A Practical Activity Report Submitted for
Database Management System (UCS310)

Group Number – 2
Sub–Group – 2CO23

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INTRODUCTION
AND
PROJECT OVERVIEW

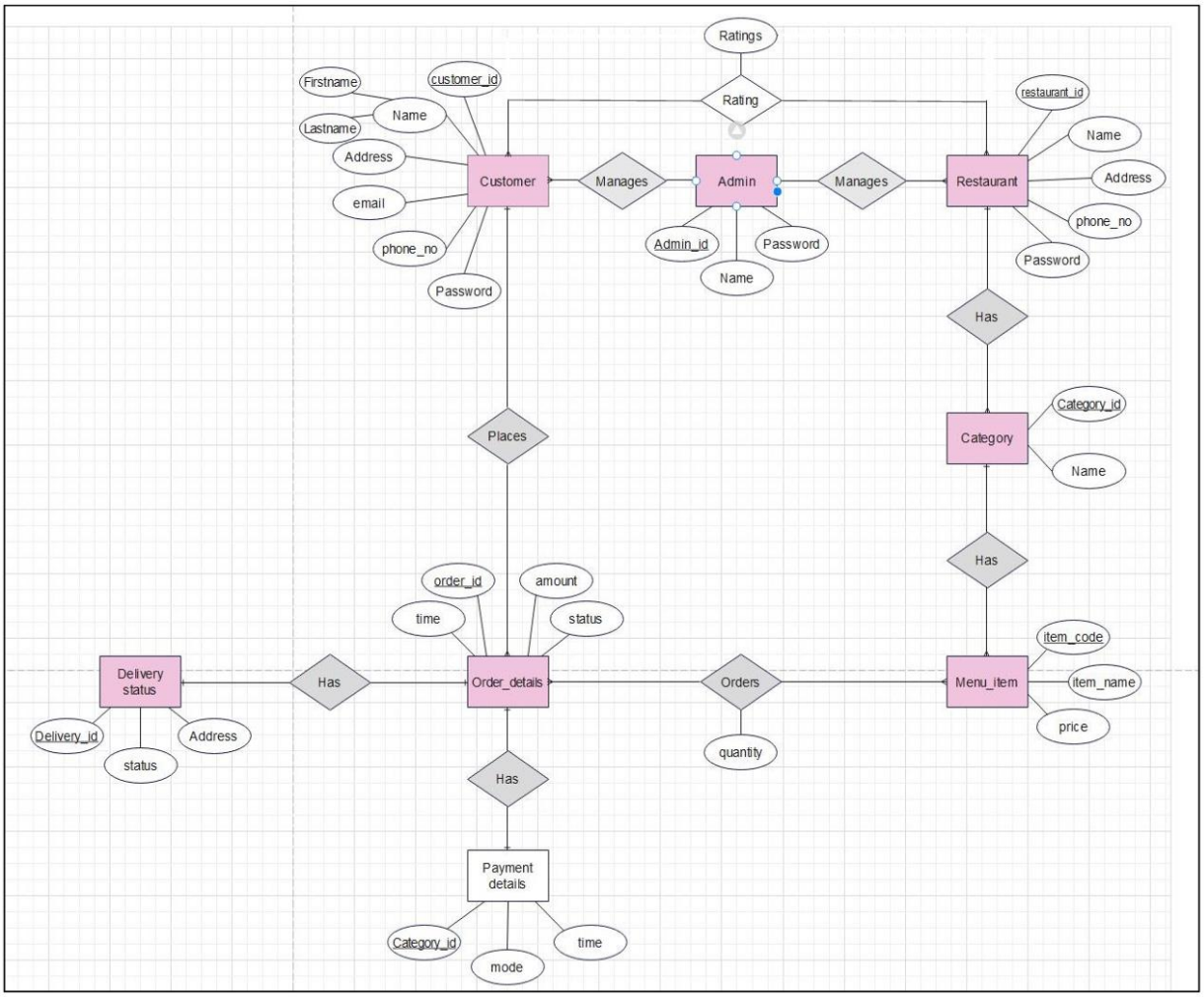
The purpose of this project is to provide an online food delivery system. Online Food ordering system is a process in which one can order various foods and beverages from some local restaurant and hotels through the use of internet, just by sitting at home or any place. And the order is delivered to the told location. Nowadays everyone is having busy schedule whether it is urban area or rural. But talking specifically about the urban areas and deeply about the big cities, people out there are so busy in their life that they don't get enough of time to have their meals properly. As these days women are no less than men, in any field. So, in big cities even wives are working women, therefore mostly the small families manage to have their food ordered from somewhere, as they lack time. Not only this is the case, if we talk about the children in the modern era, they like only fast food or something from the outside. But they ignore eating homemade meals.

So, food ordering system these days has one of the fastest growing markets, though being a new idea. In this project we have developed something like the same to earn from and serve the nation in a much better way possible. Nowadays, people are more regular to dine-in at restaurant for their meals. The online food ordering system provides convenience for the customers that are nothing special but the general busy people of the society. It overcomes the demerits of the manual hotel or mess system and the old-fashioned queuing system. This system enhances the readymade of foods than people.

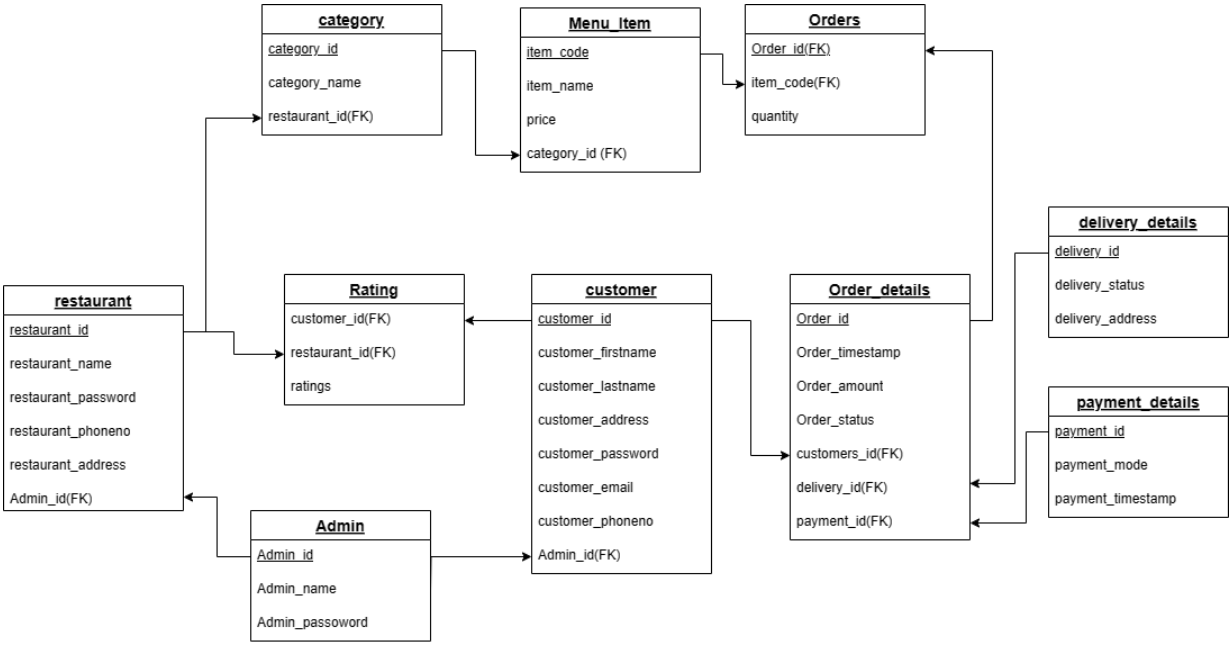
Therefore, this system enhances the speed of getting food in person's plate and quality and manner of taking the order from the customer. It provides a better communication platform. The user's details are stored using the electronic media. The online food ordering system provides the menu online and the customers can easily place the order by just clicking the mouse or by touching a button on their smart phones. Also, with the food ordering system online, people can easily track their orders, and admin can maintain customer's database and advance the food delivery system.

This food ordering system allows the user to select the desired food items from a list of available menu items provided by the local hotel or restaurant. The user can place orders for the food items of their like from the list. The payment can be made online or pay-on-delivery system. The user's details are maintained confidential because it maintains a separate account for each user. An id and password is provided for each user. And several encryption techniques have also been used on the server side to protect the card details. Therefore, it provides a more secured and safe ordering system.

ENTITY-RELATIONSHIP DIAGRAM



ER TO TABLE



NORMALIZATION

•**Customer (Customer_id (KEY), first_name, last_name, address, password, email, phone_no)**

Customer_id = >first_name
Customer_id => last_name
Customer_id => address
Customer_id => password
Customer_id => email
Customer_id => phone_no

The above table is in: -

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
- **BCNF** as it is in 3NF and every determinant is a primary key.

•**Restaurant (Restaurant_id (KEY), Restaurant_name, Restaurant_address,**

Restaurant_password , Restaurant_phone _no)
Restaurant_id => Restaurant_name
Restaurant_id => Restaurant_address
Restaurant_id => Restaurant_password
Restaurant_id => Restaurant_phone _no

The above table is in: -

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key.
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCNF** as it is in 3NF and every determinant is a primary key.

Ratings ((customer_id (KEY), restaurant_id,rating) customer_id,restaurant_id => rating

The above table is in: -

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non- primary key attribute is fully dependent on the primary key.
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCNF** as it is in 3NF and every determinant is a primary key.

•**Admin (Admin_id (KEY), admin_name,admin_password)**
Admin_id=>admin_name
Admin_id=> Admin_password

The above table is in: -

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCN**F as it is in 3NF and every determinant is a primary key.

•**Category (Category_id (KEY), Category_name)**
Category_id => Category_name

The above table is in:-

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCNF** as it is in 3NF and every determinant is a primary key Category_id is the key.

• **Menu_item(item_code (KEY), item_name, price)**
Item_code=>item_name
Item_code=>price

The above table is in: -

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key
- **BCNF** as it is in 3NF and every determinant is a primary key.

•**Order_details(Order_id,Order_time,Order_amount,Order_status)**
Order_id => Order_time
Order_id => Order_amount
Order_id => Order_amount

The above table is in :-

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCNF** as it is in 3NF and every determinant is a primary key.

•**Order(order_id,item_code,quantity)**{Order_id,item_code}=>quantity

The above table is in :-

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCNF** as it is in 3NF and every determinant is a primary key.

- **Order_id,item_code is the composite primary key. Payment_details(payment_id (KEY), payment_mode, payment_time)** payment_id=>payment_mode payment_id=>payment_time

The above table is in: -

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **3NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCNF** as it is in 3NF and every determinant is a primary key.

- **Delivery_details(delivery_id (KEY), delivery_address, delivery_status)** delivery_id=>delivery_address delivery_id=>delivery_status

The above table is in:-

- **1NF** as it does not contain any multivalued attribute.
- **2NF** as it is in 1NF and every non-primary key attribute is fully dependent on the primary key
- **13NF** as it is in 2NF and every non-key attribute is non-transitively dependent on the primary key.
- **BCNF** as it is in 3NF and every determinant is a primary key.

SQL/PLSQL OUTPUT

```
CREATE TABLE Admin(
Admin_id number (8) primary key,
Admin_name varchar(15) NOT NULL,
Admin_password varchar(16) NOT NULL);
INSERT INTO Admin VALUES (01, 'Admin1', 'Admin@1');
select * from Admin;
```

ADMIN_ID	ADMIN_NAME	ADMIN_PASSWORD
1	Admin1	Admin@1

```
CREATE TABLE customer(
customer_id number(8) primary key,
customer_firstname varchar(30) NOT NULL,
customer_lastname varchar(30) NOT NULL,
customer_password varchar(16) NOT NULL,
customer_phoneno varchar(10) NOT NULL,
customer_address varchar(50) NOT NULL,
customer_email varchar(20) NOT NULL,
Admin_id int references Admin(Admin_id)
);

INSERT INTO customer VALUES (01,'Harsh','Mehta','harsh#212',7435068222,'1st Cross,Rammurthy nagar,Bangalore' , 'mehta19@gmail.com',01);
INSERT INTO customer VALUES (02,'Jainam','Shah','Jainu$820',9924567892,'117, Examiner Road, Fort,Mumbai, Maharashtra','jainam33@gmail.com1',01);
INSERT INTO customer VALUES (03,'Ishaan','Dawra','bmw@765',9874578428,'1723,Opp. Clock Tower Ludhiana,Punjab','ishaan@gmail.com',01);
INSERT INTO customer VALUES (04,'James','Heckins','Dodge@985',8902345789,'Bee H-138, Kodambakkam Road,Chennai, Karnataka','james23@gmail.com',01);
INSERT INTO customer VALUES (05,'Muskanpreet','Kaur','lovi@123',9934654319,'854,Guru Nanak Nagar Amritsar, Punjab','muskan@gmail.com',01);
INSERT INTO customer VALUES (06,'Karanpreet','Singh','rocket@123',7734688001,'Opp. Satsang Bhawan,Beas,Punjab','karan12@gmail.com',01);
INSERT INTO customer VALUES (07,'Divyanka','Kapoor','Cat@123',9867445890,'A/3, Alpha City,Mumbai,Maharashtra','div3421@gmail.com',01);
INSERT INTO customer VALUES (08,'Rustom','Pavri','Rustom@993',8839950081,'134,14,Nagarathpet Main  Road,Banglore,Karnataka','pavri44@gmail.com',01);
INSERT INTO customer VALUES (09,'Lovish','Singla','love@123',9891444976,' 754 Arjan Dev Nagar,Amritsar,Punjab','lovish50@gmail.com',01);
INSERT INTO customer VALUES (10,'Jogesh','Das','Jogesh@231',8870080010,'854 Gali No.1 Mujessar,Ram Colony,Haryana','dasjogesh5@gmail.com',01);
select * from customer;
```

CUSTOMER_ID	CUSTOMER_FIRSTNAME	CUSTOMER_LASTNAME	CUSTOMER_PASSWORD	CUSTOMER_PHONENO	CUSTOMER_ADDRESS	CUSTOMER_EMAIL	ADMIN_ID
1	Harsh	Mehta	harsh#212	7435068222	1st Cross,Rammurthy nagar,Bangalore	mehta19@gmail.com	1
2	Jainam	Shah	Jainu$820	9924567892	117, Examiner Road, Fort,Mumbai, Maharashtra	jainam33@gmail.com1	1
3	Ishaan	Dawra	bmw@765	9874578428	1723,Opp. Clock Tower Ludhiana,Punjab	ishaan@gmail.com	1
4	James	Heckins	Dodge@985	8902345789	Bee H-138, Kodambakkam Road,Chennai, Karnataka	james23@gmail.com	1
5	Muskanpreet	Kaur	lovi@123	9934654319	854,Guru Nanak Nagar Amritsar, Punjab	muskan@gmail.com	1
6	Karanpreet	Singh	rocket@123	7734688001	Opp. Satsang Bhawan,Beas,Punjab	karan12@gmail.com	1
7	Divyanka	Kapoor	Cat@123	9867445890	A/3, Alpha City,Mumbai,Maharashtra	div3421@gmail.com	1
8	Rustom	Pavri	Rustom@993	8839950081	134,14,Nagarathpet Main Road,Banglore,Karnataka	pavri44@gmail.com	1
9	Lovish	Singla	love@123	9891444976	754 Arjan Dev Nagar,Amritsar,Punjab	lovish50@gmail.com	1
10	Jogesh	Das	Jogesh@231	8870080010	854 Gali No.1 Mujessar,Ram Colony,Haryana	dasjogesh5@gmail.com	1

```
CREATE TABLE restaurant(
Admin_id number(8) references Admin(Admin_id),
restaurant_id number(8) primary key,
restaurant_name varchar(20) NOT NULL,
restaurant_address varchar(50) NOT NULL,
restaurant_password varchar(16) NOT NULL,
restaurant_phoneno varchar(10) NOT NULL
);
INSERT INTO restaurant VALUES(01,111,'China Town','66,Residency,Bengaluru,Karnataka','ct@111',8066606969);
INSERT INTO restaurant VALUES(01,112,'Leaf Hatch','F30,Sampige,Chennai,Tamil Nadu','LHat@112',8762204545);
INSERT INTO restaurant VALUES(01,113,'Spicy Terrace','24,Ashok nagar,Ludhiana,Punjab','SpiT@113',8067189999);
INSERT INTO restaurant VALUES(01,114,'Yay Mumbaar','Raheja Tower, Mumbai,Maharashtra','YaM@114',9458262800);
INSERT INTO restaurant VALUES(01,115,'Boombox','Sector-17 Chandigarh,Punjab','Boom#115',9773818001);
INSERT INTO restaurant VALUES(01,116,'Sowento','Level-8, Connaught Place, New Delhi, Delhi','Sow@116',1141191040);
INSERT INTO restaurant VALUES(01,117,'Taj Hotel','154 Khan Market, India Gate, New Delhi','tajr@117',1166566162);
INSERT INTO restaurant VALUES(01,118,'Haveli','B-Block,Ranjit Avenue,Anritsar,Punjab','haveli@118',4428368333);
INSERT INTO restaurant VALUES(01,119,'Chauki Ghani','Jandiala Rd,Amritsar,Punjab','Cg@119',8054343839);
INSERT INTO restaurant VALUES(01,120,'Kobe sizzler','Main City centre,Gurgaon,Haryana','Kobe@120',8889323457);
select * from restaurant;
```

ADMIN_ID	RESTAURANT_ID	RESTAURANT_NAME	RESTAURANT_ADDRESS	RESTAURANT_PASSWORD	RESTAURANT_PHONENO
1	111	China Town	66,Residency,Bengaluru,Karnataka	ct@111	8066606969
1	112	Leaf Hatch	F30,Sampige,Chennai,Tamil Nadu	LHat@112	8762204545
1	113	Spicy Terrace	24,Ashok nagar,Ludhiana,Punjab	SpiT@113	8067189999
1	114	Yay Mumbaar	Raheja Tower, Mumbai,Maharashtra	YaM@114	9458262800
1	115	Boombox	Sector-17 Chandigarh,Punjab	Boom#115	9773818001
1	116	Sowento	Level-8, Connaught Place, New Delhi, Delhi	Sow@116	1141191040
1	117	Taj Hotel	154 Khan Market, India Gate, New Delhi	tajr@117	1166566162
1	118	Haveli	B-Block,Ranjit Avenue,Anritsar,Punjab	haveli@118	4428368333
1	119	Chauki Ghani	Jandiala Rd,Amritsar,Punjab	Cg@119	8054343839
1	120	Kobe sizzler	Main City centre,Gurgaon,Haryana	Kobe@120	8889323457

```
CREATE TABLE category(
category_id number(8) primary key,
category_name varchar(15) NOT NULL,
restaurant_id number(8) references restaurant(restaurant_id)
);

INSERT INTO category VALUES (201,'SOUTH-INDIAN','112');
INSERT INTO category VALUES (202,'CHINESE','111');
INSERT INTO category VALUES (203,'ALL','115');
INSERT INTO category VALUES (204,'INDONESIAN','113');
INSERT INTO category VALUES (205,'KATHIAWADI','114');
INSERT INTO category VALUES (206,'PUNJABI','118');
INSERT INTO category VALUES (207,'RAJASTHANI','119');
INSERT INTO category VALUES (208,'DESSERTS','120');
INSERT INTO category VALUES (209,'NORTH-INDIAN ','116');
INSERT INTO category VALUES (210,'CONTINENTAL','117');

select * from category;
```

CATEGORY_ID	CATEGORY_NAME	RESTAURANT_ID
201	SOUTH-INDIAN	112
202	CHINESE	111
203	ALL	115
204	INDONESIAN	113
205	KATHIAWADI	114
206	PUNJABI	118
207	RAJASTHANI	119
208	DESSERTS	120
209	NORTH-INDIAN	116
210	CONTINENTAL	117

```sql
CREATE TABLE Menu_items(
item_code number(8) primary key,
item_name varchar(20) NOT NULL,
Price number(8) NOT NULL,
category_id number(8) references category(category_id)
);

INSERT INTO Menu_items VALUES(301,'White Pasta',230,203);
INSERT INTO Menu_items VALUES(302,'Alfredo Pasta',200,203);
INSERT INTO Menu_items VALUES(303,'Tandoori pizza',400,203);
INSERT INTO Menu_items VALUES(304,'Masala dosa',300,201);
INSERT INTO Menu_items VALUES(305,'uttampam',115,201);
INSERT INTO Menu_items VALUES(306,'idli-vada-sambhar',120,201);
INSERT INTO Menu_items VALUES(307,'Amritsari Kulcha',120,206);
INSERT INTO Menu_items VALUES(308,'Paneer parantha',250,206);
INSERT INTO Menu_items VALUES(309,'Bhature Chole',100,209);
INSERT INTO Menu_items VALUES(310,'Dry manchrian',200,202);
INSERT INTO Menu_items VALUES(311,'CHINESE BHEL',150,202);
INSERT INTO Menu_items VALUES(312,'Fried rice',210,202);
INSERT INTO Menu_items VALUES(313,'lasaniya bataka',250,210);
INSERT INTO Menu_items VALUES(314,'rigan no olo',300,210);
INSERT INTO Menu_items VALUES(315,'sev tameta nu shaak',220,205);
INSERT INTO Menu_items VALUES(316,'waffle',220,208);
INSERT INTO Menu_items VALUES(317,'chocolate brownie',115,208);
INSERT INTO Menu_items VALUES(318,'pancakes',120,208);
INSERT INTO Menu_items VALUES(319,'burger',55,203);
INSERT INTO Menu_items VALUES(320,'french fries',100,203);
INSERT INTO Menu_items VALUES(321,'muskabun',25,209);
INSERT INTO Menu_items VALUES(322,'peach mojito ',180,207);
INSERT INTO Menu_items VALUES(323,'hazlenut coffee',135,207);
INSERT INTO Menu_items VALUES(324,'kewi juice',90,207);
INSERT INTO Menu_items VALUES(325,'French toast',100,209);
INSERT INTO Menu_items VALUES(326,'Pancakes ',180,208);
INSERT INTO Menu_items VALUES(327,'Steaks',335,210);

select * from menu_items;
```

ITEM_CODE	ITEM_NAME	PRICE	CATEGORY_ID
301	White Pasta	230	203
302	Alfredo Pasta	200	203
303	Tandoori pizza	400	203
304	Masala dosa	300	201
305	uttampam	115	201
306	idli-vada-sambhar	120	201
307	Amritsari Kulcha	120	206
308	Paneer parantha	250	206
309	Bhature Chole	100	209
310	Dry manchrian	200	202
311	CHINESE BHEL	150	202
312	Fried rice	210	202
313	lasaniya bataka	250	210
314	rigan no olo	300	210
315	sev tameta nu shaak	220	205
316	waffle	220	208
317	chocolate brownie	115	208
318	pancakes	120	208
319	burger	55	203
320	french fries	100	203
321	muskabun	25	209
322	peach mojito	180	207
323	hazlenut coffee	135	207

```sql
CREATE TABLE Payment_details(
payment_id number(8) primary key,
payment_mode varchar(15) NOT NULL,
payment_timestamp timestamp NOT NULL
);
INSERT INTO Payment_details VALUES (501,'COD','27-FEB-2024 10:07:53');
INSERT INTO Payment_details VALUES  (502,'GPay','28-FEB-2024 01:13:13');
INSERT INTO Payment_details VALUES (503,'PayTM','11-MAR-2024 11:12:33');
INSERT INTO Payment_details VALUES (504,'COD','15-MAR-2024 9:06:30');
INSERT INTO Payment_details VALUES (505,'CARD','17-MAR-2024 1:10:22');
INSERT INTO Payment_details VALUES  (506,'COD','20-MAR-2024 5:12:03');
INSERT INTO Payment_details VALUES (507,'CARD','29-MAR-2024 09:08:48');
INSERT INTO Payment_details VALUES (508,'PhonePe','30-MAR-2024 7:17:37');
INSERT INTO Payment_details VALUES(509,'Mobkwik','1-APR-2024 9:19:22');
select * from Payment_details;
```

PAYMENT_ID	PAYMENT_MODE	PAYMENT_TIMESTAMP
501	COD	27-FEB-24 10.07.53.000000 AM
502	GPay	28-FEB-24 01.13.13.000000 AM
503	PayTM	11-MAR-24 11.12.33.000000 AM
504	COD	15-MAR-24 09.06.30.000000 AM
505	CARD	17-MAR-24 01.10.22.000000 AM
506	COD	20-MAR-24 05.12.03.000000 AM
507	CARD	29-MAR-24 09.08.48.000000 AM
508	PhonePe	30-MAR-24 07.17.37.000000 AM
509	Mobkwik	01-APR-24 09.19.22.000000 AM

```sql
CREATE TABLE delivery_details(
delivery_id number(8) primary key,
delivery_address varchar(50) NOT NULL,
delivery_status varchar(30) NOT NULL
);

INSERT INTO delivery_details VALUES (401,'1st Rammurthy nagar,Bangalore','Delivered');
INSERT INTO delivery_details VALUES (402,'Examiner Road,Mumbai','Delivered');
INSERT INTO delivery_details VALUES (403,'1723,Opp. Clock Tower,Ludhiana','Preparing');
INSERT INTO delivery_details VALUES (404,'H-138, bakkam Road,Chennai','Pickedup');
INSERT INTO delivery_details VALUES (405,'854,Guru Nanak Nagar, Amritsar','Delivered');
INSERT INTO delivery_details VALUES (406,'Kaziranga, Meghalaya', 'Preparing');
INSERT INTO delivery_details VALUES (407,'A/3, Alpha City,Mumbai','Preparing');
INSERT INTO delivery_details VALUES (408,'134/135 Nagarathpet,Banglore,Karnataka','Delivered');
INSERT INTO delivery_details VALUES (409,'754 Arjan Dev Nagar,Amritsar','Picked-up');
INSERT INTO delivery_details VALUES (410,'Main City centre,Gurgaon,Haryana','Pickedup');

select * from delivery_details;
```

DELIVERY_ID	DELIVERY_ADDRESS	DELIVERY_STATUS
401	1st Rammurthy nagar,Bangalore	Delivered
402	Examiner Road,Mumbai	Delivered
403	1723,Opp. Clock Tower,Ludhiana	Preparing
404	H-138, bakkam Road,Chennai	Pickedup
405	854,Guru Nanak Nagar, Amritsar	Delivered
406	Kaziranga, Meghalaya	Preparing
407	A/3, Alpha City,Mumbai	Preparing
408	134/135 Nagarathpet,Banglore,Karnataka	Delivered
409	754 Arjan Dev Nagar,Amritsar	Picked-up
410	Main City centre,Gurgaon,Haryana	Pickedup

```sql
CREATE TABLE Rating(
ratings number(8) NOT NULL,
customer_id number(8) references customer(customer_id),
restaurant_id number(8) references restaurant(restaurant_id)
);

INSERT INTO Rating VALUES (3,01,111);
INSERT INTO Rating VALUES (4,02,114);
INSERT INTO Rating VALUES (2,03,117);
INSERT INTO Rating VALUES (4,04,120);
INSERT INTO Rating VALUES (3,06,115);
INSERT INTO Rating VALUES (4,08,113);
INSERT INTO Rating VALUES (3,09,112);
INSERT INTO Rating VALUES (4,01,119);
INSERT INTO Rating VALUES (3,09,116);

select * from Rating;
```

RATINGS	CUSTOMER_ID	RESTAURANT_ID
3	1	111
4	2	114
2	3	117
4	4	120
3	6	115
4	8	113
3	9	112
4	1	119
3	9	116

```sql
CREATE TABLE Order_details(
Order_id number(8) primary key,
Order_time timestamp,
Order_amount number(8) NOT NULL,
Order_status varchar(20) NOT NULL,
customer_id number(8) references customer(customer_id),
delivery_id number(8) references delivery_details(delivery_id),
payment_id number(8) references Payment_details(payment_id),
restaurant_id number(8) references restaurant(restaurant_id)
);
INSERT INTO Order_details VALUES (601,'11-FEB-2024 9:06:30','240','preparing',01,401,501,111);
INSERT INTO Order_details VALUES (602,'28-FEB-2024 10:07:53','230', 'preparing', 06,406,506,114);
INSERT INTO Order_details VALUES (603,'09-MAR-2024 09:08:48','250', 'delivered',04,404,509,119);
INSERT INTO Order_details VALUES (604,'05-MAR-2024 7:17:37','300', 'delivered',08 ,408 ,507, 113);
INSERT INTO Order_details VALUES (605,'02-APR-2024 5:12:03','345', 'delivered',03,409,503,117);
INSERT INTO Order_details VALUES (606,'27-APR-2024 01:13:13','400', 'preparing', 04,404,504,112);
INSERT INTO Order_details VALUES (607,'16-APR-2024 9:19:22','50', 'preparing',09,410,508,120);
Select * from Order_details;
```

ORDER_ID	ORDER_TIME	ORDER_AMOUNT	ORDER_STATUS	CUSTOMER_ID	DELIVERY_ID	PAYMENT_ID	RESTAURANT_ID
601	11-FEB-24 09.06.30.000000 AM	240	preparing	1	401	501	111
602	28-FEB-24 10.07.53.000000 AM	230	preparing	6	406	506	114
603	09-MAR-24 09.08.48.000000 AM	250	delivered	4	404	509	119
604	05-MAR-24 07.17.37.000000 AM	300	delivered	8	408	507	113
605	02-APR-24 05.12.03.000000 AM	345	delivered	3	409	503	117
606	27-APR-24 01.13.13.000000 AM	400	preparing	4	404	504	112
607	16-APR-24 09.19.22.000000 AM	50	preparing	9	410	508	120

```sql
CREATE TABLE Orders(
quantity number(8) NOT NULL,
Order_id number(8) references Order_details(Order_id),
item_code number(8) references Menu_items(item_code)
);
INSERT INTO Orders VALUES (2,601,307);
INSERT INTO Orders VALUES (3,603,305);
INSERT INTO Orders VALUES(2,604,310);
INSERT INTO Orders VALUES (1,605,313);
INSERT INTO Orders VALUES(1,606,301);
INSERT INTO Orders VALUES (3,607,306);
INSERT INTO Orders VALUES(2,608,321);
select * from Orders;
```

QUANTITY	ORDER_ID	ITEM_CODE
2	601	307
3	603	305
2	604	310
1	605	313
1	606	301
3	607	306

```sql
CREATE TABLE Orders(
quantity number(8) NOT NULL,
Order_id number(8) references Order_details(Order_id),
item_code number(8) references Menu_items(item_code)
);
INSERT INTO Orders VALUES (2,601,307);
INSERT INTO Orders VALUES (3,603,305);
INSERT INTO Orders VALUES(2,604,310);
INSERT INTO Orders VALUES (1,605,313);
INSERT INTO Orders VALUES(1,606,301);
INSERT INTO Orders VALUES (3,607,306);
INSERT INTO Orders VALUES(2,608,321);
select * from Orders;
```

QUANTITY	ORDER_ID	ITEM_CODE
2	601	307
3	603	305
2	604	310
1	605	313
1	606	301
3	607	306

PL-SQL QUERIES

- Retrieve details of restaurant whose id is 117

```
1  select * from restaurant where restaurant_id=117;
```

ADMIN_ID	RESTAURANT_ID	RESTAURANT_NAME	RESTAURANT_ADDRESS	RESTAURANT_PASSWORD	RESTAURANT_PHONENO
1	117	Taj Hotel	154 Khan Market, India Gate, New Delhi	tajr@117	1166566162

- Retrieve the item name, price, quantity, order status and total amount of order when menu item matches the order details

```
1  select item_name,price,quantity,order_status,order_amount
2  from Menu_items m,Orders o,Order_details od
3  where m.item_code=o.item_code AND o.order_id=od.order_id
```

ITEM_NAME	PRICE	QUANTITY	ORDER_STATUS	ORDER_AMOUNT
White Pasta	230	1	preparing	230
uttampam	115	3	delivered	345
idli-sambhar	120	3	del ivered	300
aloo-cheese paratha	120	2	Preparing	240
Dry manchrian	200	2	preparing	400
lasaniya bataka	250	1	delivered	250
muskabun	25	2	preparing	50

Download CSV

7 rows selected.

- Modify Table

```
1  alter table customer modify customer_address varchar(60)
```

Table altered.

- Order by

```
1  select * from menu_items order by price;
```

ITEM_CODE	ITEM_NAME	PRICE	CATEGORY_ID
321	muskabun	25	209
319	burger	55	203
324	kewi juice	90	207
325	French toast	100	209
320	french fries	100	203
309	Bhature Chole	100	209
305	uttampam	115	201
317	chocolate brownie	115	208
307	Amritsari Kulcha	120	206
306	idli-vada-sambhar	120	201
318	pancakes	120	208
323	hazlenut coffee	135	207
311	CHINESE BHEL	150	202
322	peach mojito	180	207
326	Pancakes	180	208
310	Dry manchrian	200	202
302	Alfredo Pasta	200	203
312	Fried rice	210	202
316	waffle	220	208
315	sev tameta nu shaak	220	205
301	White Pasta	230	203
313	lasaniya bataka	250	210

- Count and like

```
SELECT COUNT(customer_firstname) from customer where customer_firstname like 'A%' or customer_firstname like 'a%';
select customer_firstname from customer;
```

COUNT(CUSTOMER_FIRSTNAME)
2

Download CSV

CUSTOMER_FIRSTNAME
Harsh
Jainam
Aman
Heer
Akanksha
Karan
Divya
Celia
Johnson
Dhara

Download CSV
10 rows selected.

- Group by and Having

```
select Order_id,max(Order_amount) from Order_details group by Order_id having max(Order_amount)>300;
```

ORDER_ID	MAX(ORDER_AMOUNT)
603	345
604	400

Download CSV
2 rows selected.

- Trigger

```
CREATE OR REPLACE TRIGGER display_price_changes
BEFORE DELETE OR INSERT ON menu_items
FOR EACH ROW
WHEN (new.item_code > 0)
DECLARE
    price_diff NUMBER;
BEGIN
    IF DELETING THEN
        price_diff := :old.price - :new.price;
        DBMS_OUTPUT.PUT_LINE('Old Price: ' || :old.price);
        DBMS_OUTPUT.PUT_LINE('Price Decreased by: ' || price_diff);
    ELSIF INSERTING THEN
        price_diff := :new.price - :old.price;
        DBMS_OUTPUT.PUT_LINE('New Price: ' || :new.price);
        DBMS_OUTPUT.PUT_LINE('Price Increased by: ' || price_diff);
    END IF;
END;
```

```
Trigger created.
```

- To display details of customer

```
declare
C_Id customer.customer_id%type;
C_Fname customer.customer_firstname%type;
C_Lname customer.customer_lastname%type;
C_Pass customer.customer_password%type;
C_Phone customer.customer_phoneno%type;
C_Add customer.customer_address%type;
C_Email customer.customer_email%type;
Cursor x IS select customer_id, customer_firstname, customer_lastname, customer_password, customer_phoneno, customer_address, customer_email from custo
begin
open x;
loop
fetch x into C_Id, C_Fname, C_Lname, C_Pass, C_Phone, C_Add, C_Email;
exit when x%NOTFOUND;
dbms_output.put_line(C_Id||' '||C_Fname||' '||C_Lname||' '||C_Pass||' '||C_Phone||' '||C_Add||' '||C_Email);
end loop;
close x;
end;
```

```
Statement processed.
101 Harsh Mehta harsh@123 7435068222 1st Cross,Rammurthy nagar,Bangalore harsh19@gmail.com
102 Jainam Shah Jainu@123 9924567892 117, Examiner Road, Fort,Mumbai, Maharashtra 1ainam33@gmail.com1
103 Aman Pandya Aman@123 7834578923 L 69 Sector 11,Delhi,Uttar Pradesh-201301 aman@gmail.com
104 Heer Madia Her@123 8902345789 Bee H-138, Kodambakkam Road,Chennai, Tamil Nadu heer1723@gmail.com
105 Akanksha Yadav Akayad@123 9934654001 295 AjRoad:10, West Hydrebad, Andhra Pradesh akuu@gmail.com
106 Karan Punjabi karpun@123 9934688001 Nirmal House Opp Jain Mandir ,Jalandhar,Punjab karan12@gmail.com
107 Divya Mulchandanr divmul@123 9874688001 A/3, Tejpal Ind1 Estate,Andheri (west),Maharashtra div3421@gmail.com
108 Celia Anthony Celia@123 7834654881 134,14,Nagarathpet Main Road,Banglore,Karnataka Celia44@gmail.com
109 Johnson Thomas Jthomas@123 9931888912  A/108 Paldi,Ahmeadabad,Gujrat 1thomas550@gmail.com
110 Dhara Mohan BhatrDhara@1231 9875678001 66 Sector 24 Mujessar,Ram Colony,Delhi,Haryana dbhatt45@gmail.com
```

- To display details of customer with order amount equal to 300

SQL Worksheet

Clear

```
declare
C_Id customer.customer_id%type;
C_Fname customer.customer_firstname%type;
C_Lname customer.customer_lastname%type;
C_Pass customer.customer_password%type;
C_Phone customer.customer_phoneno%type;
C_Add customer.customer_address%type;
C_Email customer.customer_email%type;
O_Amt Order_details.Order_amount%type;
Cursor x IS select C.customer_id, C.customer_firstname, C.customer_lastname, C.customer_password, C.customer_phoneno, C.customer_address, C.customer_email, O.Order_amount
from customer C, Order_details O where O.Order_amount=300;
begin
open x;
loop
fetch x into C_Id, C_Fname, C_Lname, C_Pass, C_Phone, C_Add, C_Email, O_Amt;
exit when x%NOTFOUND;
dbms_output.put_line(C_Id||' '||C_Fname||' '||C_Lname||' '||C_Pass||' '||C_Phone||' '||C_Add||' '||C_Email||' '||O_Amt);
end loop;
close x;
end;
```

```
Statement processed.
101 Harsh Mehta harsh@123 7435068222 1st Cross,Rammurthy nagar,Bangalore harsh19@gmail.com 300
102 Jainam Shah Jainu@123 9924567892 117, Examiner Road, Fort,Mumbai, Maharashtra 1ainam33@gmail.com1 300
103 Aman Pandya Aman@123 7834578923 L 69 Sector 11,Delhi,Uttar Pradesh-201301 aman@gmail.com 300
104 Heer Madia Her@123 8902345789 Bee H-138, Kodambakkam Road,Chennai, Tamil Nadu heer1723@gmail.com 300
105 Akanksha Yadav Akayad@123 9934654001 295 AjRoad:10, West Hydrebad, Andhra Pradesh akuu@gmail.com 300
106 Karan Punjabi karpun@123 9934688001 Nirmal House Opp Jain Mandir ,Jalandhar,Punjab karan12@gmail.com 300
107 Divya Mulchandanr divmul@123 9874688001 A/3, Tejpal Ind1 Estate,Andheri (west),Maharashtra div3421@gmail.com 300
108 Celia Anthony Celia@123 7834654881 134,14,Nagarathpet Main Road,Banglore,Karnataka Celia44@gmail.com 300
109 Johnson Thomas Jthomas@123 9931888912  A/108 Paldi,Ahmeadabad,Gujrat 1thomas550@gmail.com 300
110 Dhara Mohan BhatrDhara@1231 9875678001 66 Sector 24 Mujessar,Ram Colony,Delhi,Haryana dbhatt45@gmail.com 300
```

- To display details of customer with rating more than 3

```
DECLARE
    v_customer_id   customer.customer_id%TYPE;
    v_firstname     customer.customer_firstname%TYPE;
    v_lastname      customer.customer_lastname%TYPE;
    v_password      customer.customer_password%TYPE;
    v_phoneno       customer.customer_phoneno%TYPE;
    v_address       customer.customer_address%TYPE;
    v_email         customer.customer_email%TYPE;
    v_admin_id      customer.Admin_id%TYPE;

    CURSOR customer_cursor (rating_threshold NUMBER) IS
        SELECT c.customer_id,
               c.customer_firstname,
               c.customer_lastname,
               c.customer_password,
               c.customer_phoneno,
               c.customer_address,
               c.customer_email,
               c.Admin_id
        FROM customer c
             JOIN Rating r ON c.customer_id = r.customer_id
        WHERE r.ratings > rating_threshold;

    customer_record customer_cursor%ROWTYPE;

BEGIN
    OPEN customer_cursor(3);

    FETCH customer_cursor INTO customer_record;

    WHILE customer_cursor%FOUND LOOP
        v_customer_id := customer_record.customer_id;
        v_firstname := customer_record.customer_firstname;
        v_lastname := customer_record.customer_lastname;
        v_password := customer_record.customer_password;
        v_phoneno := customer_record.customer_phoneno;
        v_address := customer_record.customer_address;
        v_email := customer_record.customer_email;
        v_admin_id := customer_record.Admin_id;

        DBMS_OUTPUT.PUT_LINE('Customer ID: ' || v_customer_id);
        DBMS_OUTPUT.PUT_LINE('First Name: ' || v_firstname);
        DBMS_OUTPUT.PUT_LINE('Last Name: ' || v_lastname);
        DBMS_OUTPUT.PUT_LINE('Password: ' || v_password);
        DBMS_OUTPUT.PUT_LINE('Phone Number: ' || v_phoneno);
        DBMS_OUTPUT.PUT_LINE('Address: ' || v_address);
        DBMS_OUTPUT.PUT_LINE('Email: ' || v_email);
        DBMS_OUTPUT.PUT_LINE('Admin ID: ' || v_admin_id);
        DBMS_OUTPUT.PUT_LINE('----------------------------------------');

        FETCH customer_cursor INTO customer_record;
    END LOOP;

    CLOSE customer_cursor;
END;
/
```

```
Statement processed.
Customer ID: 1
First Name: Harsh
Last Name: Mehta
Password: harsh#212
Phone Number: 7435068222
Address: 1st Cross,Rammurthy nagar,Bangalore
Email: mehta19@gmail.com
Admin ID: 1
----------------------------------------
Customer ID: 2
First Name: Jainam
Last Name: Shah
Password: Jainu$820
Phone Number: 9924567892
Address: 117, Examiner Road, Fort,Mumbai, Maharashtra
Email: jainam33@gmail.com1
Admin ID: 1
----------------------------------------
Customer ID: 4
First Name: James
Last Name: Heckins
Password: Dodge@985
Phone Number: 8902345789
Address: Bee H-138, Kodambakkam Road,Chennai, Karnataka
Email: james23@gmail.com
Admin ID: 1
----------------------------------------
Customer ID: 8
First Name: Rustom
Last Name: Pavri
Password: Rustom@993
Phone Number: 8839950081
Address: 134,14,Nagarathpet Main  Road,Banglore,Karnataka
Email: pavri44@gmail.com
Admin ID: 1
----------------------------------------
```

- Exception Handling

```
DECLARE
    temp payment_details.payment_timestamp%TYPE;
BEGIN
    SELECT payment_timestamp INTO temp FROM payment_details WHERE payment_mode = 'PayTM';

    dbms_output.put_line('Timestamp for PayTM payments: ' || TO_CHAR(temp, 'DD-MON-YYYY HH24:MI:SS'));
EXCEPTION
    WHEN no_data_found THEN
        dbms_output.put_line('No data found for payment_mode as PayTM in Payment_details table');
    WHEN others THEN
        dbms_output.put_line('An error occurred: ' || SQLERRM);
END;
/
```