

## COURSE 4:

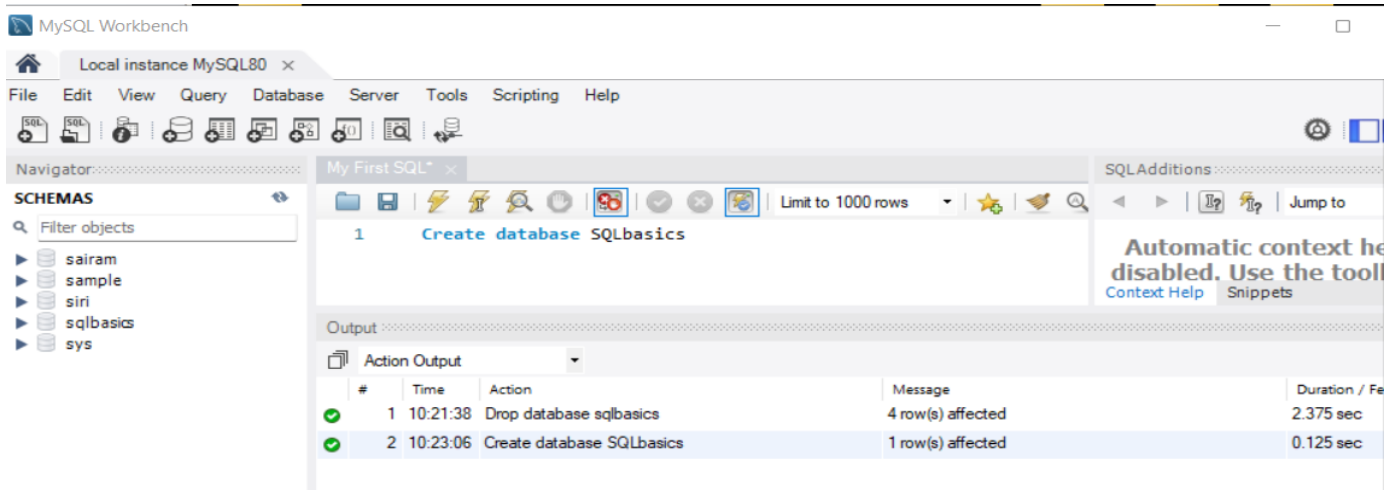
## SQLTRAINING PRACTICE PROJECT

5.18

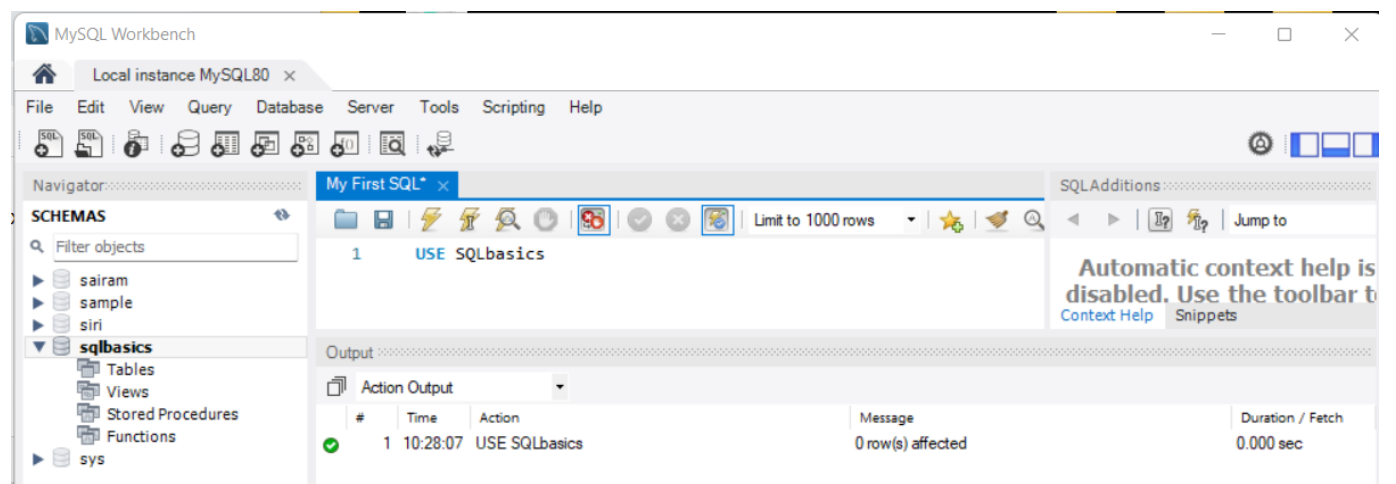
## Retail Mart Management

### Task

1. Write a Query to create a database named SQL basics



2. Write a query to select the database SQL basics



3. Write a query to create a **product table** with fields as product code, product name, price, stock and category, **customer table** with the fields as customer id, customer name, customer location, and customer phone number and, **sales table** with the fields as date, order number, product code, product name, quantity, and price.

### Product\_Table

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

Filter objects

- sairam
- sample
- siri
- sqlbasics
  - product\_table
  - Views
  - Stored Procedures
  - Functions
- sys

My First SQL\* product\_table

```

1 Create table Product_table
2 (P_code int,
3  P_name varchar(30),
4  Price int,
5  stock int,
6  Ctaegory varchar(30)
7  );
8

```

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Output

Action Output

| # | Time     | Action   | Message           | Duration / Fetch      |
|---|----------|--|-------------------|-----------------------|
| 1 | 10:28:07 | USE SQLbasics  | 0 row(s) affected | 0.000 sec             |
| 2 | 10:32:39 | Create table Product_table (P_code int, P_name va... | 0 row(s) affected | 2.282 sec             |
| 3 | 10:32:53 | SELECT * FROM sqlbasics.product_table LIMIT 0, ...   | 0 row(s) returned | 0.015 sec / 0.000 sec |

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

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- sqlbasics
  - product\_table
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  - Functions
- sys

My First SQL\* product\_table

```

1 SELECT * FROM sqlbasics.product_table;

```

Result Grid

| P_code | P_name | Price | stock | Ctaegory |
|--------|--------|-------|-------|----------|
|--------|--------|-------|-------|----------|

Export: Wrap Cell Content

product\_table 1 x Read Only

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

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Action Output

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## Customer\_Table

MySQL Workbench

Local instance MySQL80

File Edit View Query Database Server Tools Scripting Help

Navigator: SCHEMAS

Filter objects

- sairam
- sample
- siri
- sqlbasics
  - product\_table
  - Views
  - Stored Procedures
  - Functions
- sys

My First SQL\*

```

1 create table Customer_Table
2 ( C_id int,
3  C_name varchar(30),
4  C_location varchar(30),
5  C_phoneno int
6  );
7

```

SQLAdditions

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Output

Action Output

| # | Time     | Action  | Message           | Duration / Fetch      |
|---|----------|---|-------------------|-----------------------|
| 1 | 10:28:07 | USE SQLbasics   | 0 row(s) affected | 0.000 sec             |
| 2 | 10:32:39 | Create table Product_table (P_code int, P_name va...  | 0 row(s) affected | 2.282 sec             |
| 3 | 10:32:53 | SELECT * FROM sqlbasics.product_table LIMIT 0, ...    | 0 row(s) returned | 0.015 sec / 0.000 sec |
| 4 | 10:40:18 | create table Customer_Table ( C_id int, C_name var... | 0 row(s) affected | 1.469 sec             |



#### 4. Write a query to **insert values** into the tables.

The screenshot shows the SQL Developer interface with the 'customer\_table' selected in the Navigator. The main editor contains an INSERT query. The Output window shows the execution results, including a warning for the 'Sales\_table' creation and a successful insert into 'customer\_table'.

```
1 • Insert into
2 Customer_Table (C_id, C_name, C_location, C_phoneno)
3 values
4 (1111, 'Nisha', 'Kerala', 8392320),
5 (1212, 'Oliver', 'Kerala', 4353891),
6 (1246, 'Vignesh', 'Chennai', 1111212),
7 (3452, 'Alexander', 'WestBengal', 1212134),
8 (5334, 'Christy', 'Pakistan', 2311111),
9 (9875, 'Stephen', 'Chennai', 1212133);
```

**Table: customer\_table**

**Columns:**

- C\_id int
- C\_name varchar(30)

| #    | Time     | Action  | Message   | Duration / Fetch      |
|------|----------|---|---|-----------------------|
| ✓ 1  | 10:28:07 | USE SQLbasics   | 0 row(s) affected                                       | 0.000 sec             |
| ✓ 2  | 10:32:39 | Create table Product_table (P_code int, P_name va...  | 0 row(s) affected                                       | 2.282 sec             |
| ✓ 3  | 10:32:53 | SELECT * FROM sqlbasics.product_table LIMIT 0, ...    | 0 row(s) returned                                       | 0.015 sec / 0.000 sec |
| ✓ 4  | 10:40:18 | create table Customer_Table (C_id int, C_name var...  | 0 row(s) affected                                       | 1.469 sec             |
| ✓ 5  | 10:44:50 | SELECT * FROM sqlbasics.customer_table LIMIT 0...     | 0 row(s) returned                                       | 0.141 sec / 0.000 sec |
| ✓ 6  | 10:44:51 | SELECT * FROM sqlbasics.customer_table LIMIT 0...     | 0 row(s) returned                                       | 0.000 sec / 0.000 sec |
| ⚠ 7  | 10:52:24 | Create table Sales_table (Date date, Order_no ncha... | 0 row(s) affected, 1 warning(s): 3720 NATIONAL/N...     | 0.609 sec             |
| ✓ 8  | 10:54:07 | SELECT * FROM sqlbasics.sales_table LIMIT 0, 1000     | 0 row(s) returned                                       | 0.000 sec / 0.000 sec |
| ✗ 9  | 11:09:46 | Insert into Customer_Table (C_id, C_name, C_locati... | Error Code: 1054. Unknown column 'Nisha' in field li... | 0.000 sec             |
| ✓ 10 | 11:13:09 | Insert into Customer_Table (C_id, C_name, C_locati... | 6 row(s) affected Records: 6 Duplicates: 0 Wamin...     | 0.172 sec             |

The screenshot shows the SQL Developer interface with the 'customer\_table' selected in the Navigator. The main editor contains a SELECT query. The Output window shows the execution results, including a successful insert into 'customer\_table'.

```
1 • SELECT * FROM sqlbasics.customer_table;
```

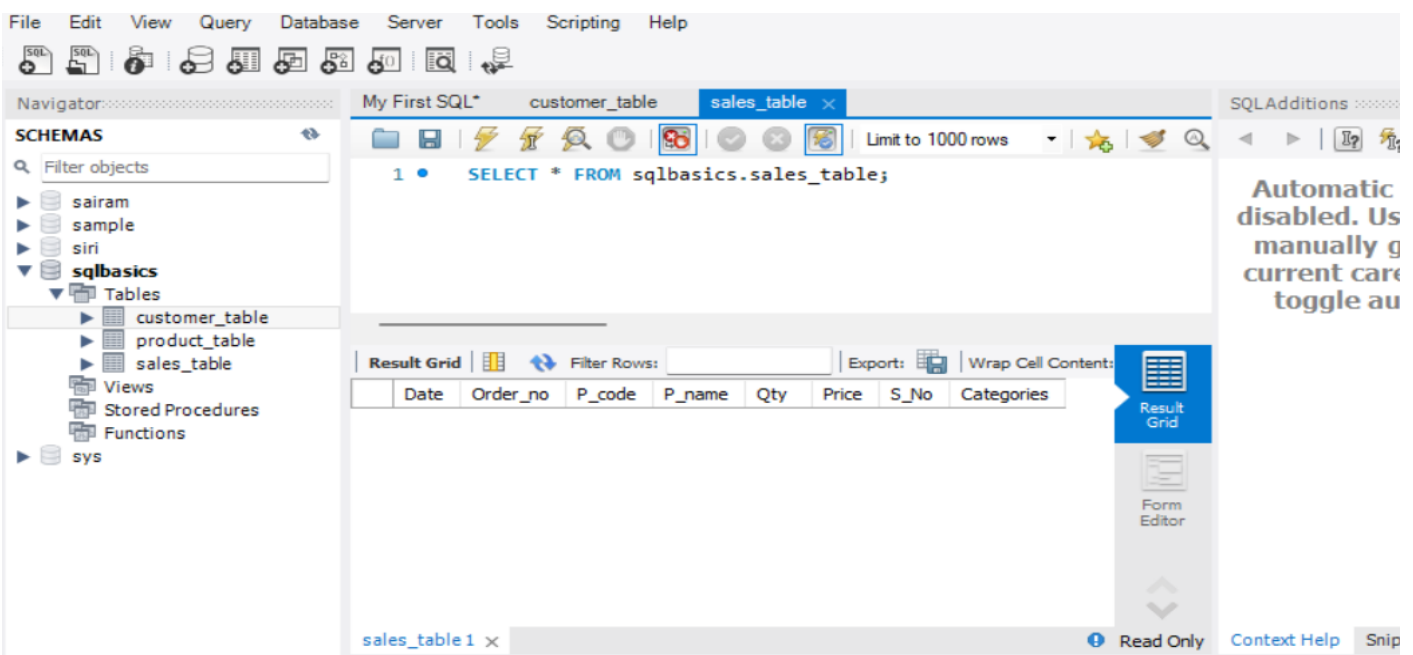
| C_id | C_name    | C_location | C_phoneno |
|------|-----------|------------|-----------|
| 1111 | Nisha     | Kerala     | 8392320   |
| 1212 | Oliver    | Kerala     | 4353891   |
| 1246 | Vignesh   | Chennai    | 1111212   |
| 3452 | Alexander | WestBengal | 1212134   |
| 5334 | Christy   | Pakistan   | 2311111   |
| 9875 | Stephen   | Chennai    | 1212133   |

**Table: customer\_table**

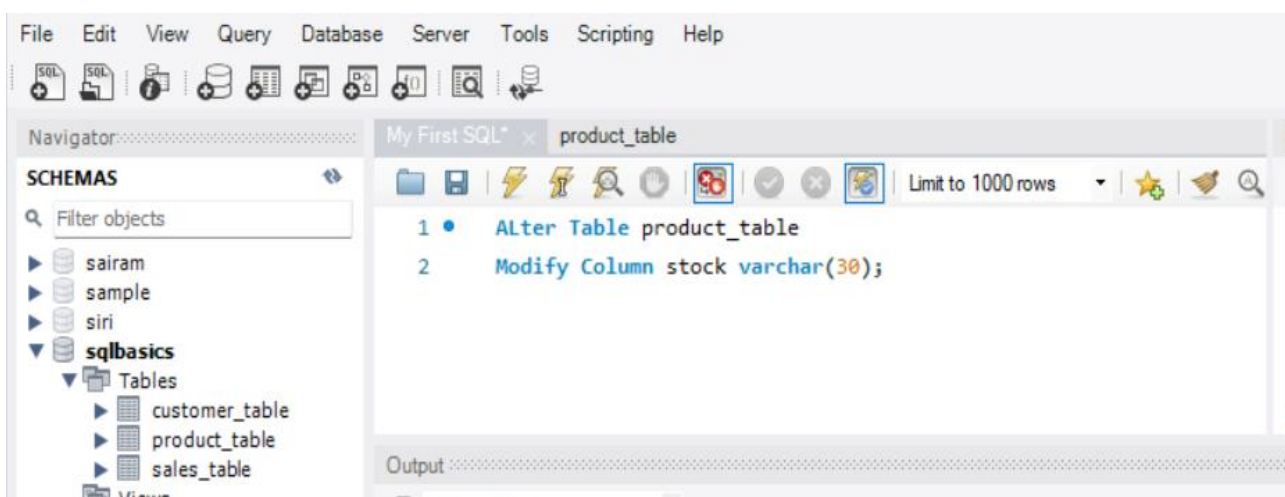
| #   | Time     | Action   | Message           | Duration / Fetch      |
|-----|----------|--|-------------------|-----------------------|
| ✓ 1 | 10:28:07 | USE SQLbasics                                      | 0 row(s) affected | 0.000 sec             |
| ✓ 2 | 10:32:39 | Create table Product_table (P_code int, P_name ... | 0 row(s) affected | 2.282 sec             |
| ✓ 3 | 10:32:53 | SELECT * FROM sqlbasics.product_table LIMIT 0...   | 0 row(s) returned | 0.015 sec / 0.000 sec |



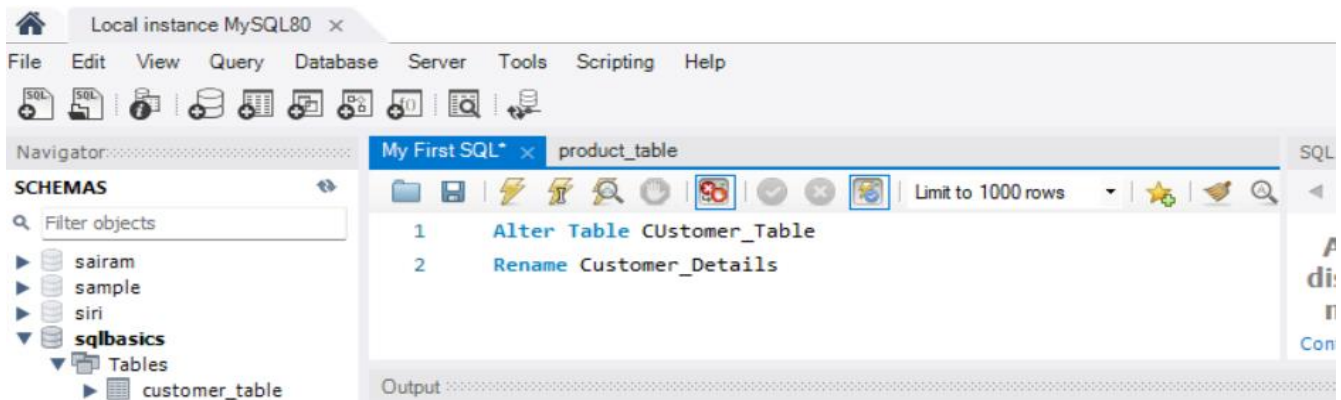
5. Write a query to add two new columns such as **S\_no** and **categories** to the sales table.



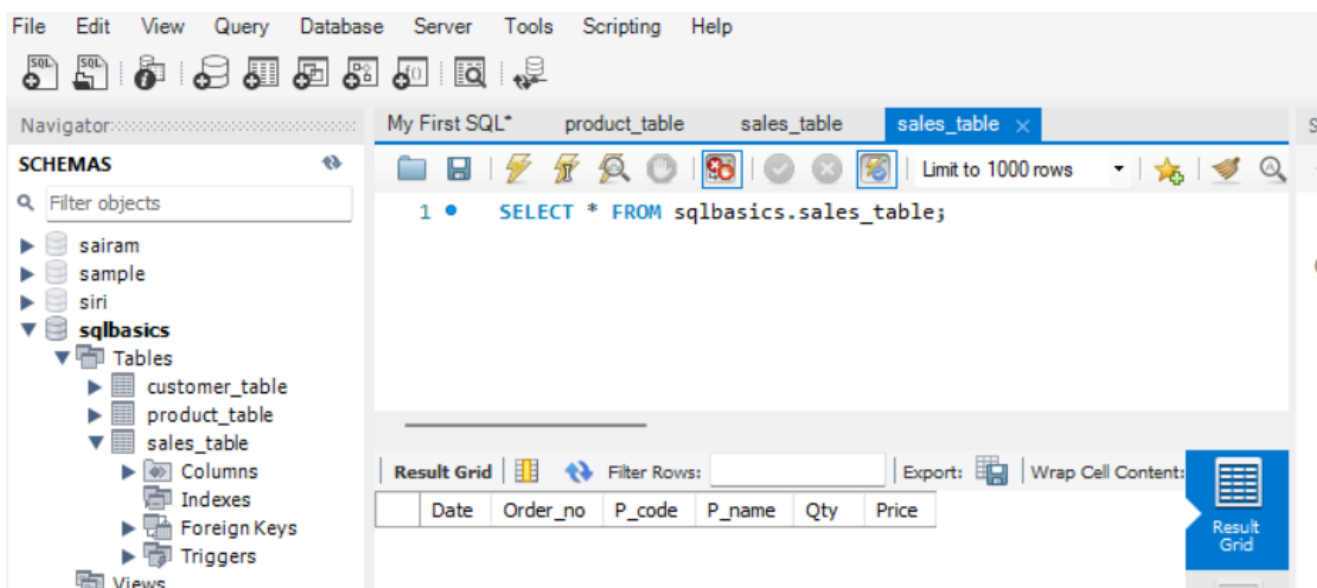
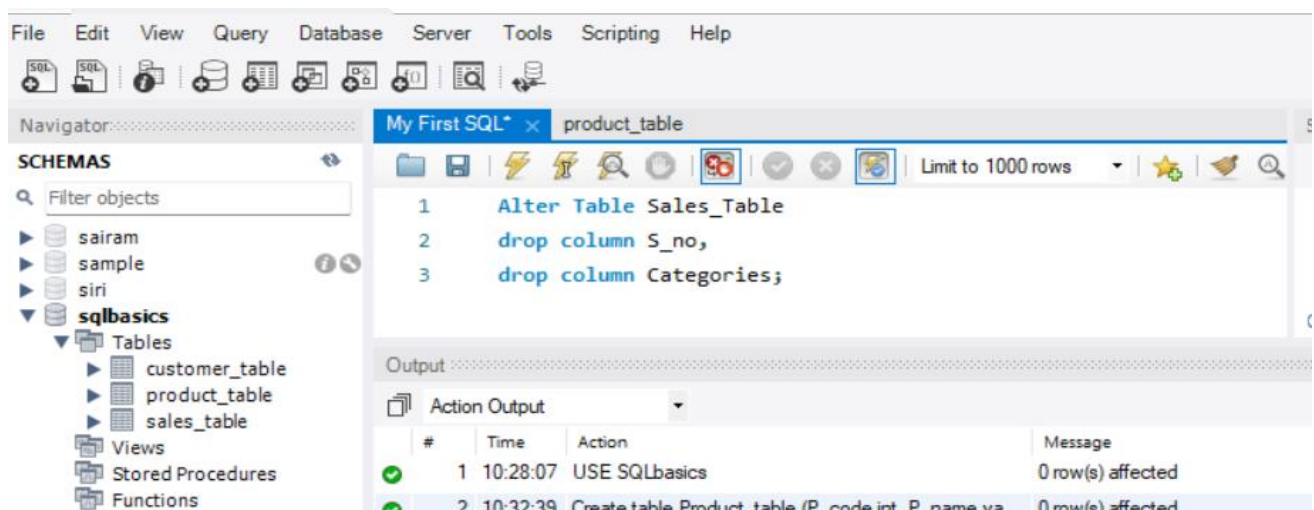
6. Write a query to change the column type of **stock** in the product table to **varchar**.



7. Write a query to **change** the table name from **customer-to-customer** details.



8. Write a query to **drop** the columns **S\_no** and **categories** from the sales table.



9. Write a query to **display** order id, customer id, order date, price, and quantity from the sales table.

The screenshot shows the MySQL Workbench interface for a local instance of MySQL 8.0. The 'Navigator' pane on the left shows the 'sqlbasics' schema with tables 'customer\_details', 'product\_table', and 'sales\_table'. The 'My First SQL\*' editor shows the following query:

```
1 • SELECT Order_id, customer_id, date, price, qty
2 FROM sqlbasics.sales_table;
```

The 'Result Grid' pane at the bottom shows the columns: Order\_id, customer\_id, date, price, qty. A 'Result Grid' button is visible on the right.

10. Write a query to display all the details in the product table if the **category** is stationary.

The screenshot shows the MySQL Workbench interface for a local instance of MySQL 8.0. The 'Navigator' pane on the left shows the 'sqlbasics' schema with tables 'customer\_data', 'customer\_details', 'product\_table', 'product\_table1', 'sales\_table', and 'sales\_table1'. The 'My First SQL\*' editor shows the following query:

```
1 • Select * from Product_Table1
2 where category like '%y'
3
4
```

The 'Result Grid' pane at the bottom shows the columns: p\_code, p\_name, price, stock, category. The data is as follows:

| p_code | p_name     | price | stock | category   |
|--------|------------|-------|-------|------------|
| 3      | Pen        | 10    | 52    | Stationary |
| 11     | pencil     | 4     | 10    | Stationary |
| 12     | sharpener  | 5     | 90    | Stationary |
| 13     | sketch pen | 30    | 10    | Stationary |
| 14     | tape       | 15    | 30    | Stationary |
| 15     | paint      | 60    | 12    | Stationary |

The 'Output' pane at the bottom shows the 'Action Output' table with the following rows:

| #     | Time     | Action   | Message           |
|-------|----------|--|-------------------|
| ✓ 104 | 13:53:23 | Select category from Product_Table1 where cat...   | 6 row(s) returned |
| ✓ 105 | 13:53:43 | Select * from Product_Table1 where category lik... | 6 row(s) returned |

11. Write a query to display a **unique category** from the product table.

The screenshot shows the SQL Developer interface. The left pane displays the 'SCHEMAS' tree with 'sqlbasics' selected. The main query editor shows the following SQL query:

```
1 Select distinct
2 Category
3 from
4 Product_Table1
```

The 'Result Grid' at the bottom displays the following categories:

| Category        |
|-----------------|
| perfume         |
| icecream        |
| Stationary      |
| snacks          |
| dip             |
| spread          |
| hair product    |
| fruits          |
| vegetable       |
| kitchen utensil |

12. Write a query to display the sales details if **quantity is greater than 2** and **price is lesser than 500** from the sales table.

The screenshot shows the SQL Developer interface. The left pane displays the 'SCHEMAS' tree with 'sqlbasics' selected. The main query editor shows the following SQL query:

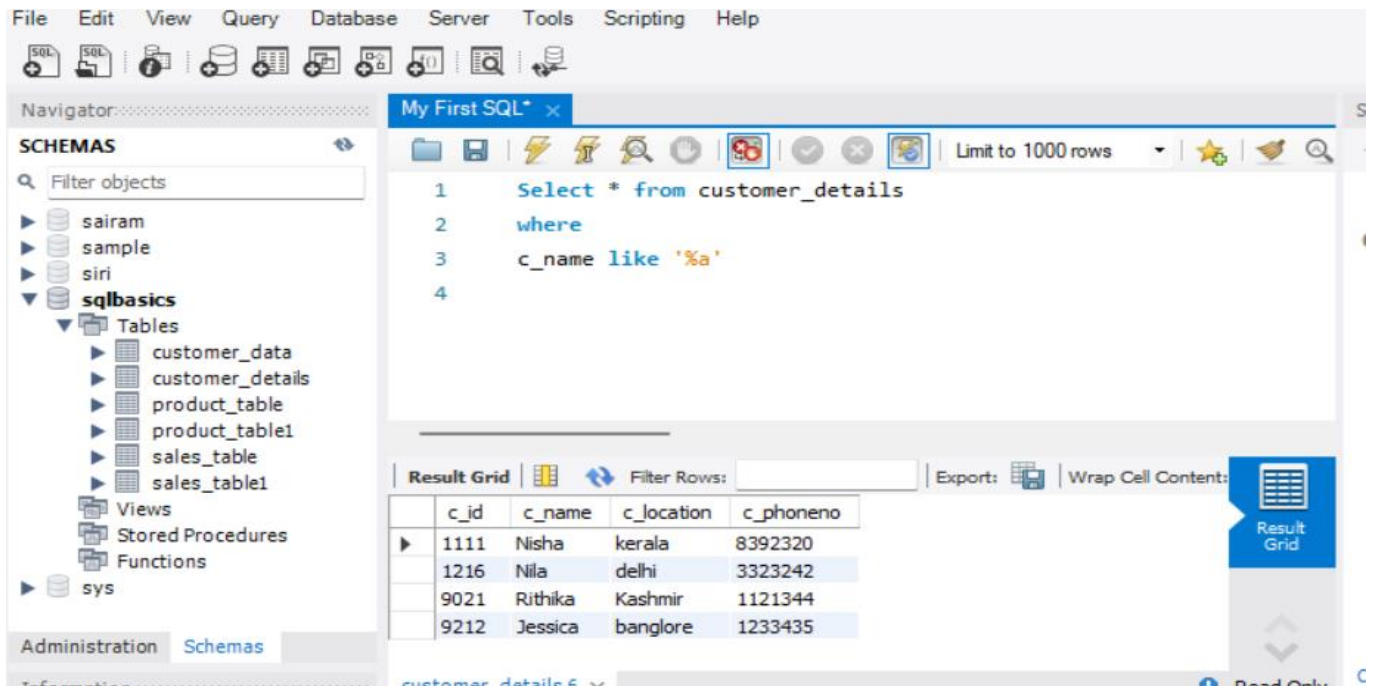
```
1 Select * from Sales_Table
2 where Qty>2 and price <500
3
```

The 'Result Grid' at the bottom displays the following sales details:

| order_date | order_no | c_id | c_name  | s_code | p_name    | qty | price |
|------------|----------|------|---------|--------|-----------|-----|-------|
| 24-07-2016 | HM06     | 9212 | Jessica | 11     | pencil    | 3   | 30    |
| 12-04-2018 | HM03     | 1212 | Oliver  | 20     | kiwi      | 3   | 420   |
| 15-03-2019 | HM01     | 1910 | Mohan   | 5      | mayanoise | 4   | 360   |



13. Write a query to display the customer's name if the **name ends with a**.



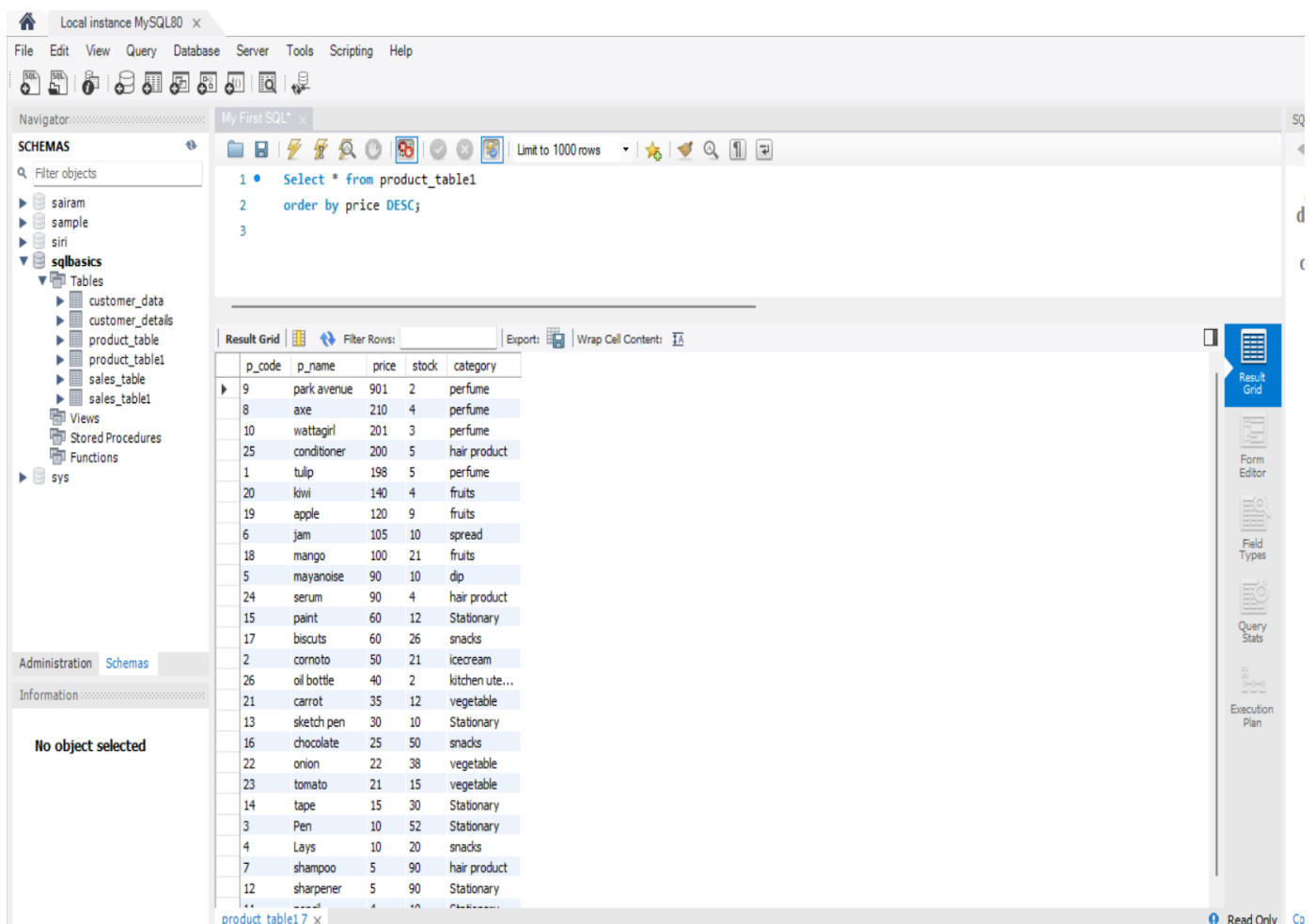
The screenshot shows the SQL Studio interface. The left sidebar displays the 'SCHEMAS' tree with 'sqlbasics' expanded, showing tables like 'customer\_data', 'customer\_details', 'product\_table', 'product\_table1', 'sales\_table', and 'sales\_table1'. The main query editor contains the following SQL code:

```
1 Select * from customer_details
2 where
3 c_name like '%a'
4
```

The 'Result Grid' at the bottom displays the results of the query:

| c_id | c_name  | c_location | c_phoneno |
|------|---------|------------|-----------|
| 1111 | Nisha   | kerala     | 8392320   |
| 1216 | Nila    | delhi      | 3323242   |
| 9021 | Rithika | Kashmir    | 1121344   |
| 9212 | Jessica | banglore   | 1233435   |

14. Write a query to display the product details in **descending order of the price**.



The screenshot shows the SQL Studio interface. The left sidebar displays the 'SCHEMAS' tree with 'sqlbasics' expanded, showing tables like 'customer\_data', 'customer\_details', 'product\_table', 'product\_table1', 'sales\_table', and 'sales\_table1'. The main query editor contains the following SQL code:

```
1 Select * from product_table1
2 order by price DESC;
3
```

The 'Result Grid' at the bottom displays the results of the query, sorted by price in descending order:

| p_code | p_name      | price | stock | category       |
|--------|-------------|-------|-------|----------------|
| 9      | park avenue | 901   | 2     | perfume        |
| 8      | axe         | 210   | 4     | perfume        |
| 10     | wattagirl   | 201   | 3     | perfume        |
| 25     | conditioner | 200   | 5     | hair product   |
| 1      | tulip       | 198   | 5     | perfume        |
| 20     | kiwi        | 140   | 4     | fruits         |
| 19     | apple       | 120   | 9     | fruits         |
| 6      | jam         | 105   | 10    | spread         |
| 18     | mango       | 100   | 21    | fruits         |
| 5      | mayanouse   | 90    | 10    | dip            |
| 24     | serum       | 90    | 4     | hair product   |
| 15     | paint       | 60    | 12    | Stationary     |
| 17     | biscuits    | 60    | 26    | snacks         |
| 2      | cornoto     | 50    | 21    | icecream       |
| 26     | oil bottle  | 40    | 2     | kitchen ute... |
| 21     | carrot      | 35    | 12    | vegetable      |
| 13     | sketch pen  | 30    | 10    | Stationary     |
| 16     | chocolate   | 25    | 50    | snacks         |
| 22     | onion       | 22    | 38    | vegetable      |
| 23     | tomato      | 21    | 15    | vegetable      |
| 14     | tape        | 15    | 30    | Stationary     |
| 3      | Pen         | 10    | 52    | Stationary     |
| 4      | Lays        | 10    | 20    | snacks         |
| 7      | shampoo     | 5     | 90    | hair product   |
| 12     | sharpener   | 5     | 90    | Stationary     |

15. Write a query to display the product code and category from **similar categories** that are **greater than or equal to 2**.

The screenshot shows the MySQL Workbench interface. The left sidebar displays the 'SCHEMAS' tree with 'sqlbasics' selected. The main editor shows a query for 'product\_table1':

```
1 • Select P_Code, Category
2 from Product_Table1
3 where P_code >=2
4 order by category
5
```

The 'Result Grid' shows the following data:

| P_Code | Category        |
|--------|-----------------|
| 5      | dip             |
| 18     | fruits          |
| 19     | fruits          |
| 20     | fruits          |
| 7      | hair product    |
| 24     | hair product    |
| 25     | hair product    |
| 2      | icecream        |
| 26     | kitchen utensil |
| 8      | perfume         |
| 9      | perfume         |
| 10     | perfume         |
| 4      | snacks          |
| 16     | snacks          |
| 17     | snacks          |
| 6      | spread          |
| 3      | Stationary      |
| 11     | Stationary      |
| 12     | Stationary      |
| 13     | Stationary      |
| 14     | Stationary      |
| 15     | Stationary      |
| 21     | vegetable       |
| 22     | vegetable       |
| 23     | vegetable       |

16. Write a query to display the order number and the customers' name to **combine** the results of the order and the customer tables including **duplicate rows**.

The screenshot shows the MySQL Workbench interface with a query for an inner join between 'sales\_table1' and 'customer\_details':

```
1 • SELECT T1.Order_no, T2.C_name, T2.C_id, T2.C_location, T2.C_phoneno from
2 Sales_Table as T1
3 inner join
4 Customer_details as T2
5 on
6 T1.C_id = T2.C_id
7
8
```

The 'Result Grid' shows the following data:

| Order_no | C_name  | C_id | C_location | C_phoneno |
|----------|---------|------|------------|-----------|
| HM04     | Nisha   | 1111 | kerala     | 8392320   |
| HM03     | Oliver  | 1212 | kerala     | 4353891   |
| HM07     | Vignesh | 1246 | chennai    | 1111212   |
| HM01     | Mohan   | 1910 | mumbai     | 9023941   |
| HM05     | Mohan   | 1910 | mumbai     | 9023941   |
| HM02     | Biyush  | 2123 | Bombay     | 1253358   |
| HM09     | Mukesh  | 3921 | Manipur    | 4232321   |
| HM08     | Christy | 5334 | pakistan   | 2311111   |
| HM06     | Jessica | 9212 | banglore   | 1233435   |
| HM10     | Stephen | 9875 | chennai    | 1212133   |