

SQL



**A
PROJECT REPORT
On**

**“RETAILERS DETAILS” AND THEIR “SHOP NAMES INFO ”
ANALYSIS USING A SQL**

A report submitted to

Seven Mentors Institute, Pune 2023



Date :

20 April, 2023

Submitted by :

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DECLARATION OF CERTIFICATE

Sub: SQL

DATE: 20 April, 2023

I hereby declare that, The project entitled is an outcome of my own efforts Under the guidance of **Mr. Sagar Gade Sir**. The project is submitted to the **Seven Mentor Institute Pune**. For the partial fulfilment of the “**Structure Query Language Course**” 2023.

I also declare that this project report has not been previously submitted to any other institute.

PLACE: Pune

Mahesh Bhalchandra Lande

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A special thanks to Mrs. Arti Rahulkar for being so helpful and kind during the course completion.

INTRODUCTION

Quotation provided by different suppliers might include different contents, items, formats, etc. To give a brief introduction of the quotation content, we list the items from commonly-used quotation formats and explain the items you need in different stages.

Items in Quotation

- Retailer info: First name, Last name, age , location , product

- Selling price, Profit and Loss.
- Project name: Retailer and Their Shop Info.

TECHNOLOGY USED IN PROJECT

The latest support for working with MySQL is version number v5.8. It contains many essential changes, including new features added and removed, fixed bugs and security issues, etc. This version contains the release history from MySQL 8.0 to MySQL 8.0.21. It is available from April 2018 and ends the support in April 2026.

.

SQL is designed for a specific purpose: to query data contained in a relational database. SQL is a set-based, declarative programming language, not an imperative programming language like C or BASIC. However, extensions to Standard SQL add procedural programming language functionality, such as control-of-flow constructs.

- SQL stands for Structured Query Language
- SQL lets you access and manipulate databases
- SQL became a standard of the American National Standards Institute (ANSI) in 1986, and of the International Organization for Standardization (ISO) in 1987
- SQL can execute queries against a database
- SQL can retrieve data from a database
- SQL can insert records in a database
- SQL can update records in a database
- SQL can delete records from a database

- ❑ SQL can create new databases
- ❑ SQL can create new tables in a database
- ❑ SQL can create stored procedures in a database
- ❑ SQL can create views in a database
- ❑ SQL can set permissions on tables, procedures, and views
- ❑ An RDBMS database program (i.e. MS Access, SQL Server, MySQL)
- ❑ To use a server-side scripting language, like PHP or ASP
- ❑ To use SQL to get the data you want

✚ Some of The Most Important SQL Commands:

- ❑ **SELECT** - extracts data from a database
- ❑ **UPDATE** - updates data in a database
- ❑ **DELETE** - deletes data from a database
- ❑ **INSERT INTO** - inserts new data into a database
- ❑ **CREATE DATABASE** - creates a new database
- ❑ **ALTER DATABASE** - modifies a database
- ❑ **CREATE TABLE** - creates a new table
- ❑ **ALTER TABLE** - modifies a table
- ❑ **DROP TABLE** - deletes a table
- ❑ **CREATE INDEX** - creates an index (search key)

EXPLANATION

Making of the Project

SAMPLE CODES FOR RETAILER DETAILS AND THIER SHOP INFO:

```
CREATE DATABASE shop_info;
```

```
USE Shop_info;
```

```
CREATE TABLE Retailers
```

```
(
```

```
create table retailers (
```

```
ID int primary key ,
```

```
f_name varchar(50) not null,
```

```
l_name varchar(50) not null,
```

```
age int ,
```

```
location varchar(30) not null,
```

```
products varchar(30) not null,
```

```
selling_price varchar(50) not null,
```

```
profit int,
```

```
loss int
```

```
);
```

```
SHOW TABLES;
```

DESC Retailers;

■ SECOND TABLE

Create Table shop_name(

ID int primary key,

Seller_ID int,

Shop_Names Varchar(50),

dep_location varchar(50));Quotation_Amount decimal(10,2),

Customer_No int,

Quotation_Date date,

PRIMARY KEY (Quotation_No)

);

SHOW

■ **INSERTED VALUES INTO FIRST TABLE**

INSERT INTO Retailers;

insert into retailers values(1, 'Mahesh','Lande',22,'pune','RealMe',70000,50000,1000);

insert into retailers values(2,'Aditi','Jadhav',22,'Beed','RealMe',45000,3000,0);

insert into retailers values(3,'Shraddha','Kale',21,'nagar','oppo',30000,2500,2000);

insert into retailers values(4,'Swin','Willa',43,'Pune','Asus TUF',75000,20000,0);

insert into retailers values(5,'Iris','Devine',33,'Mumbai','Dell Vostro',25000,1500,0);

insert into retailers values(6,'Peter','Kewin',40,'Nashik','HP 14s',40000,0,0);

insert into retailers values(7,'Joseph','Alzery',26,'Pune','Asus Vivobook',44000,9000,0);

insert into retailers values(8,'John','Bottom',26,'Mumbai','HP Pavilion', 60000,4000,2000);

insert into retailers values(9,'Stephen','Hwkward',35,'Nashik','Asus Vivobook',50000,15000,500);

insert into retailers values(10, 'Suzy','Yann',45,'pune','Asus TUF',60000, 5000,0);SELECT*FROM Customer;

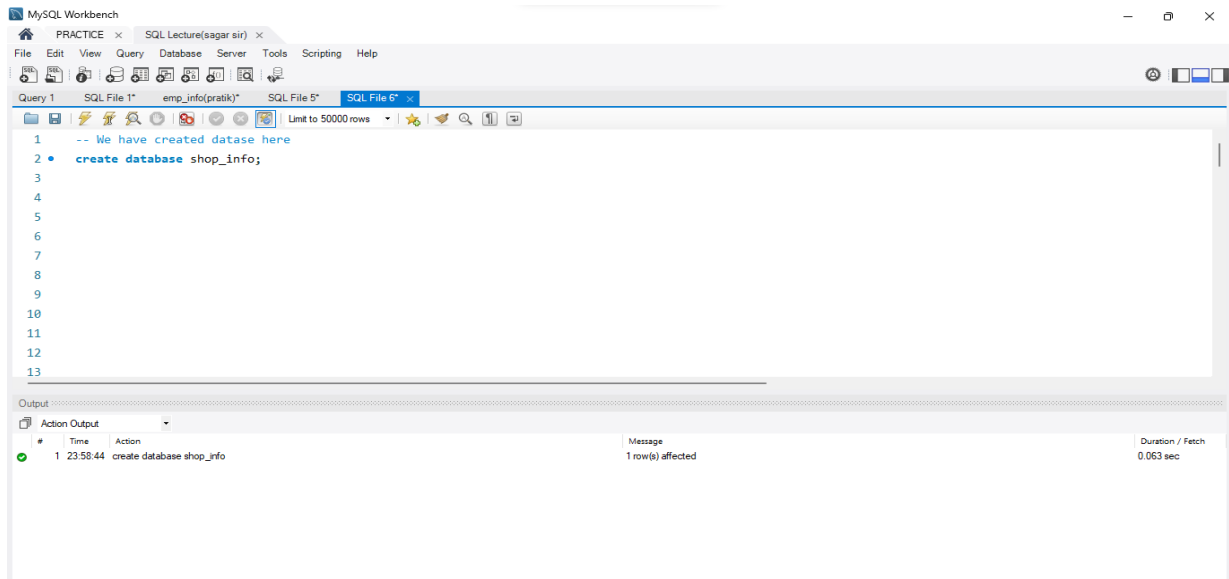
■ **INSERTED VALUES IN SECOND TABLE :**

```
insert into shop_name values (1,101,'Mahii Computers','Pune');  
insert into shop_name values (2,102,'Sai Computers','Beed');  
insert into shop_name values (3,103,'Shraddha Computers','Beed');  
insert into shop_name values (4,104,'Sairaj Computers','Mumbai');  
insert into shop_name values (5,105,'Abhi Computers', 'Mumbai');  
insert into shop_name values (6,106,'Ekta Computers', 'Delhi');  
insert into shop_name values (7,107, 'Sarang Computers','Nashik');  
insert into shop_name values (8,108,'Rupali Computers','Delhi');  
insert into shop_name values (9,109,'Mahesh Computers','Pune');  
insert into shop_name values (10,110,'Shiv Computers','Delhi');SELECT *FROM Quotation;
```

Input/Output Screens:

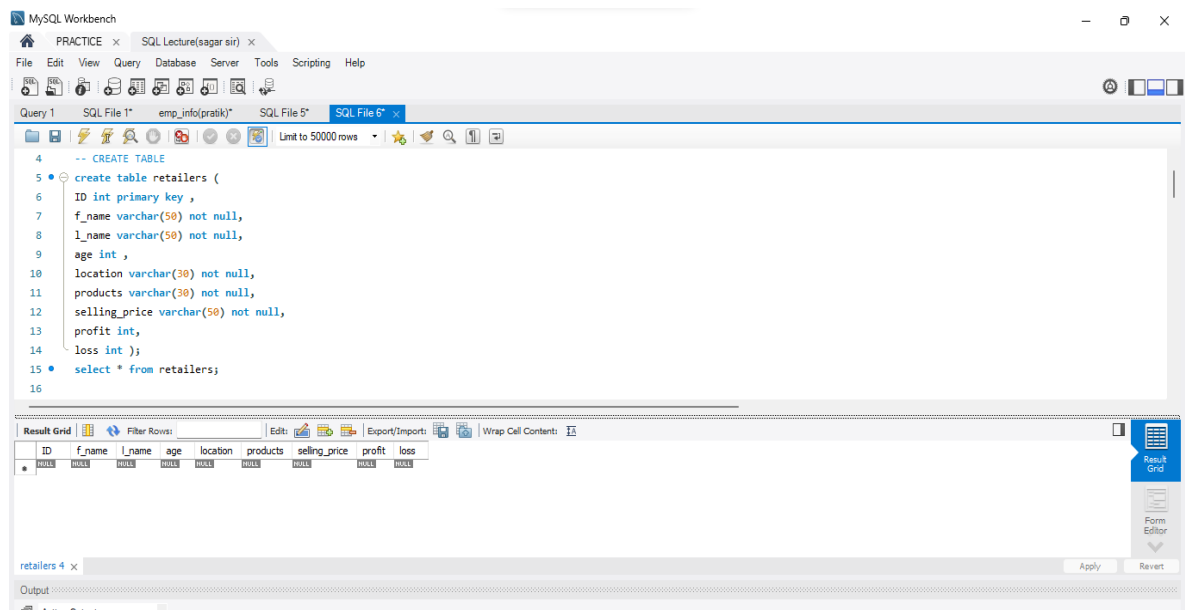
- *We have created a DATABASE here,*

```
CREATE DATABASE shop_info;
```



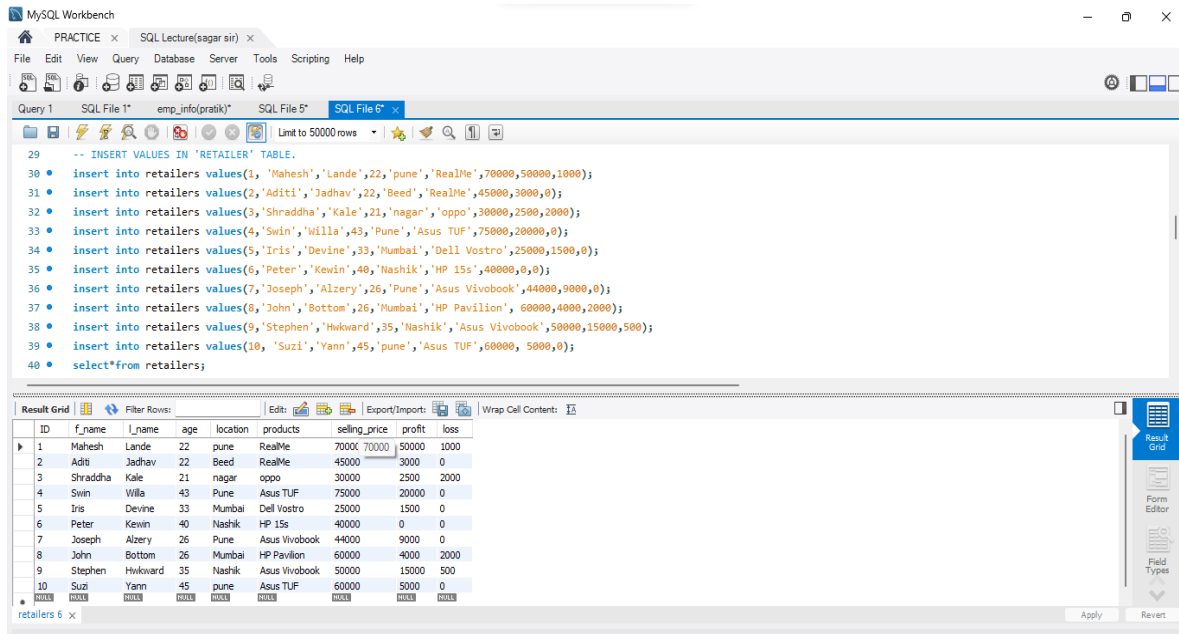
CREATED TABLE < Table_name >

```
CREATE TABLE retailer;
```



■ INSERT VALUES IN TABLE :

INSERT INTO Retailer values (....);



The screenshot shows the MySQL Workbench interface with a SQL editor containing the following queries:

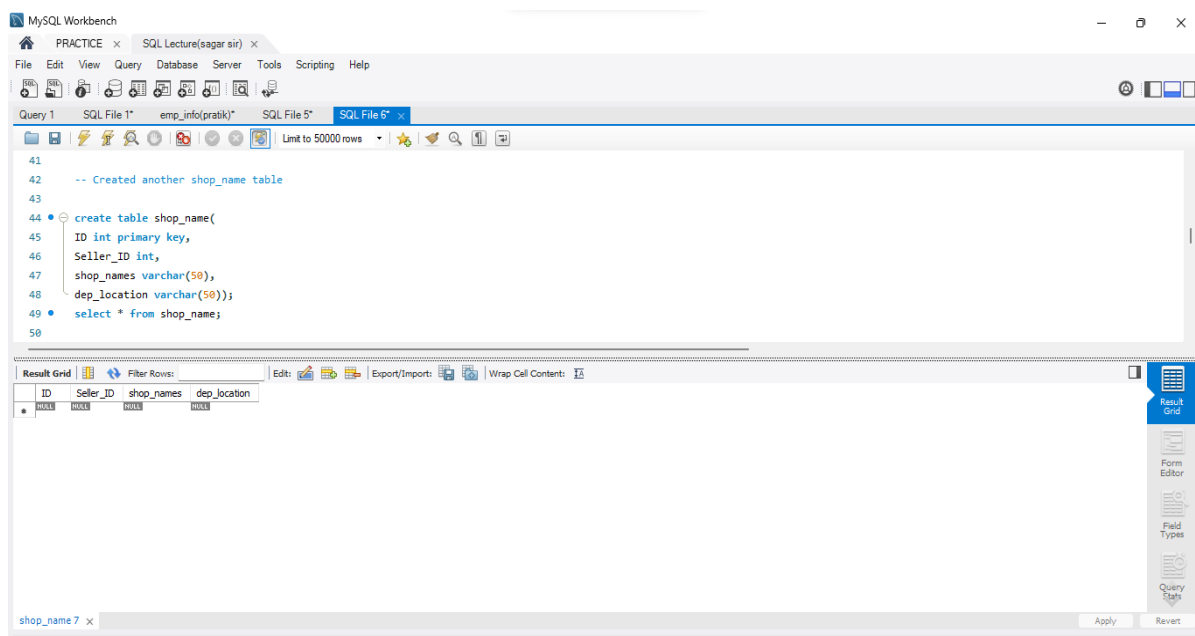
```
-- INSERT VALUES IN 'RETAILER' TABLE.
29
30 • insert into retailers values(1,'Mahesh','Lande',22,'pune','RealMe',70000,50000,1000);
31 • insert into retailers values(2,'Aditi','Jadhav',22,'Beed','RealMe',45000,3000,0);
32 • insert into retailers values(3,'Shraddha','Kale',21,'nagar','oppo',30000,2500,2000);
33 • insert into retailers values(4,'Swin','Willia',43,'Pune','Asus TUF',75000,20000,0);
34 • insert into retailers values(5,'Iris','Devine',33,'Mumbai','Dell Vostro',25000,1500,0);
35 • insert into retailers values(6,'Peter','Kewin',40,'Nashik','HP 15s',40000,0,0);
36 • insert into retailers values(7,'Joseph','Alzery',26,'Pune','Asus Vivobook',44000,9000,0);
37 • insert into retailers values(8,'John','Bottom',26,'Mumbai','HP Pavilion', 60000,4000,2000);
38 • insert into retailers values(9,'Stephen','Hwkward',35,'Nashik','Asus Vivobook',50000,15000,500);
39 • insert into retailers values(10,'Suzi','Yann',45,'pune','Asus TUF',60000, 5000,0);
40 • select*from retailers;
```

The Result Grid below shows the data inserted into the 'retailers' table:

ID	f_name	l_name	age	location	products	selling_price	profit	loss
1	Mahesh	Lande	22	pune	RealMe	70000	50000	1000
2	Aditi	Jadhav	22	Beed	RealMe	45000	3000	0
3	Shraddha	Kale	21	nagar	oppo	30000	2500	2000
4	Swin	Willia	43	Pune	Asus TUF	75000	20000	0
5	Iris	Devine	33	Mumbai	Dell Vostro	25000	1500	0
6	Peter	Kewin	40	Nashik	HP 15s	40000	0	0
7	Joseph	Alzery	26	Pune	Asus Vivobook	44000	9000	0
8	John	Bottom	26	Mumbai	HP Pavilion	60000	4000	2000
9	Stephen	Hwkward	35	Nashik	Asus Vivobook	50000	15000	500
10	Suzi	Yann	45	pune	Asus TUF	60000	5000	0

TO CREATE SECOND TABLE :

CREATE TABLE shop_info



The screenshot shows the MySQL Workbench interface with a SQL editor containing the following query:

```
-- Created another shop_name table
41
42
43
44 • create table shop_name(
45   ID int primary key,
46   Seller_ID int,
47   shop_names varchar(50),
48   dep_location varchar(50));
49 • select * from shop_name;
50
```

The Result Grid below shows the structure of the 'shop_name' table:

ID	Seller_ID	shop_names	dep_location
----	-----------	------------	--------------

Query 1 : Display the Name and Products of 'retails' in table

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
67
68 -- Display the name and product of 'retailer' table
69 • select f_name, products from retailers;
70
71
```

The Result Grid displays the following data:

f_name	products
Mahesh	RealMe
Aditi	RealMe
Shradha	oppo
Swin	Asus TUF
Iris	Dell Vostro
Peter	HP 15s
Joseph	Asus Vivobook
John	HP Pavilion
Stephen	Asus Vivobook
Suzi	Asus TUF

The Action Output pane shows the following log:

#	Time	Action	Message	Duration / Fetch
43	00:13:25	insert into shop_name values (10,110,'Shiv Computers','Delhi')	1 row(s) affected	0.031 sec
44	00:13:33	select * from shop_name LIMIT 0, 50000	10 row(s) returned	0.000 sec / 0.000 sec
45	00:14:31	select f_name, products from retailer LIMIT 0, 50000	31 row(s) returned	0.000 sec / 0.000 sec
46	00:15:00	select f_name, products from retailers LIMIT 0, 50000	10 row(s) returned	0.000 sec / 0.000 sec

Query 2 : Show the second highest 'Profit' of product

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
82
83 -- Execute the selected portion of the script or everything, if there is no selection
84 • select * from retailers order by profit desc limit 1,1;
85
86
```

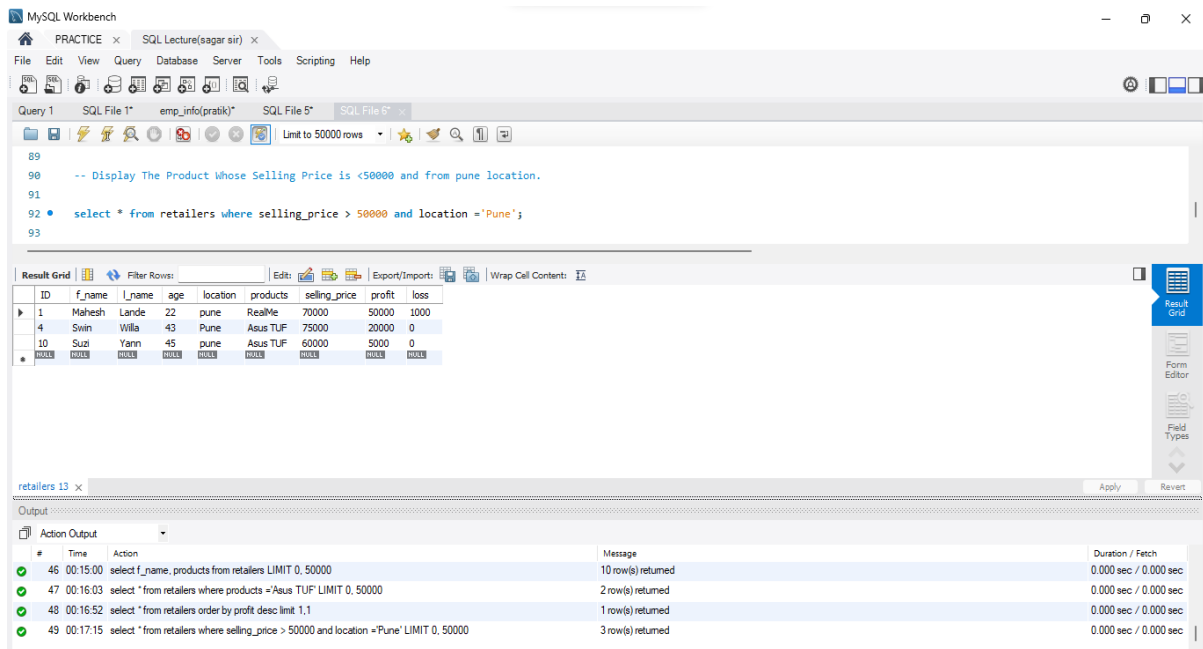
The Result Grid displays the following data:

ID	f_name	l_name	age	location	products	selling_price	profit	loss
4	Swin	Wills	43	Pune	Asus TUF	75000	20000	0

The Action Output pane shows the following log:

#	Time	Action	Message	Duration / Fetch
45	00:14:31	select f_name, products from retailer LIMIT 0, 50000	31 row(s) returned	0.000 sec / 0.000 sec
46	00:15:00	select f_name, products from retailers LIMIT 0, 50000	10 row(s) returned	0.000 sec / 0.000 sec
47	00:16:03	select * from retailers where products = 'Asus TUF' LIMIT 0, 50000	2 row(s) returned	0.000 sec / 0.000 sec
48	00:16:52	select * from retailers order by profit desc limit 1,1	1 row(s) returned	0.000 sec / 0.000 sec

Query 3 : Display the Product whose selling price is greater than 50000 and from pune location.



MySQL Workbench interface showing Query 3 execution. The query is:

```
-- Display The Product Whose Selling Price is <50000 and from pune location.
select * from retailers where selling_price > 50000 and location = 'Pune';
```

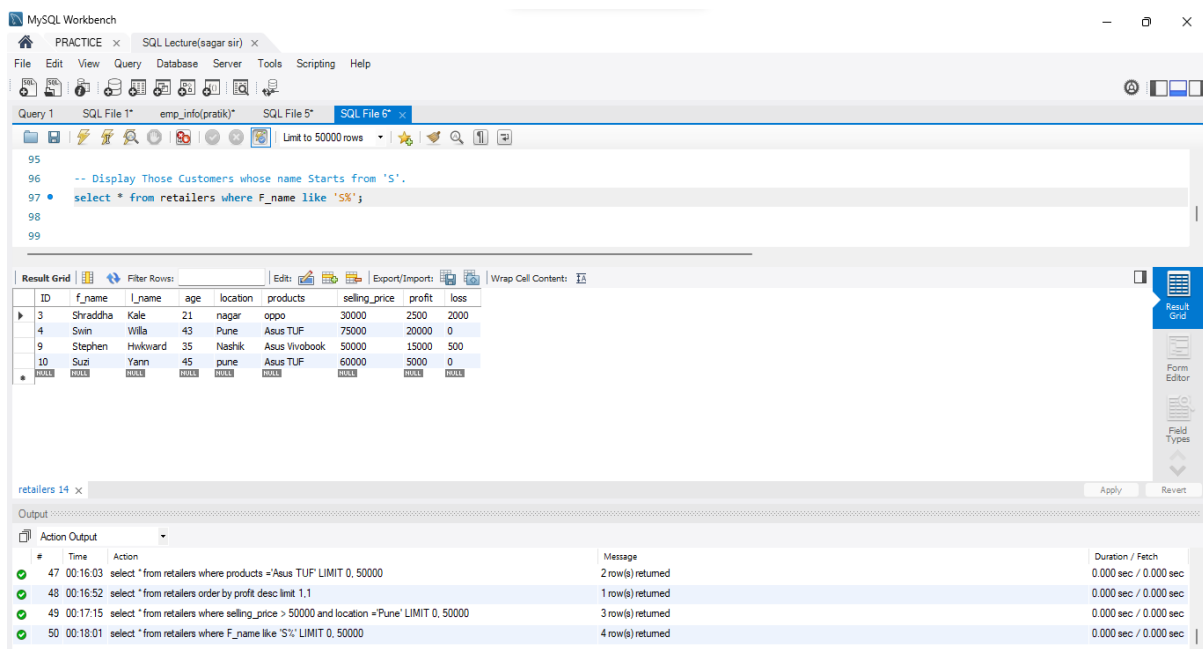
The Result Grid displays the following data:

ID	f_name	l_name	age	location	products	selling_price	profit	loss
1	Mallesh	Lande	22	pune	RealMe	70000	50000	1000
4	Swin	Willa	43	Pune	Asus TUF	75000	20000	0
10	Suzi	Yann	45	pune	Asus TUF	60000	5000	0

The Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
46	00:15:00	select f_name, products from retailers LIMIT 0, 50000	10 row(s) returned	0.000 sec / 0.000 sec
47	00:16:03	select * from retailers where products = 'Asus TUF' LIMIT 0, 50000	2 row(s) returned	0.000 sec / 0.000 sec
48	00:16:52	select * from retailers order by profit desc limit 1,1	1 row(s) returned	0.000 sec / 0.000 sec
49	00:17:15	select * from retailers where selling_price > 50000 and location = 'Pune' LIMIT 0, 50000	3 row(s) returned	0.000 sec / 0.000 sec

Query 4 : Display those customers whose name starts from 'S' in table.



MySQL Workbench interface showing Query 4 execution. The query is:

```
-- Display Those Customers whose name Starts from 'S'.
select * from retailers where F_name like 'S%';
```

The Result Grid displays the following data:

ID	f_name	l_name	age	location	products	selling_price	profit	loss
3	Shraddha	Kale	21	nagar	oppo	30000	2500	2000
4	Swin	Willa	43	Pune	Asus TUF	75000	20000	0
9	Stephen	Hwkward	35	Nashik	Asus Vivobook	50000	15000	500
10	Suzi	Yann	45	pune	Asus TUF	60000	5000	0

The Output pane shows the execution log:

#	Time	Action	Message	Duration / Fetch
47	00:16:03	select * from retailers where products = 'Asus TUF' LIMIT 0, 50000	2 row(s) returned	0.000 sec / 0.000 sec
48	00:16:52	select * from retailers order by profit desc limit 1,1	1 row(s) returned	0.000 sec / 0.000 sec
49	00:17:15	select * from retailers where selling_price > 50000 and location = 'Pune' LIMIT 0, 50000	3 row(s) returned	0.000 sec / 0.000 sec
50	00:18:01	select * from retailers where F_name like 'S%'; LIMIT 0, 50000	4 row(s) returned	0.000 sec / 0.000 sec

Query 6 : Display the name, location, product, selling price from retailers.

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
-- Display the name, location, product of those retailers whose Selling Price between 40000 to 60000 in decendeing order
select F_name, l_name, location, products, selling_price from retailers
where selling_price between 40000 and 60000 order by selling_price desc;
```

The Result Grid displays the following data:

F_name	l_name	location	products	selling_price
John	Bottom	Mumbai	HP Pavilion	60000
Suzi	Yann	pune	Asus TUF	60000
Stephen	Hwkward	Nashik	Asus Vivobook	50000
Aditi	Jadhav	Beed	RealMe	45000
Joseph	Alzery	Pune	Asus Vivobook	44000
Peter	Kewin	Nashik	HP 15s	40000

The Action Output pane shows the execution of the query, indicating that 6 rows were returned.

Query 7 : Write a query to find the name of all retailer department location in Mumbai

The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

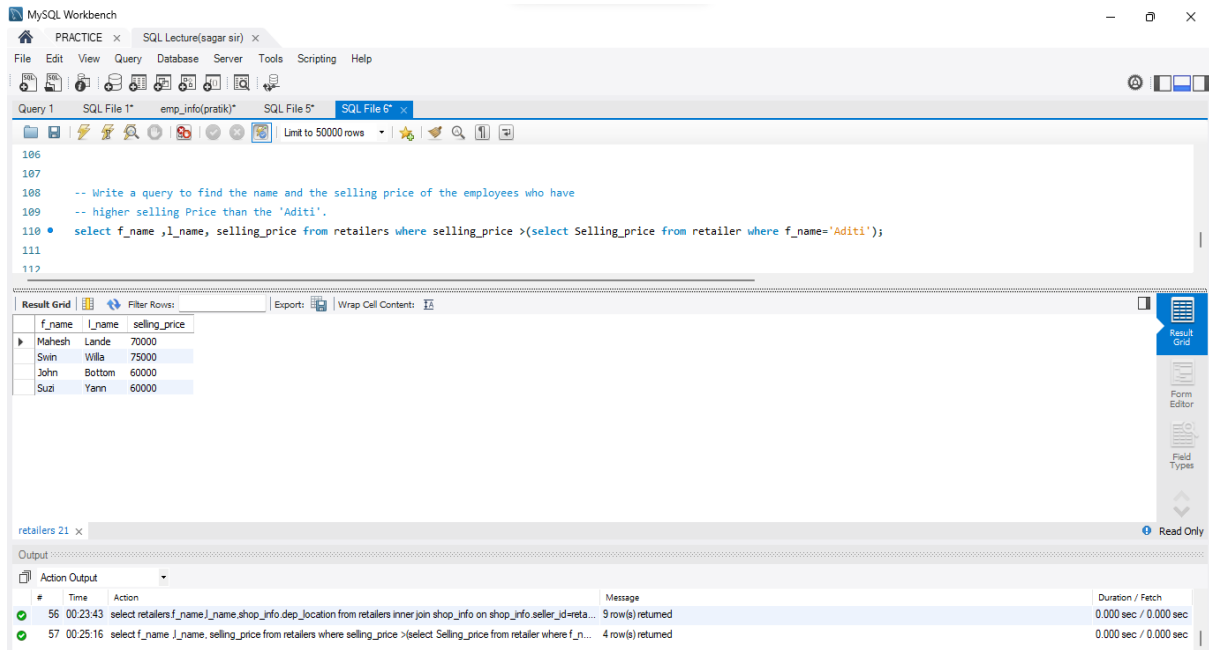
```
-- Write a query to find the name of all retailer dep_location in mumbai (from both tables).
select retailers.f_name, l_name, shop_info.dep_location from retailers
inner join shop_info on shop_info.seller_id=retailers.id where dep_location='delhi';
```

The Result Grid displays the following data:

f_name	l_name	dep_location
Aditi	Jadhav	Delhi
Shradha	Kale	Delhi
Swin	Willa	Delhi
Iris	Devine	Delhi
Peter	Kewin	Delhi
Joseph	Alzery	Delhi
John	Bottom	Delhi
Stephen	Hwkward	Delhi
Suzi	Yann	Delhi

The Action Output pane shows the execution of the query, indicating that 9 rows were returned.

Query 8 : Write a query to find the name and selling price of the employees who have higher Selling price than 'Aditi' retailer.



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

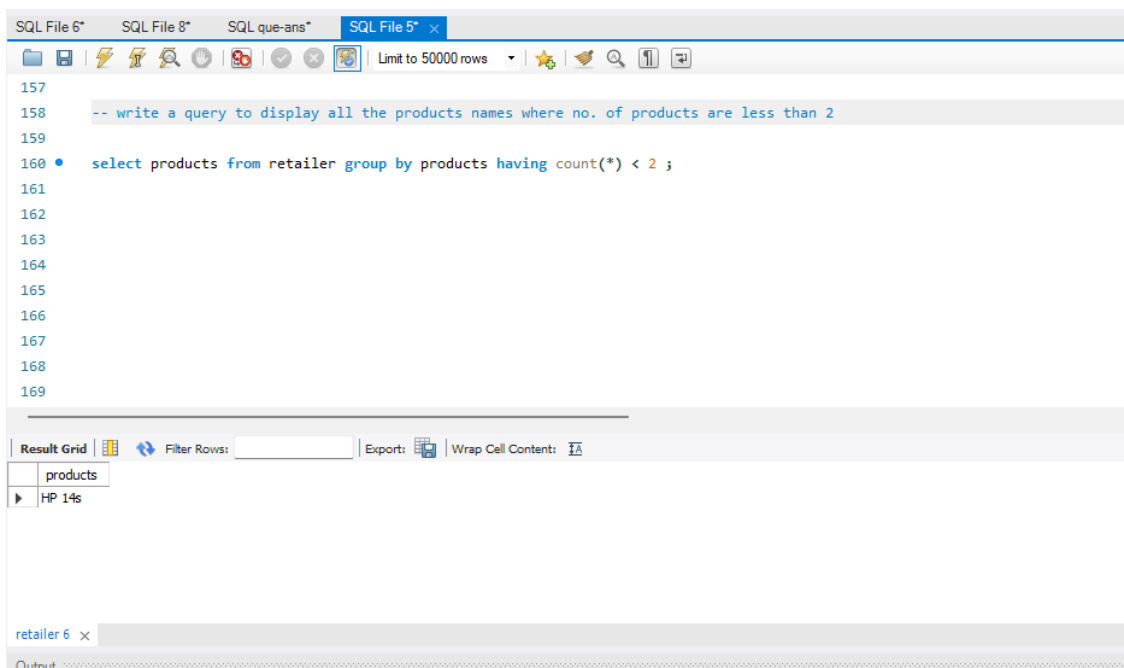
```
-- Write a query to find the name and the selling price of the employees who have
-- higher selling Price than the 'Aditi'.
select f_name ,l_name, selling_price from retailers where selling_price >(select Selling_price from retailer where f_name='Aditi');
```

The Result Grid shows the following data:

f_name	l_name	selling_price
Mahesh	Lande	70000
Swin	Willa	75000
John	Bottom	60000
Sud	Yann	60000

The Output pane shows the execution of the query, indicating that 4 row(s) were returned.

Query 9 : Write a query to display all the products names where no. of products are less than 2



The screenshot shows the MySQL Workbench interface. The SQL editor contains the following query:

```
-- write a query to display all the products names where no. of products are less than 2
select products from retailer group by products having count(*) < 2 ;
```

The Result Grid shows the following data:

products
HP 14s

The Output pane shows the execution of the query, indicating that 1 row(s) were returned.

Query 10 : Create a Report that shows all the col_name inUPPER case and renamed as lastname from the table.

The screenshot shows a SQL IDE interface with a query editor and a results grid. The query editor contains the following SQL code:

```
163 -- CREATE A REPORT THAT SHOWS ALL THE COL_NAME IN UPPERCASE LETTER AND RENAMED
164 -- AS LASTNAME FROM THE TABLE.
165 • SELECT upper(l_name) as lastname from retailer;
166
167
168
169
170
171
172
173
174
175
```

The results grid displays the output of the query, showing a single column named 'lastname' with the following values:

lastname
XEGY
FERNANDEZ
WILLA
LARA
DEVINE
KEWIN
Δ 1 7F8Y

The interface also includes a toolbar with various icons for file operations, a 'Limit to 50000 rows' dropdown, and a 'Filter Rows' section. The bottom status bar indicates 'Result 7'.

PROBLEM STATEMENT

In this project I had some queries to run, while doing that I faced problem such as the queries were correct but still it used to not be executed.

The MYSQL workbench gets updated if the updates are available sometimes the software give problem (giving syntax error).

So I tried to run the queries on other device. surprisingly, It could run on that device.

CONCLUSION

This module has presented all the basic hurdles to using and understanding SQL. You should understand, play with, and feel comfortable with these statements because you will use them constantly when you work with an SQL database system. You will be using the **SELECT** statement in extracting the information needed for the class project. It's the core of most of the work you will be doing with SQL.

It would be a good idea to review this module before continuing. From here, we will build on the **SELECT** statement and show how you can do more advanced database queries. The balance of the language is built on the **INSERT**, **SELECT**, **UPDATE**, and **DELETE** statements.

SQL statements let you perform simple tasks with a database such as creating a new table or inserting a record. By combining many SQL statements into a script, you can perform elaborate procedures such as creating and initializing a database from scratch. It describes the benefits of using scripts to create databases and discusses some of the issues that you should understand before writing those scripts.

FUTURE SCOPE

- **SQL Server Integration Services (SSIS):** This service helps you with the integration of multiple databases, database objects and entities as per your requirement.
- **Microsoft SQL Server:** This is the most difficult yet intriguing job for SQL developer where he has to work on server performance, integrity as well as server maintenance. This is one of the highly paid SQL Developer skills where developers get attractive remuneration and other opportunities too.
- **Analytical skills:** Developers must analyse and understand the needs of the user and then design the software accordingly to meet those needs.
- **Creativity:** Developers must be creative enough to find new solutions to conventional problems.
- **Detail-oriented:** Developers usually work on several parts of an application or system simultaneously and therefore must be able to focus and pay attention to even the minute details.
- **Interpersonal skills:** Developers must be able to work in harmony with others who help in developing and creating successful software.
- **Problem-solving skills:** Since developers are in charge of software from beginning to end, they should be capable of solving problems that may occur along the design process.