# Database Management System Project

**Online Food Ordering System** 

# **Table of Contents**

- 1. Abstract
- 2. Requirements Specification
- 3. E-R Diagram
- 4. Table Design with Integrity Constraints
- 5. DDL Queries
- 6. DML Queries
- 7. Sub queries
- 8. Joins
- 9. SQL Functions
- 10. Views
- 11. Conclusion

### **Abstract**

Online food ordering management system is a full stack software used to ease the customer's and restaurants' management. Therefore we propose an Online Food Ordering Management System which can help the customers to get food delivered immediately and can be easily maintained by back-end developers. The proposed system has a user interface, which updates everything with all available options for the customers, orders can be easily managed, status of delivery can be checked, vehicle available for use, products availability and employee information can all be handled under one umbrella.

It gives an effective way to order your food and almost within no time food will be delivered. Customer, he/she has to login with password in their account in order to secure the information details and then they can select his/her favorite food items, place the order, also mention the quantity, also can view order details and finally they can make the payment. The order confirmation is sent to the customer. When the order is placed, it gets stored in the database of the restaurants and the staff can go through the orders and process it efficiently. The order is placed in the queue and updated in the database and returned in real time. This system assists the staff to go through the orders in real time and process it efficiently with minimal errors.

### **Requirement Specifications**

#### **Software Requirements**

Below mentioned are the modules we have used in our project Online food ordering system,

- HTML (Hypertext Markup Language) is the most basic building block of the Web. It
  defines the meaning and structure of web content. Each page contains a series of
  connections to other pages called hyperlinks. Every web page you see on the Internet is
  written using one version of HTML code or another.
- Cascading Style Sheets (CSS) is a simple mechanism for adding styles (e.g., fonts, colors, spacing) to Web documents. CSS defines how HTML elements are to be presented on screen, paper, or in other media. CSS saves a lot of work. It can control the layout of multiple web pages all at once.
- PHP is a server-side scripting language. that is used to develop Static websites or
  Dynamic websites or Web applications. PHP stands for Hypertext Preprocessor, which
  earlier stood for Personal Home Pages. PHP scripts can only be interpreted on a server
  that has PHP installed.

As mentioned above HTML, CSS and PHP are the languages used in this project. As php is a server-side language it requires a server to be interpreted. Therefore, we have used a XAMPP server.

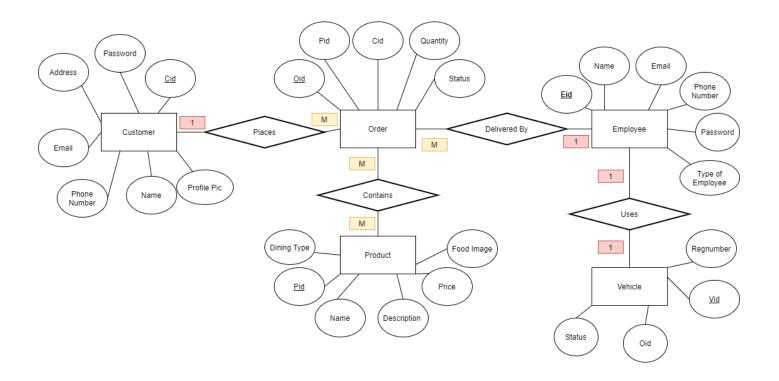
#### **Server Requirements:**

 XAMPP SERVER: Xampp Server refers to a software stack for the Microsoft Windows operating system, created by Romain Bourdon and consisting of the Apache web server, MySQL database and PHP programming language.

#### Database language used in our project:

 MySQL: MySQL is a relational database management system based on SQL – Structured Query Language. The most common use for MySQL, however, is for the purpose of a web database. Standard SQL commands such as ADD, DROP, INSERT and UPDATE can be used in MYSQL.

# **ER Diagram**

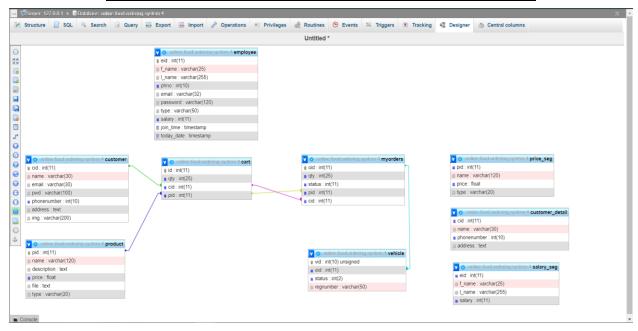


Explanation: ER Diagram stands for Entity Relationship Diagram, also known as ERD is a diagram that displays the relationship of entity sets stored in a database. ER Diagrams contain different symbols that use rectangles to represent entities, ovals to define attributes and diamond shapes to represent relationships. The purpose of ER Diagram is to represent the entity framework infrastructure. Following are the main components and its symbols in ER Diagrams:

- Rectangles: This Entity Relationship Diagram symbol represents entity types
- Ellipses: Symbol represent attributes
- Diamonds: This symbol represents relationship types
- Lines: It links attributes to entity types and entity types with other relationship types
- Primary key: attributes are underlined
- Double Ellipses: Represent multi-valued attributes

One Customer can place many orders and every order contains many or one product and thus many or one product is there in one or more orders. Many orders are delivered by one Employee and every employee uses one vehicle for delivery.

# **Table Design with Integrity Constraints**



Customer(cid,name,email,pwd,phonenumber,address,img)

Product: (pid,dinning\_type,name,description,price,food image)

Employee: (<u>eid,f\_name,l\_name,phno,email,password,type,salary,job\_title,today\_date</u>)

Cart: (<u>id</u>,qty,cid,pid)

Orders: (oid,qty,status,pid,cid)

Vehicle: (vid,oid,status,regnumber)

### **DDL Queries**

DDL is the short name of Data Definition Language, which deals with database schemas and descriptions of how the data should reside in the database.

- CREATE to create a database and its objects like (table, index, views, store procedure, function, and triggers)
- ALTER alters the structure of the existing database
- DROP delete objects from the database
- TRUNCATE remove all records from a table, including all spaces allocated for the records are removed
- COMMENT add comments to the data dictionary
- RENAME rename an object

#### 1. Create table

#### **Customer Table**

CREATE TABLE `customer` ( `cid` int(11) NOT NULL, `name` varchar(30) NOT NULL, `email` varchar(30) NOT NULL, `pwd` varchar(100) NOT NULL, `phonenumber` int(10) NOT NULL, `address` text NOT NULL, `img` varchar(200) NOT NULL);
ALTER TABLE `customer` ADD PRIMARY KEY ( `cid`);
ALTER TABLE `customer` MODIFY `cid` int(11) NOT NULL AUTO\_INCREMENT,
AUTO\_INCREMENT=6;

#### Product table

CREATE TABLE `product` ( `pid` int(11) NOT NULL, `name` varchar(120) NOT NULL, `description` text NOT NULL, `price` int(10) NOT NULL, `file` text NOT NULL, `type` varchar(20) NOT NULL);

ALTER TABLE `product` ADD PRIMARY KEY (`pid`);

ALTER TABLE `product` MODIFY `pid` int(11) NOT NULL AUTO\_INCREMENT, AUTO\_INCREMENT=40;

#### Cart table

CREATE TABLE `cart` ( `id` int(11) NOT NULL, `qty` int(25) NOT NULL, `cid` int(11) NOT NULL, `pid` int(11) NOT NULL);

ALTER TABLE `cart` ADD PRIMARY KEY (`id`), ADD KEY `cid` (`cid`), ADD KEY `pid` (`pid`);

ALTER TABLE `cart` MODIFY `id` int(11) NOT NULL AUTO\_INCREMENT, AUTO\_INCREMENT=170;

ALTER TABLE `cart` ADD CONSTRAINT `cart\_ibfk\_1` FOREIGN KEY (`cid`) REFERENCES `customer` (`cid`) ON UPDATE CASCADE, ADD CONSTRAINT `cart\_ibfk\_2` FOREIGN KEY (`pid`) REFERENCES `product` (`pid`) ON UPDATE CASCADE:

```
WySQL returned an empty result set (i.e. zero rows). (Query took 0.2524 seconds.)

CREATE TABLE `cart` ( 'id' int(11) NOT NULL, `qty` int(25) NOT NULL, `cid' int(11) NOT NULL, `pid' int(11) NOT NULL)

[Edit inline] [Edit] [Create PHP code]

WySQL returned an empty result set (i.e. zero rows). (Query took 0.2907 seconds.)

ALTER TABLE `cart` ADD PRIMARY KEY ('id'), ADD KEY `cid' ('cid'), ADD KEY `pid' ('pid')

[Edit inline] [Edit] [Create PHP code]

WMySQL returned an empty result set (i.e. zero rows). (Query took 0.3170 seconds.)

ALTER TABLE `cart` MODIFY `id` int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=170

[Edit inline] [Edit] [Create PHP code]

WMySQL returned an empty result set (i.e. zero rows). (Query took 0.4378 seconds.)

ALTER TABLE `cart` MODIFY `id` int(11) NOT NULL AUTO_INCREMENT = 170

[Edit inline] [Edit] [Create PHP code]

ALTER TABLE `cart` ADD CONSTRAINT `cart_ibfk_1` FOREIGN KEY ('cid') REFERENCES `customer` ('cid') ON UPDATE CASCADE, ADD CONSTRAINT `cart_ibfk_2` FOREIGN KEY ('pid') REFERENCES `product` ('pid') ON UPDATE CASCADE

[Edit inline] [Edit] [Create PHP code]
```

#### Myorders table

```
CREATE TABLE `myorders` (
 `oid` int(11) NOT NULL,
`qty` int(25) NOT NULL,
`status` int(11) NOT NULL,
 `pid` int(11) NOT NULL,
'cid' int(11) NOT NULL
);
ALTER TABLE 'myorders'
ADD PRIMARY KEY ('oid'),
ADD KEY `pid` (`pid`),
 ADD KEY `cid` (`cid`);
ALTER TABLE 'myorders'
 MODIFY 'oid' int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=98;
ALTER TABLE 'myorders'
 ADD CONSTRAINT `myorders_ibfk_1` FOREIGN KEY (`pid`) REFERENCES `cart` (`pid`),
 ADD CONSTRAINT `myorders_ibfk_2` FOREIGN KEY (`cid`) REFERENCES `cart` (`cid`);
```

```
## WySQL returned an empty result set (i.e. zero rows). (Query took 0.1951 seconds.)

## CREATE TABLE 'myorders' ( 'oid' int(11) NOT NULL, 'qty' int(25) NOT NULL, 'status' int(11) NOT NULL, 'pid' int(11) NOT NULL, 'cid' int(11) NOT NULL)

## WySQL returned an empty result set (i.e. zero rows). (Query took 0.3116 seconds.)

## ALTER TABLE 'myorders' ADD PRIMARY KEY ('oid'), ADD KEY 'pid' ('pid'), ADD KEY 'cid' ('cid')

## WySQL returned an empty result set (i.e. zero rows). (Query took 0.3856 seconds.)

## ALTER TABLE 'myorders' MODIFY 'oid' int(11) NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=98

## Edit inline | [Edit | [ Create PHP code ]

## MySQL returned an empty result set (i.e. zero rows). (Query took 0.4122 seconds.)

## ALTER TABLE 'myorders' ADD CONSTRAINT 'myorders_ibfk_1' FOREIGN KEY ('pid') REFERENCES 'cart' ('pid'), ADD CONSTRAINT 'myorders_ibfk_2' FOREIGN KEY ('cid') REFERENCES 'cart' ('cid') REFERENCES 'cart' ('cid')

## Edit inline | [Edit | [ Create PHP code ]
```

#### Vehicle table

```
CREATE TABLE `vehicle` (
    `vid` int(10) UNSIGNED NOT NULL,
    `oid` int(11) NOT NULL,
    `status` int(2) NOT NULL,
    `regnumber` varchar(50) NOT NULL
);

ALTER TABLE `vehicle`
    ADD PRIMARY KEY (`vid`);

ALTER TABLE `vehicle`
    MODIFY `vid` int(10) UNSIGNED NOT NULL AUTO_INCREMENT,
AUTO_INCREMENT=4;

ALTER TABLE `vehicle`
    ADD CONSTRAINT `vehicle_ibfk_1` FOREIGN KEY (`oid`) REFERENCES `myorders` (`oid`);
```

```
## WySQL returned an empty result set (i.e. zero rows). (Query took 0.1646 seconds.)

## Create TABLE `vehicle` ( `vid` int(10) UNSIGNED NOT NULL, `oid` int(11) NOT NULL, `status` int(2) NOT NULL, `regnumber` varchar(50) NOT NULL)

## Create PHP code |

## WySQL returned an empty result set (i.e. zero rows). (Query took 0.4201 seconds.)

## ALTER TABLE `vehicle` ADD PRIMARY KEY ( `vid`)

## Edit inline | [Edit] [ Create PHP code |

## WySQL returned an empty result set (i.e. zero rows). (Query took 0.6666 seconds.)

## ALTER TABLE `vehicle` MODIFY `vid` int(10) UNSIGNED NOT NULL AUTO_INCREMENT, AUTO_INCREMENT=4

## Edit inline | [Edit] [ Create PHP code ]

## MySQL returned an empty result set (i.e. zero rows). (Query took 0.3647 seconds.)

## ALTER TABLE `vehicle` ADD CONSTRAINT `vehicle_ibfk_1` FOREIGN KEY ( `oid`) REFERENCES `myorders` ( `oid`)

## Edit inline | [Edit] [ Create PHP code ]
```

#### Employee table

CREATE TABLE `employee` ( `eid` int(11) NOT NULL, `name` varchar(30) NOT NULL, `phno` int(10) NOT NULL, `email` varchar(32) NOT NULL, `password` varchar(120) NOT NULL, `type` varchar(50) NOT NULL);

ALTER TABLE 'employee' ADD PRIMARY KEY ('eid');

ALTER TABLE 'employee' MODIFY 'eid' int(11) NOT NULL AUTO\_INCREMENT, AUTO\_INCREMENT=22;

#### 2. Alter Table

#### a. Add column

Alter table employee add salary int(5);

```
✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.0716 seconds.)
Alter table employee add salary int(5)
[Edit inline] [Edit] [Create PHP code]
```

#### b. Modify column

Alter table employee modify salary int(8);

```
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0608 seconds.)

Alter table employee modify salary int(8)

[Edit inline][Edit][Create PHP code]
```

#### c. Drop column

Alter table employee drop column salary;

```
MySQL returned an empty result set (i.e. zero rows). (Query took 0.0926 seconds.)
Alter table employee drop column salary
[Edit inline] [Edit] [Create PHP code]
```

#### 3. Drop Table

#### Cart table

```
WySQL returned an empty result set (i.e. zero rows). (Query took 0.1142 seconds.)

DROP TABLE cart

[Edit inline] [Edit] [Create PHP code]

■
```

#### Myorders table

```
WMySQL returned an empty result set (i.e. zero rows). (Query took 0.3451 seconds.)

DROP TABLE myorders

[Edit inline] [Edit] [Create PHP code]
```

### **DML Queries**

DML is the short name of Data Manipulation Language which deals with data manipulation and includes most common SQL statements such SELECT, INSERT, UPDATE, DELETE, etc., and it is used to store, modify, retrieve, delete and update data in a database.

SELECT - retrieve data from a database

INSERT - insert data into a table

UPDATE - updates existing data within a table

DELETE - Delete all records from a database table

MERGE - UPSERT operation (insert or update)

CALL - call a PL/SQL or Java subprogram

EXPLAIN PLAN - interpretation of the data access path

LOCK TABLE - concurrency Control

#### 1. Insert

#### Customer

INSERT INTO `customer` (`cid`, `name`, `email`, `pwd`, `phonenumber`, `address`, `img`) VALUES

(1, 'aman singh azad', 'aman@gmail.com',

'\$2y\$10\$LdebVs8yLck6.CMPyNT8xeL81QuAvFrAysvQH4dYxnLgzb4g1kPsm', 1226248366, 'abc mumbai', 'profilpic/1575574781\_chef-2.jpg'),

(2, 'debashish sau', 'debashish@gmail.com',

'\$2y\$10\$yKE/py71fQ12ivGhGVikuOITG.Jvo59L.0tPYdxtFyWWKjtYEjeMa', 2147483647, 'xyz surat', 'profilpic/1575632563\_chef-3.jpg'),

(3, 'aryan pandey', 'aryan@testest.com',

'\$2y\$10\$KLQebJQlKmWQMIpVvwCMquKZS2LBPLPMiChBzu83e4UrCjHgbiBE6',

2147483647, 'begusarai', 'profilpic/1575719736 32.jpg'),

(4, 'prabhakar kumar', 'prabhakar@test.com',

'\$2y\$10\$2shlcwaEggL3JVqVbv9JiO7pOquK1635foHo8z/s.woGqOnzltc8S', 2147483647, 'puducherry', 'profilpic/default-avatar.jpg'),

(5, 'Swapnanil', 'Swapnanil @gmail.com', 'helloworld', 666666, 'dubai', 'progiler.jpg');

#### Product

INSERT INTO 'product' ('pid', 'name', 'description', 'price', 'file', 'type') VALUES (25, 'Mutton Whopper Double Patty', 'Two much mutton as delicious flame-grilled patties, farmfresh veggies and mayo is what makes this Mutton Double Whopper a feast for the beast.', 389, '1575672841\_63.jpg', 'breakfast'),

- (26, 'Chicken Whopper Double Patty', 'Our signature Whopper with 7 layers between the buns. Flame Grilled chicken Double Patty, fresh onion, crispy lettuce, juicy tomatoes, tangy gherkins, creamy and smoky sauces with xxl buns. It's Not A Burger, it's a Whopper.', 219, '1575673264\_47.jpg', 'breakfast'),
- (27, 'Mutton Whopper', 'Flame grilled signature Mutton patty Whopper', 259, '1575673319\_25.jpg', 'breakfast'),
- (28, 'Veg Whopper Combo', 'Our signature Whopper with 7 layers between the buns. Extra crunchy veg Patty, fresh onion, crispy lettuce, juicy tomatoes, tangy gherkins, creamy and smoky sauces with xxl buns. It's Not A Burger, it's a Whopper + Fries + Pepsi', 276, '1575673361\_61.jpg', 'lunch'),
- (29, 'Fiery Chicken Combo', 'Too Hot to Handle. Our Spicy & Crunchy Chicken Patty topped with crispy lettuce, juicy tomatoes and creamy sauce with our unique corn dust buns. An indulgent treat from our Kings Collection! Comes with fries + Pepsi', 306, '1575673417\_62.jpg', 'lunch'),
- (31, 'Lite Whopper Jr Veg Combo', 'Our signature Whopper with 7 layers between the buns in a convenient size. Extra crunchy veg Patty, fresh onion, crispy lettuce, juicy tomatoes, tangy gherkins, creamy and smoky sauces. Comes with Fries + Pepsi', 236, '1575673511\_63.jpg', 'lunch'),
- (32, 'Mutton Whopper Combo', 'Make room for our fully loaded Whopper with a juicy, flame-grilled Mutton Patty, tangy pickles, fresh veggies, mayo and ketchup served in fresh 5\" buns. Comes with Fries + Exclusive Pepsi can.', 386, '1575673945\_42.jfif', 'breakfast'),
- (33, 'Cheese Melt down combo', 'Cheese oozing spicy veg patty, veggies and creamy sauce. An indulgent treat from our Kings Collection! Comes with Fries + Pepsi', 296, '1575673983\_42.jfif', 'breakfast');

```
**S rows insented (Query took 0.685 seconds)

**MISSERT JITO 'product' ('pid', 'name', 'description', 'price', 'file', 'type') **VALUES** (25, 'Nutton Whopper Double Patty', 'Two much mutton as delicious flame-grilled patties, farm-fresh veggles and mayo is what makes this Mutton Double Whopper a feast for the beast', J89, '157567284_63.jpg', 'breakfast'), (26, 'Chicken Whopper Double Patty', 'Our signature Whopper with 7 layers between the buns. Flame Grilled chicken Double Patty, fresh onion, crispy lettuce, july tomatoes, tangy grievins, creamy and smoky sauces with xxl buns. It's Not A Burger, it's a Whopper', '218, '1575672364_67.jpg', 'breakfast'), (27, 'Wutton Whopper', 'Flame grilled signature Whopper unith 7 layers between the buns. Extra crunchy veg Patty, fresh onion, crispy lettuce, july tomatoes, tangy gherkins, creamy and smoky sauces with xxl buns. It's Not A Burger, it's a Whopper + Fries + Pepsi', 276, '15756733[...]

**Edd1**
```

#### **Employee Table**

INSERT INTO 'employee' ('eid', 'name', 'phno', 'email', 'password', 'type') VALUES (1, 'admin', 2147483647, 'admin@food.com',

'\$2y\$10\$bhZgfD5jh22aUimjxwvkZue8BsM2SVgCAvJmJFARKfp16XVcA2UnK', 'admin'), (2, 'ghazi', 2147483647, 'ghazi@empl.com',

'\$2y\$10\$bhZgfD5jh22aUimjxwvkZue8BsM2SVgCAvJmJFARKfp16XVcA2UnK', 'employe'), (3, 'aman', 2147483647, 'aman@food.com',

'\$2y\$10\$bhZgfe5jh22aUimjxwvkZue8BsM2SVgCAvJmJFARKfp16XVcA2UnK', 'admin'), (4, 'debs', 2147483647, 'debs@empl.com',

'\$2y\$10\$bhZgfb5jh22aUimjxwvkZue8BsM2SVgCAvJmJFARKfp16XVcA2UnK', 'employe')

```
### 4 rows inserted. (Query took 0.0631 seconds.)

### INTO `employee` (`eid`, `name`, `phno`, `email`, `password`, `type`) VALUES (1, 'admin', 2147483647, 'admin@food.com', 
'$2y$10$bhZgfD5jh22aUimjxwvkZue8BsM2SVgCAVJmJFARKfp16XVCA2UnK', 'admin'), (2, 'ghazi', 2147483647, 'ghazi@empl.com', 
'$2y$10$bhZgfD5jh22aUimjxwvkZue8BsM2SVgCAVJmJFARKfp16XVCA2UnK', 'employe'), (3, 'aman', 2147483647, 'dana@food.com', 
'$2y$10$bhZgfE5jh22aUimjxwvkZue8BsM2SVgCAVJmJFARKfp16XVCA2UnK', 'admin'), (4, 'debs', 2147483647, 'debs@empl.com', 
'$2y$10$bhZgfb5jh22aUimjxwvkZue8BsM2SVgCAVJmJFARKfp16XVCA2UnK', 'employe')

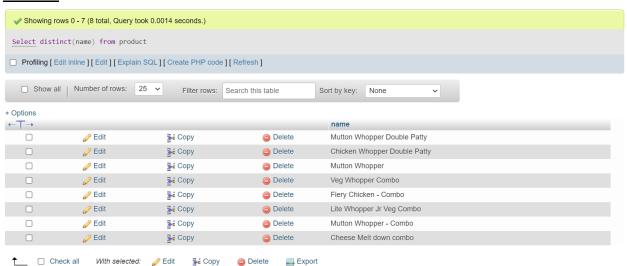
[Edit inline] [Edit] [Create PHP code]
```

#### 2. Select

#### a. Select distinct

Select distinct(name) from product;

#### Product:

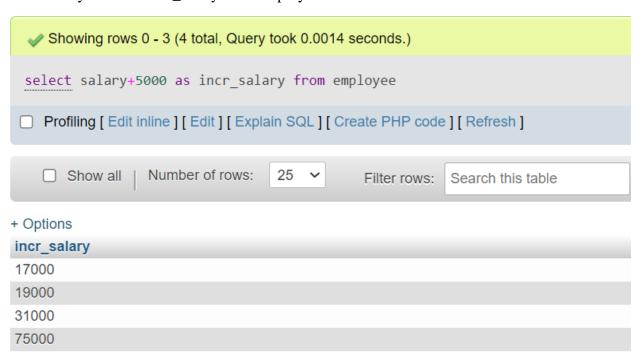


#### Customer:



#### b. Arithmetic in select (eg. Select price\*1.1 from products;) (write at least 2 queries)

select salary+5000 as incr\_salary from employee

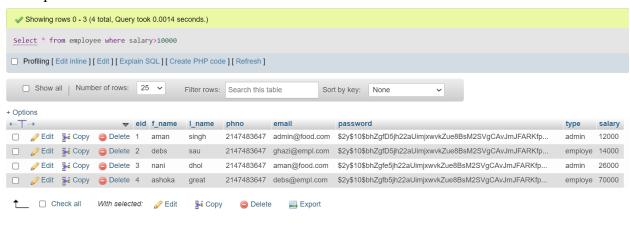


SELECT eid, salary, salary\*0.1 as 'Bonus' from employee;

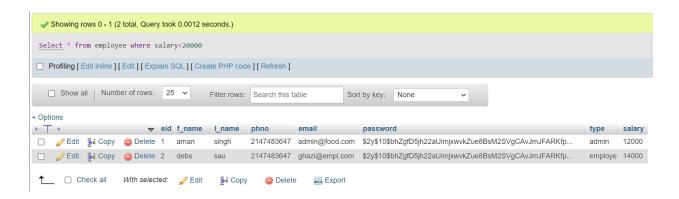


c. Conditional clause (eg. Select \* from person where salary>70000 and department='CS';)Write atleast 5 queries using >,<,=,and, or, not conditions.

#### ">" Operator



#### "<" operator



#### "=" Operator



#### "OR" Operator



#### "AND" Operator



#### d. Select from multiple relations (Cartesian product with conditionals)

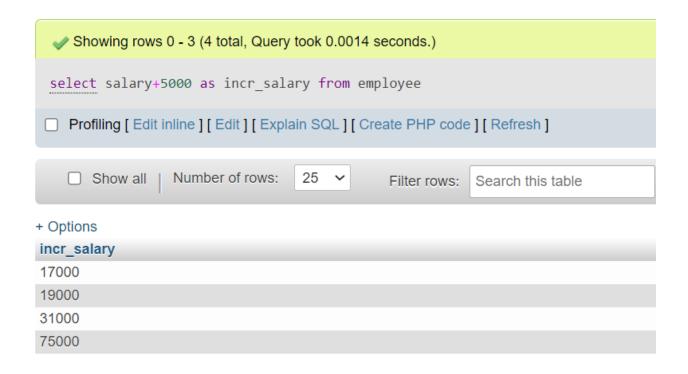
Write atleast 3 queries





#### e. Rename (eg. select salary+5000 as incr\_salary from person;) (atleast 2 queries)

select salary+5000 as incr\_salary from employee



SELECT eid, salary, salary\*0.1 as 'Bonus' from employee;



3. Update (atleast 3 queries with different conditions)

#### 4. Delete, delete..from..where

DELETE FROM customer WHERE address like '%mumbai%';



DELETE FROM product WHERE type like '%breakfast%';

✓ 5 rows affected. (Query took 0.1004 seconds.)

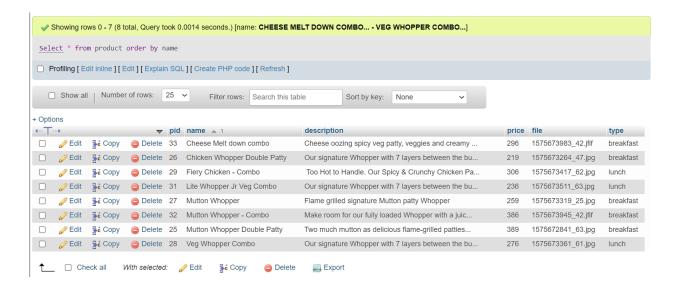
DELETE FROM product WHERE type like '%breakfast%'

[Edit inline][Edit][Create PHP code]

#### 5. Order by clause (asc,desc)

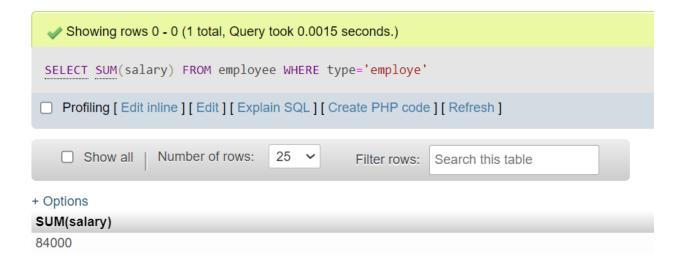
#### Product:

Select \* from 'product' order by name;



#### 6. Aggregate functions (eg. sum, count, average)

SUM:



#### Count:

```
Your SQL query has been executed successfully.

SELECT COUNT(salary) FROM employee WHERE type='admin'

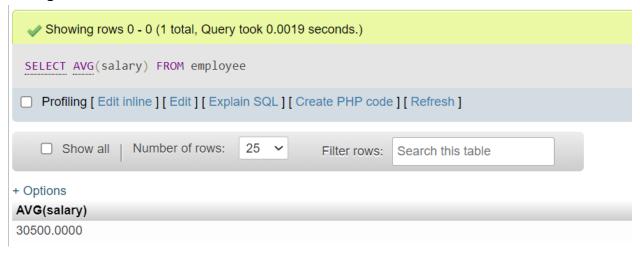
Profiling [Edit inline] [Edit] [Explain SQL] [Create PHP code] [Refresh]

+ Options

COUNT(salary)

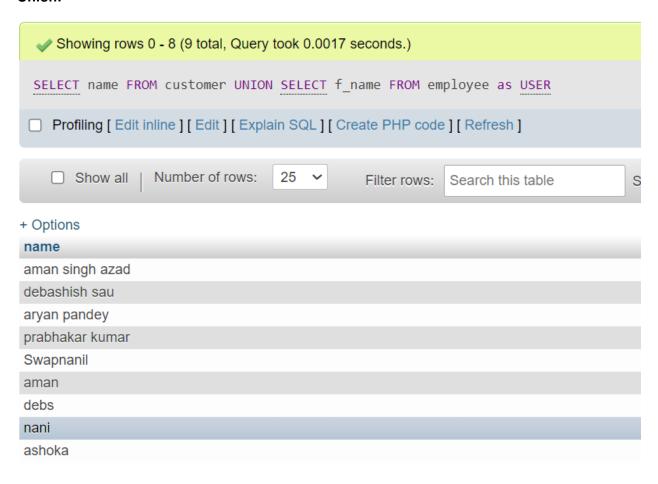
2
```

#### Average:



#### 7. Set operations (union, intersection, except, in, not in)

#### **Union:**



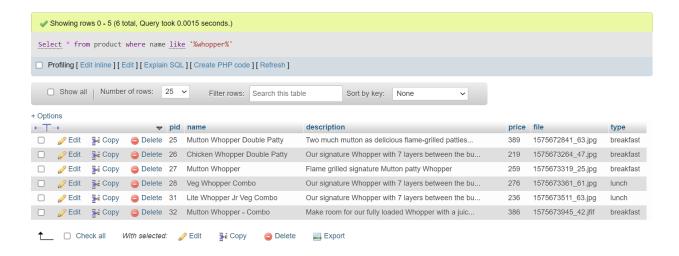
#### Intersect:



### 8. String operations (using 'like'. Eg. select name from person where name like 'a%';)

#### product:

Select \* from 'product' where name like '%Mutton%';



#### 9. Natural join

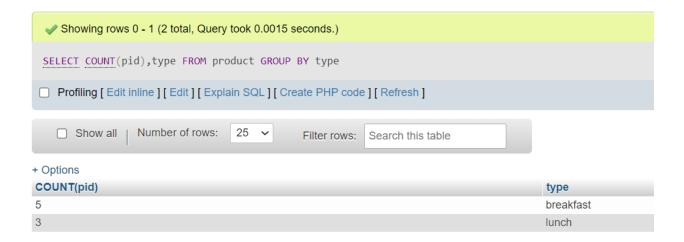


#### 10. Group by, aggregation with group by

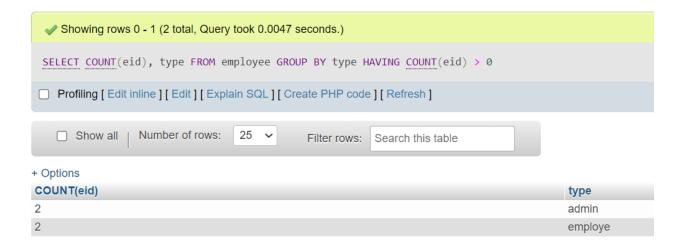
#### Group by:



#### Aggregation with group by:



#### 11. Having clause:



# **Subqueries**

A Subquery or Inner query or a Nested query is a query within another SQL query and embedded within the WHERE clause.

A subquery is used to return data that will be used in the main query as a condition to further restrict the data to be retrieved.

Subqueries can be used with the SELECT, INSERT, UPDATE, and DELETE statements along with the operators like =, <, >, >=, <=, IN, BETWEEN, etc.

There are a few rules that subqueries must follow -

- Subqueries must be enclosed within parentheses.
- A subquery can have only one column in the SELECT clause, unless multiple columns are in the main query for the subquery to compare its selected columns.
- An ORDER BY command cannot be used in a subquery, although the main query can use an ORDER BY. The GROUP BY command can be used to perform the same function as the ORDER BY in a subquery.
- Subqueries that return more than one row can only be used with multiple value operators such as the IN operator.

- The SELECT list cannot include any references to values that evaluate to a BLOB, ARRAY, CLOB, or NCLOB.
- A subquery cannot be immediately enclosed in a set function.
- The BETWEEN operator cannot be used with a subquery. However, the BETWEEN operator can be used within the subquery.
- 1) SELECT \* FROM product WHERE pid IN (SELECT pid FROM product WHERE price > 250);



2) SELECT \* FROM product WHERE pid NOT IN (SELECT pid FROM product WHERE price > 250);



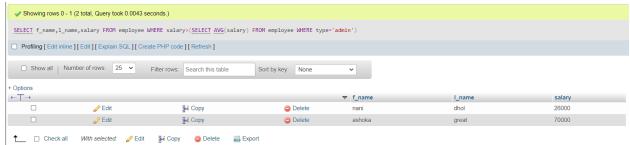
3) SELECT \* FROM product WHERE pid=ANY (SELECT pid FROM product WHERE price > 250);



4) UPDATE myorders SET status=1 WHERE status IN(SELECT status FROM vehicle WHERE oid=97)



5) SELECT f\_name,l\_name,salary FROM employee WHERE salary>(SELECT AVG(salary) FROM employee WHERE type='admin');



6) SELECT name,description,price FROM product WHERE price>(SELECT AVG(price) FROM product WHERE type='breakfast');



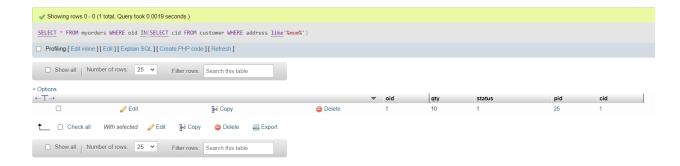
7) SELECT name,description,price FROM product WHERE price<(SELECT AVG(price) FROM product WHERE type='breakfast');



8) SELECT \* FROM customer WHERE cid IN(SELECT cid FROM customer WHERE name like'%pra%');



9) SELECT \* FROM myorders WHERE oid IN(SELECT cid FROM customer WHERE address like'%mum%');



10) SELECT \* FROM myorders WHERE oid NOT IN(SELECT cid FROM customer WHERE address like'%mum%');



# **SQL Functions**

SQL has many built-in functions for performing processing on string or numeric data. Following is the list of all useful SQL built-in functions –

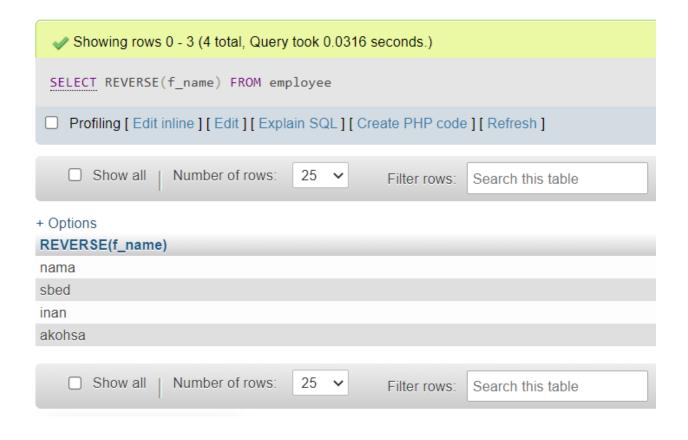
- SQL COUNT Function The SQL COUNT aggregate function is used to count the number of rows in a database table.
- SQL MAX Function The SQL MAX aggregate function allows us to select the highest (maximum) value for a certain column.
- SQL MIN Function The SQL MIN aggregate function allows us to select the lowest (minimum) value for a certain column.

- SQL AVG Function The SQL AVG aggregate function selects the average value for a certain table column.
- SQL SUM Function The SQL SUM aggregate function allows selecting the total for a numeric column.
- SQL SQRT Functions This is used to generate a square root of a given number.
- SQL RAND Function This is used to generate a random number using SQL command.
- SQL CONCAT Function This is used to concatenate any string inside any SQL command.
- SQL Numeric Functions Complete list of SQL functions required to manipulate numbers in SQL.
- SQL String Functions Complete list of SQL functions required to manipulate strings in SQL.

) Con	



#### iii) Reverse:



#### iv) Substring:



#### v) Abs:



#### vi) Ceiling/floor:



#### vii) Current\_timestamp:



#### viii) Dateadd:

Syntax:

SELECT DATEADD(year, 1, '2017/08/25') AS DateAdd;

#### ix) Datediff:

Syntax:

SELECT DATEDIFF(year, '2017/08/25', '2011/08/25') AS DateDiff;

#### x) Getdate

Syntax:

SELECT GETDATE();

### **Views**

A view is nothing more than a SQL statement that is stored in the database with an associated name. A view is actually a composition of a table in the form of a predefined SQL query.

A view can contain all rows of a table or select rows from a table. A view can be created from one or many tables which depends on the written SQL query to create a view.

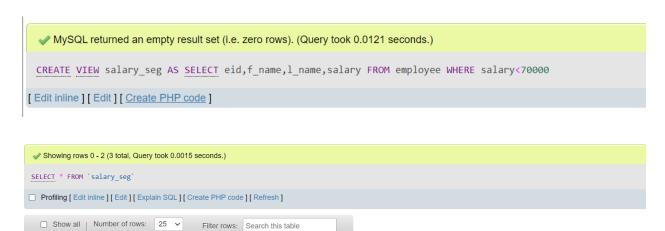
Views, which are a type of virtual tables allow users to do the following -

- Structure data in a way that users or classes of users find natural or intuitive.
- Restrict access to the data in such a way that a user can see and (sometimes) modify exactly what they need and no more.
- Summarize data from various tables which can be used to generate reports.

#### Salary\_seg:

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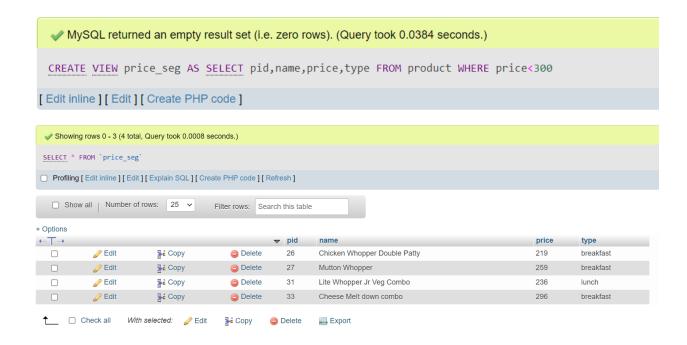
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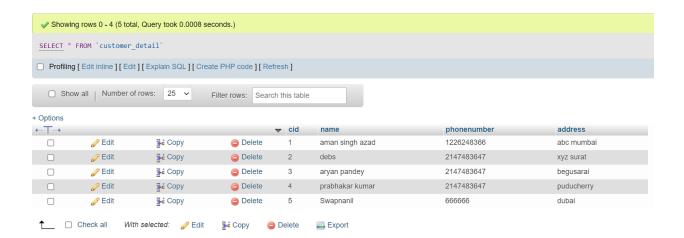


#### Customer\_detail:

✓ MySQL returned an empty result set (i.e. zero rows). (Query took 0.1718 seconds.)

CREATE VIEW customer\_detail AS SELECT cid, name, phonenumber, address FROM customer

[Edit inline] [Edit] [Create PHP code]



# **Conclusion**

The Online food Ordering system project was successfully implemented and presented by the team, for the DBMS course.

The project involved the use of relational databases. It helped us understand concepts behind DBMS and it's real world applications.