TIM HORTONS

SUBMITTED BY:

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OVERVIEW

Tim Hortons is a quick accessible(web/app database)platform for coffee chain houses or the fast service restaurants.

The customers can search for hot drinks, breakfast menu, sandwiches, cold beverages and soups.

They can also search for an array of baked goods.

They can choose payment options.

The customers can give donations and feedback for the services.

DIFFICULTIES FACED

Designing	ER diagram
Defining	Requirements and functionalities.
Performing	Normalization.
Using	Join on more than two tables to fetch exact data.
Defining	Correct and Unique data without repetition.

WHAT NEW LEARNT?

How to design ER diagram.

How to make query according to requirement and functionalities.

Performing better normalized forms.

Using sub queries and joins on multiple tables to fetch data from the database.

TOOLS

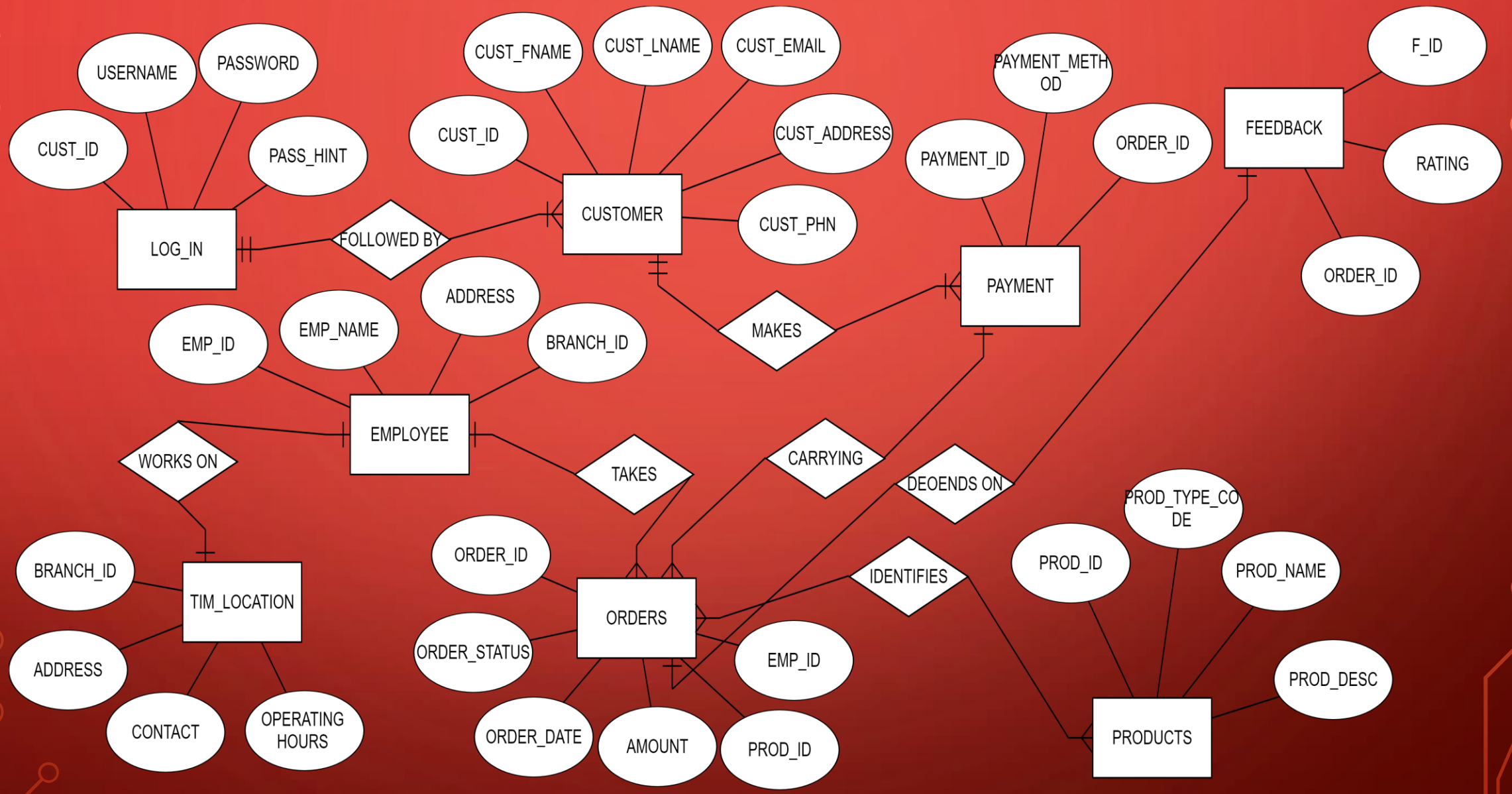
TOOLS USED	PURPOSE
PONYORM	ER DIAGRAM
XAMPP CONTROL PANEL	LAUNCHING MYSQL & APACHE
APACHE(LOCALHOST)	CREATING TABLES
MOCKAROO	CREATING TABLES
MYSQL(DATABASE)	QUERIES
MS POWER POINT	PRESENTATION

LIST OF TABLES

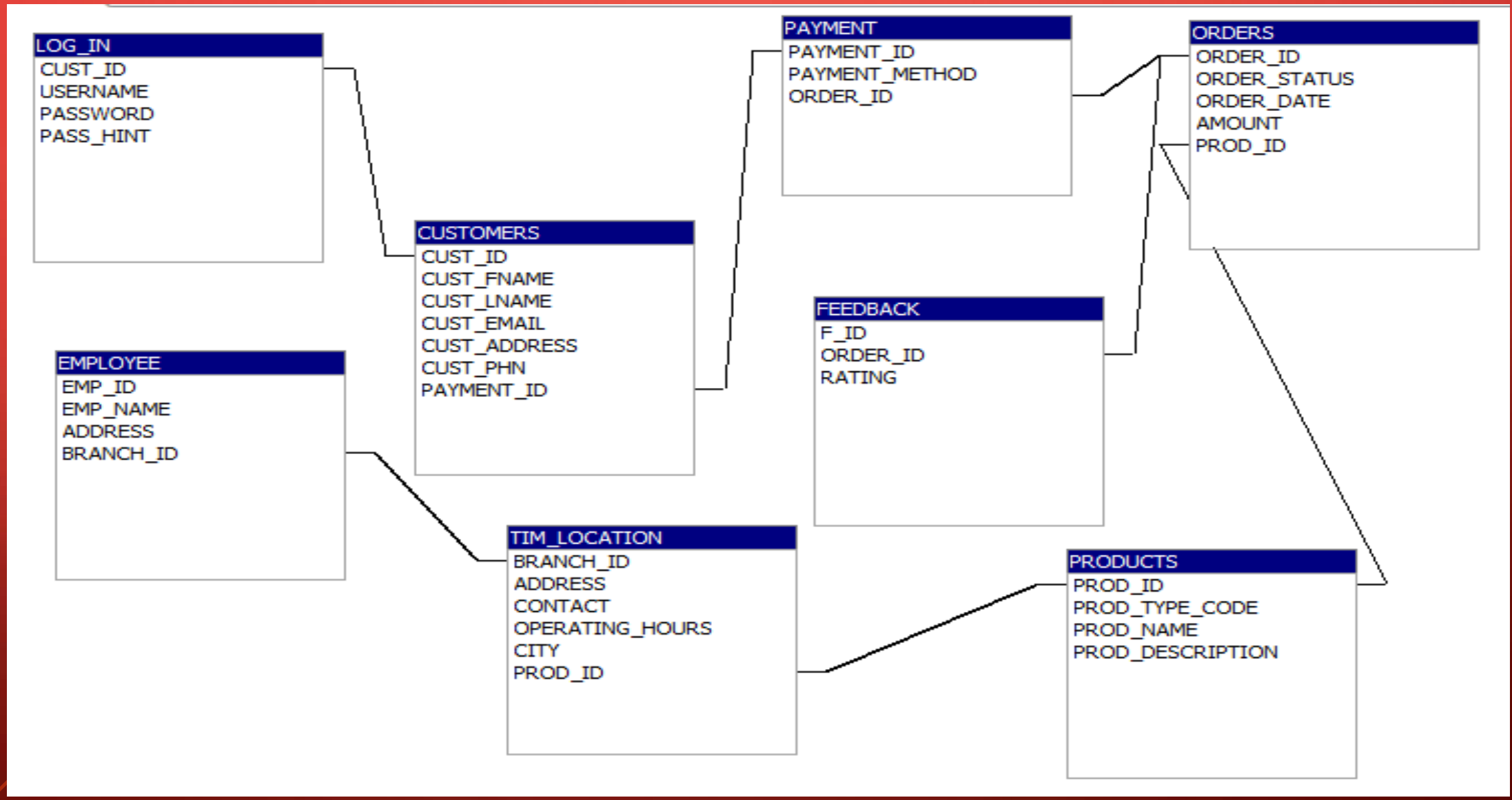
```
mysql> show tables;
+-----------------------+
| Tables_in_termproject |
+-----------------------+
| customers             |
| employee              |
| feedback              |
| log_in                |
| orders                |
| payment               |
| products              |
| tim_location          |
+-----------------------+
8 rows in set (0.00 sec)
```

CUSTOMERS		EMPLOYEES
LOG_IN	ORDERS	FEEDBACK
PAYMENT	PRODUCTS	TIM_LOCATION

ER DIAGRAM


USERNAME
PASSWORD
CUST_ID
PASS_HINT
LOG_IN
FOLLOWED BY
CUST_FNAME
CUST_LNAME
CUST_EMAIL
CUST_ID
CUST_ADDRESS
CUSTOMER
CUST_PHN
PAYMENT_METH OD
PAYMENT_ID
ORDER_ID
PAYMENT
MAKES
F_ID
FEEDBACK
RATING
ORDER_ID
ADDRESS
EMP_ID
EMP_NAME
BRANCH_ID
EMPLOYEE
WORKS ON
TAKES
CARRYING
DEOENDS ON
BRANCH_ID
TIM_LOCATION
ADDRESS
CONTACT
OPERATING HOURS
ORDER_ID
ORDERS
ORDER_STATUS
EMP_ID
ORDER_DATE
AMOUNT
PROD_ID
IDENTIFIES
PROD_TYPE_CO DE
PROD_ID
PROD_NAME
PROD_DESC
PRODUCTS

ER DIAGRAM


LOG_IN
CUST_ID
USERNAME
PASSWORD
PASS_HINT
CUSTOMERS
CUST_ID
CUST_FNAME
CUST_LNAME
CUST_EMAIL
CUST_ADDRESS
CUST_PHN
PAYMENT_ID
PAYMENT
PAYMENT_ID
PAYMENT_METHOD
ORDER_ID
ORDERS
ORDER_ID
ORDER_STATUS
ORDER_DATE
AMOUNT
PROD_ID
FEEDBACK
F_ID
ORDER_ID
RATING
EMPLOYEE
EMP_ID
EMP_NAME
ADDRESS
BRANCH_ID
TIM_LOCATION
BRANCH_ID
ADDRESS
CONTACT
OPERATING_HOURS
CITY
PROD_ID
PRODUCTS
PROD_ID
PROD_TYPE_CODE
PROD_NAME
PROD_DESCRIPTION

STRUCTURE OF TABLES

```
mysql> desc customers;
+--------------+-------------+------+-----+---------+-------+
| Field        | Type        | Null | Key | Default | Extra |
+--------------+-------------+------+-----+---------+-------+
| CUST_ID      | int(11)     | NO   | PRI | NULL    |       |
| CUST_FNAME   | varchar(50) | YES  |     | NULL    |       |
| CUST_LNAME   | varchar(50) | YES  |     | NULL    |       |
| CUST_EMAIL   | varchar(50) | YES  |     | NULL    |       |
| CUST_ADDRESS | varchar(50) | YES  |     | NULL    |       |
| CUST_PHN     | bigint(10)  | YES  |     | NULL    |       |
+--------------+-------------+------+-----+---------+-------+
6 rows in set (0.00 sec)
```

```
mysql> desc feedback;
+----------+---------+------+-----+---------+-------+
| Field    | Type    | Null | Key | Default | Extra |
+----------+---------+------+-----+---------+-------+
| F_ID     | int(10) | NO   | PRI | NULL    |       |
| ORDER_ID | int(10) | YES  | MUL | NULL    |       |
| RATING   | int(1)  | YES  |     | NULL    |       |
+----------+---------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

STRUCTURE OF TABLES

```
mysql> desc employee;
+-----------+-------------+------+-----+---------+-------+
| Field     | Type        | Null | Key | Default | Extra |
+-----------+-------------+------+-----+---------+-------+
| EMP_ID    | int(10)     | NO   | PRI | NULL    |       |
| EMP_NAME  | varchar(30) | YES  |     | NULL    |       |
| ADDRESS   | varchar(50) | YES  |     | NULL    |       |
| BRANCH_ID | int(10)     | YES  | MUL | NULL    |       |
+-----------+-------------+------+-----+---------+-------+
4 rows in set (0.02 sec)
```

```
mysql> desc tim_location;
+-----------------+-------------+------+-----+---------+-------+
| Field           | Type        | Null | Key | Default | Extra |
+-----------------+-------------+------+-----+---------+-------+
| BRANCH_ID       | int(10)     | NO   | PRI | NULL    |       |
| ADDRESS         | varchar(100)| YES  |     | NULL    |       |
| CITY            | varchar(20) | YES  |     | NULL    |       |
| CONTACT         | varchar(10) | YES  |     | NULL    |       |
| OPERATING_HOURS | varchar(20) | YES  |     | NULL    |       |
+-----------------+-------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

STRUCTURE OF TABLES

```
mysql> desc LOG_IN;
+-----------+--------------+------+-----+---------+-------+
| Field     | Type         | Null | Key | Default | Extra |
+-----------+--------------+------+-----+---------+-------+
| CUST_ID   | int(11)      | YES  | MUL | NULL    |       |
| USERNAME  | varchar(20)  | YES  |     | NULL    |       |
| PASSWORD  | varchar(20)  | YES  |     | NULL    |       |
| PASS_HINT | varchar(100) | YES  |     | NULL    |       |
+-----------+--------------+------+-----+---------+-------+
4 rows in set (0.03 sec)
```

```
mysql> desc orders;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| ORDER_ID     | int(10)       | NO   | PRI | NULL    |       |
| ORDER_STATUS | varchar(10)   | YES  |     | NULL    |       |
| ORDER_DATE   | date          | YES  |     | NULL    |       |
| AMOUNT       | decimal(10,2) | YES  |     | NULL    |       |
| EMP_ID       | int(10)       | YES  | MUL | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

STRUCTURE OF TABLES

```
mysql> desc payment;
+----------------+------------+------+-----+---------+-------+
| Field          | Type       | Null | Key | Default | Extra |
+----------------+------------+------+-----+---------+-------+
| PAYMENT_ID     | int(10)    | NO   | PRI | NULL    |       |
| PAYMENT_METHOD | varchar(20)| YES  |     | NULL    |       |
| ORDER_ID       | int(10)    | YES  | MUL | NULL    |       |
+----------------+------------+------+-----+---------+-------+
3 rows in set (0.00 sec)
```

```
mysql> desc products;
+------------------+------------+------+-----+---------+-------+
| Field            | Type       | Null | Key | Default | Extra |
+------------------+------------+------+-----+---------+-------+
| PROD_ID          | int(10)    | NO   | PRI | NULL    |       |
| PROD_TYPE_CODE   | varchar(50)| NO   |     | NULL    |       |
| PROD_NAME        | varchar(50)| YES  |     | NULL    |       |
| prod_description | varchar(50)| YES  |     | NULL    |       |
+------------------+------------+------+-----+---------+-------+
4 rows in set (0.00 sec)
```

INSERT COMMAND

```
mysql> insert into orders values (11,2,'COMPLETE','2017-03-28',22.85,9);
Query OK, 1 row affected (0.09 sec)

mysql> select * from orders;
+----------+---------+--------------+------------+--------+--------+
| ORDER_ID | CUST_ID | ORDER_STATUS | ORDER_DATE | AMOUNT | EMP_ID |
+----------+---------+--------------+------------+--------+--------+
|        1 |       2 | COMPLETE     | 2017-03-08 |   6.00 |      2 |
|        2 |       2 | PENDING      | 2017-02-10 |   6.00 |      9 |
|        3 |       4 | PENDING      | 2017-02-20 |  16.00 |      2 |
|        4 |       9 | COMPLETE     | 2017-02-08 |   6.00 |      2 |
|        5 |       8 | PENDING      | 2017-02-21 |   8.00 |      1 |
|        6 |       6 | COMPLETE     | 2017-02-05 |   8.00 |      8 |
|        7 |       6 | COMPLETE     | 2017-02-18 |  12.00 |      5 |
|        8 |       3 | PENDING      | 2017-03-01 |   5.00 |      9 |
|        9 |       9 | PENDING      | 2017-03-17 |  15.00 |      6 |
|       10 |      15 | COMPLETE     | 2017-03-16 |  10.00 |      3 |
|       11 |       2 | COMPLETE     | 2017-03-28 |  22.85 |      9 |
+----------+---------+--------------+------------+--------+--------+
11 rows in set (0.00 sec)
```

UPDATE COMMAND

```
mysql> update tim_location set contact=7743835333 where branch_id=1;
Query OK, 1 row affected (0.09 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from tim_location where branch_id=1;
+-----------+-----------------+---------+------------+-------------------+
| BRANCH_ID | ADDRESS         | CITY    | CONTACT    | OPERATING_HOURS   |
+-----------+-----------------+---------+------------+-------------------+
|         1 | 91 Sachs Avenue | Toronto | 7743835333 | 08:00 AM-11:00 PM |
+-----------+-----------------+---------+------------+-------------------+
1 row in set (0.00 sec)
```

UPDATE COMMAND

```
mysql> update employee set branch_id=1 where emp_id in (8,9,10);
Query OK, 3 rows affected (0.12 sec)
Rows matched: 3  Changed: 3  Warnings: 0

mysql> select * from employee;
+--------+----------+------------------------+-----------+
| EMP_ID | EMP_NAME | ADDRESS                | BRANCH_ID |
+--------+----------+------------------------+-----------+
|      1 | Corina   | 629 Swallow Alley      |         1 |
|      2 | Gilles   | 29437 7th Way          |         2 |
|      3 | Dukie    | 17837 Cardinal Place   |         3 |
|      4 | Ethelred | 2979 Dahle Pass        |         4 |
|      5 | Lucky    | 038 Express Trail      |         5 |
|      6 | Cordula  | 670 Melrose Plaza      |         6 |
|      7 | Halsey   | 97686 Dovetail Place   |         7 |
|      8 | Ossie    | 69 Longview Lane       |         1 |
|      9 | Berkeley | 18907 Myrtle Lane      |         1 |
|     10 | Myrtle   | 8 Westerfield Hill     |         1 |
+--------+----------+------------------------+-----------+
10 rows in set (0.00 sec)
```

DELETE COMMAND

```
mysql> delete from feedback where F_ID=8;
Query OK, 1 row affected (0.08 sec)

mysql> select * from feedback;
+------+----------+--------+
| F_ID | ORDER_ID | RATING |
+------+----------+--------+
|    1 |        1 |      4 |
|    2 |        2 |      3 |
|    3 |        3 |      5 |
|    4 |        4 |      3 |
|    5 |        5 |      4 |
|    6 |        6 |      4 |
|    7 |        7 |      1 |
|    9 |        9 |      3 |
|   10 |       10 |      2 |
+------+----------+--------+
9 rows in set (0.00 sec)
```

SELECT STATEMENT

```
mysql> select * from customers;
+---------+------------+------------+------------------------------+----------------------+------------+
| CUST_ID | CUST_FNAME | CUST_LNAME | CUST_EMAIL                   | CUST_ADDRESS         | CUST_PHN   |
+---------+------------+------------+------------------------------+----------------------+------------+
|       1 | Beatriz    | Novakovic  | bnovakovic0@jugem.jp         | 746 Crescent Oaks Park | 3671706712 |
|       2 | Uriah      | Pearch     | upearch1@nyu.edu             | 9 Jackson Court      | 1761654340 |
|       3 | Lion       | Denny      | ldenny2@flavors.me           | 50083 Merrick Street | 5701880398 |
|       4 | Wells      | Remmers    | wremmers3@ucla.edu           | 07789 Hovde Street   | 6856854568 |
|       5 | Letti      | Swabey     | lswabey4@miitbeian.gov.cn    | 6053 Algoma Crossing | 1396847390 |
|       6 | Willette   | Vanyutin   | wvanyutin5@gnu.org           | 73876 School Place   | 2934222305 |
|       7 | Paloma     | Petrushanko | ppetrushanko6@wikispaces.com | 783 Old Gate Road    | 9744775654 |
|       8 | Gifford    | Eskriet    | geskriet7@cdbaby.com         | 5473 Ryan Point      | 7105717408 |
|       9 | Hartwell   | Maddigan   | hmaddigan8@kickstarter.com   | 185 Norway Maple Trail | 9446564858 |
|      10 | Kris       | Elington   | kelington9@loc.gov           | 30347 Barby Junction | 2263147541 |
|      11 | Raul       | Gonsalvez  | rgonsalveza@typepad.com      | 554 Elgar Way        | 1553318335 |
|      12 | Marylou    | MacIlory   | mmacilorybb@photobucket.com  | 946 Prentice Pass    | 9557015238 |
|      13 | Brana      | Fido       | bfidoc@360.cn                | 8 Duke Parkway       | 8863447976 |
|      14 | Vidovik    | Lestor     | vlestord@lycos.com           | 277 Norway Maple Point | 9394596714 |
|      15 | Carol      | Castagne   | ccastagnee@slate.com         | 3576 Jana Junction   | 2795684121 |
+---------+------------+------------+------------------------------+----------------------+------------+
15 rows in set (0.00 sec)
```

SELECT STATEMENT WITH WHERE

```
mysql> select cust_fname from customers where cust_id=12;
+------------+
| cust_fname |
+------------+
| Marylou    |
+------------+
1 row in set (0.00 sec)
```

SELECT WITH WHERE CLAUSE

```
mysql> Select * from customers where cust_fname rlike '^L';
+---------+-----------+-----------+-------------------------+--------------------+-----------+
| CUST_ID | CUST_FNAME | CUST_LNAME | CUST_EMAIL              | CUST_ADDRESS       | CUST_PHN  |
+---------+-----------+-----------+-------------------------+--------------------+-----------+
|       3 | Lion      | Denny     | ldenny2@flavors.me      | 50083 Merrick Street | 5701880398 |
|       5 | Letti     | Swabey    | lswabey4@miitbeian.gov.cn | 6053 Algoma Crossing | 1396847390 |
+---------+-----------+-----------+-------------------------+--------------------+-----------+
2 rows in set (0.00 sec)
```

SELECT WITH COUNT

MAX NUMBER OF ORDERS BY A CUSTOMER

```
mysql> select count(*) as 'Maximum no. of orders',cust_id from orders group by cust_id order by count(*) desc limit 1;
+----------------------+---------+
| Maximum no. of orders | cust_id |
+----------------------+---------+
|                    3 |       2 |
+----------------------+---------+
1 row in set (0.00 sec)
```

INNER-JOIN QUERY

CUSTOMER DETAILS WITH THEIR LOGIN DETAILS

```
mysql> select cust_fname,cust_lname,username from customers inner join log_in on customers.cust_id=log_in.cust_id;
+------------+-------------+------------+
| cust_fname | cust_lname  | username   |
+------------+-------------+------------+
| Beatriz    | Novakovic   | iBeat      |
| Uriah      | Pearch      | pearz      |
| Lion       | Denny       | Lion_denny |
| Wells      | Remmers     | wells      |
| Letti      | Swabey      | swab       |
| Willette   | Vanyutin    | Will       |
| Paloma     | Petrushanko | Oma        |
| Gifford    | Eskriet     | ford       |
| Hartwell   | Maddigan    | Maddigan   |
| Kris       | Elington    | Kris       |
| Raul       | Gonsalvez   | Raul       |
| Marylou    | MacIlory    | Mary       |
| Brana      | Fido        | Fido       |
| Vidovik    | Lestor      | Lestor     |
| Carol      | Castagne    | Carry      |
+------------+-------------+------------+
15 rows in set (0.00 sec)
```

SUB-QUERY

LIST OF CUSTOMERS WHO HAVE PLACED ORDER IN TORONTO

```
mysql> select distinct c.cust_fname,c.cust_lname,c.cust_id from customers c where cust_id in ( select cust_id from orders where emp_id in (select emp_id from employee
where branch_id in(select branch_id from tim_location where city='Toronto')));
+-----------+-----------+---------+
| cust_fname | cust_lname | cust_id |
+-----------+-----------+---------+
| Gifford    | Eskriet    |       8 |
| Uriah      | Pearch     |       2 |
| Wells      | Remmers    |       4 |
| Hartwell   | Maddigan   |       9 |
| Lion       | Denny      |       3 |
+-----------+-----------+---------+
5 rows in set (0.01 sec)
```

SUB-QUERY

ADDRESS OF ALL THE BRANCHES WHICH ARE NOT IN MISSISSAUGA

```
mysql> select address from employee where branch_id not in ( select branch_id from tim_location where city='Mississauge');
+---------------------+
| address             |
+---------------------+
| 629 Swallow Alley   |
| 29437 7th Way       |
| 17837 Cardinal Place |
| 2979 Dahle Pass     |
| 038 Express Trail   |
| 670 Melrose Plaza   |
| 97686 Dovetail Place |
| 69 Longview Lane    |
| 18907 Myrtle Lane   |
| 8 Westerfield Hill  |
+---------------------+
10 rows in set (0.00 sec)
```

SUB-QUERY

CUSTOMERS WHO GAVE A RATING OF 3

```
mysql> select rating,orders.order_id,orders.cust_id,(select cust_fname from customers where customers.cust_id=orders.cust_id) as 'Name' from feedback left join orders o
n feedback.order_id=orders.order_id where rating = 3;
+--------+----------+---------+----------+
| rating | order_id | cust_id | Name     |
+--------+----------+---------+----------+
|      3 |        2 |       2 | Uriah    |
|      3 |        4 |       9 | Hartwell |
|      3 |        9 |       9 | Hartwell |
+--------+----------+---------+----------+
3 rows in set (0.00 sec)
```

SUB-QUERY

DISPLAY THE COUNT OF EMPLOYEES IN A CITY WHERE MORE THEN 3 EMPLOYEES WORK(USING HAVING CLAUSE)

```
mysql> select count(emp_id) as 'No. of employees',(select city from tim_location where tim_location.bran
ch_id=employee.branch_id) as 'City' from employee group by branch_id having count(emp_id) > 3;
+-----------------+---------+
| No. of employees | City    |
+-----------------+---------+
|               4 | Toronto |
+-----------------+---------+
1 row in set (0.00 sec)
```

REFERENCES

- www.lucidchart.com
- https://www.w3schools.com/sql
- https://stackoverflow.com/
- www.mockaroo.com
- https://www.tutorialspoint.com/sql
- https://www.w3resource.com/sql

THANK YOU

QUERIES
&
SUGGESTIONS?....