.2 9547896521 dadabadi WTP 20 veg RJ14 GT Central rk purnam 4.2 7897896555 50 veg maheshwari new colony c21 2.2 8965000147 520 veg airport 2.4 8965451254 namo vigyan nagar 50 veg

#### 4. Displaying the shops where rating is equal to or more than 4:

SQL> select distinct a.shopname,a.area,a.address,a.rating,a.contact from shop a,menu b where rating>=4 and a.shopid=b.shopid order by a.shopname; SHOPNAME AREA ADDRESS RATING CONTACT Lal chowk 4.5 9010125478 Vigyan nagar Bhagat New Colony Temptations 4.2 7032578952 DMB rk purnam palasia 4 9856458741 New colony Eatfit Ab road 4.1 5987453200 LMB paladium 4.2 8956254125 mahavir nagar NBC DDPS School 4.8 5999987854 rk purnam RJ14 GT Central rk purnam 4.2 7897896555 Thelama talwandi SC Road 4.2 5896541258 agrawal talwandi infinity 5 985655555 bakingo Railway Station 4.3 6969598979 vigyan nagar burgerking dadabadi city mall 4.2 5959595959 SHOPNAME AREA ADDRESS RATING central square buskinrobins 4.5 7897894545 new colony dominos mahavir nagar city mall 4.2 9874563200 kothri circle 4.5 7854125478 kanha talwandi skyline macdonalds talwandi 4.8 6565659874 rollshub c21 4.2 8974532654 new colony guest house sodhani mahavir nagar 4.2 8900015632 4.9 5987452145 subway vigyan nagar four seasons 4 9856985654 taj vigyan nagar cad circle 19 rows selected.

5. Displaying the shops and their the details where Cheesy dip is sold:

HOPNAME	AREA	ADDRESS	RATING	CONTACT	PPRICE	VEG_NONVEG
ominos	mahavir nagar	city mall	4.2	9874563200	90	veg
acdonalds	talwandi	skyline	4.8	6565659874	90	veg
urgerking	dadabadi	city mall	4.2	5959595959	152	veg
uskinrobins	new colony	central square	4.5	7897894545	60	veg
aasos	dadabadi	aerodrome	3.2	5959595900	60	veg
ollshub	new colony	c21	4.2	8974532654	650	veg

6. Displaying the shops which are in Dadabadi:

```
SQL> select shopname from shop where area = 'dadabadi';

SHOPNAME
------
burgerking
faasos
JMB
```

7. Displaying the product name whose price is less than 50:

SHOPNAME	AREA	RATING	PNAME	PPRICE	VEG_NONVEG
kanha	talwandi	4.5	laddu	 20	veg
kanha	talwandi	4.5	masala dosa	30	veg
rawat	mahavir nagar	3.5	laddu	20	veg
rollshub	new colony	4.2	idli sambhar	40	veg
LMB	mahavir nagar	4.2	laddu	30	veg
JMB	dadabadi	3.2	laddu	20	veg
maheshwari	new colony	2.2	poha	45	veg
vegbites	mahavir nagar	2.9	burger	40	veg
bakingo	vigyan nagar	4.3	patties	49	veg

#### 8. Displaying the delivery agent of buskin robins:

SQL> select b.dname, b	.dcontact,	a.shopname, a.area	rom shop a, delivery_agent b where a.shopname = 'buskinrobins' and a.did = b.did;
DNAME	DCONTACT	SHOPNAME	AREA
Param Patel 7	548754875	buskinrobins	new colony

### 9. Display the bill of Ayush Mittal:

SQL> select c.cid, c.cname,	s.shopid, s.shopname, m.pid, m.pn	ame, m.pprice from shop s natur	al join customer c, menu	m where c.cid = 6001 and s.shopid = 1004 and m.pid = 10044;
CID CNAME	SHOPID SHOPNAME	PID PNAME	PPRICE	
6001 Ayush Mittal	 1004 burgerking	10044 farmhouse	189	

CID CNAME	SHOPID SHOPNAME	PID PNAME	PPRICE
6001 Ayush Mittal	1004 burgerking	10044 farmhouse	189
6001 Ayush Mittal	1004 burgerking	10045 tandoori chicken	90

### 10. Creating the view of orders:

SQL> create view user\_bill as select c.cid, c.cname, s.shopid, s.shopname, m.pid, m.pname, m.pprice from shop s natural join customer c, menu m where c.cid = 6001 and s.shopid = 1004 and (m.pid = 10044 or m.pid = 10045);

CID	CNAME	SHOPID	SHOPNAME	PID	PNAME	PPRICE
6001	Ayush Mittal	1004	burgerking	10044	farmhouse	189
	Ayush Mittal		burgerking	10045	tandoori chicken	96

8. Displaying the details of all the non veg items:

SHOPNAME	AREA	RATING	PNAME	PPRICE		
 subway	vigyan nagar	4.9	tandoori chicken	169		
burgerking	dadabadi	4.2	tandoori chicken	90		
buskinrobins	new colony	4.5	tandoori chicken	180		
taj	vigyan nagar	4	mutton handi	250		
taj	vigyan nagar	4	chicken curry	800		
taj	vigyan nagar	4	fish curry	600		
faasos	dadabadi	3.2	tandoori chicken	500		
rollshub	new colony	4.2	chicken wrap	600		
DMB	rk purnam	4	mutton handi	600		
JMB	dadabadi	3.2	mutton handi	600		

### Conclusion:

➤ Therefore, conclusion of the proposed system is based on user's need and is user centered. The system is developed in considering all issues related to all user which are included in this system. Wide range of people can use this if they know how to operate android smart phone. Various issues related to Mess/Tiffin Service will be solved by providing them a full-fledged system. Thus, implementation of Online Food Ordering system is done to help and solve one of the important problems of people.