

Heaven's Light is Our Guide
Rajshahi University of Engineering and Technology



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Database Systems Sessional

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Lab Report 3: Creating a database and doing operations on it using SQL

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Basic MySQL Operations

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1 Tools Used

- MySQL
- VS Code - as an IDE to use SQL
- MacTeX - \LaTeX compiler
- VS Code with LaTeX workshop extension as a text editor

2 Process

The task is to create a database and then do some operations on the database using the SELECT, WHERE, LIKE, IN operator.

2.1 SQL Codes:

Create a table, order_details(order code, customer name, mobile, address, product ordered, category, quantity, delivery status, remark)

Code:

```
1 CREATE DATABASE IF NOT EXISTS ProductOrderDetailsLR3;
2 -- creating databse
3 -- creating the table as instructed
4 CREATE TABLE ProductOrderDetailsLR3.Order_Details(
5     order_code int Auto_Increment Primary Key,
6     customer_name varchar(30),
7     mobile varchar(30),
8     address_ varchar(70),
9     product_ordered varchar(30),
10    catagory varchar(30),
11    quantity int,
12    delivery_status boolean,
13    remark varchar(40)
14 )
```

2.1.1 Add two columns order date and delivered date into the table.

Code:

```
1 alter TABLE
2 ProductOrderDetailsLR3.Order_Details
3 ADD
4     order_date date,
5 ADD
6     delivery_date date;
```

2.1.2 Insert values into the table where number of row is at least 15.

Code:

```
1 INSERT INTO                                29      (
2 ProductOrderDetailsLR3.                  30      'Sazid',
3 Order_Details                            31      '01828798623',
4     (                                     32      'Zia Hall, RUET',
5         customer_name,                    33      'Freeze',
6         mobile,                           34      'Home Appliance',
7         address_,                          35      1,
8         product_ordered,                  36      '1',
9         catagory,                          37      'Borolox customer',
10        quantity,                         38      '2023-01-01',
11        delivery_status,                   39      '2023-02-14'
12        remark,                            40      )...
13        order_date,
14        delivery_date
15    )
16 VALUES
17     (
18         'Rifath',
19         '016245226784',
20         'Vataopara, Lokkhipur,
21         ↵ Rajshahi',
22         'Mechanical Keyboard',
23         'Tech Accessories',
24         1,
25         '1',
26         'Good customer',
27         '2023-06-11',
28         '2023-06-14'
29     ),
```

To save space only two instances of the input values are shown.

2.1.3 Find the customers who have ordered from Rajshahi.

Code:

```
1 SELECT
2     customer_name as Customer_Name,
3     address_ as Ordered_From
4 FROM
5     ProductOrderDetailsLR3.Order_Details
6 where
7     address_ like '%Rajshahi%'
```

2.1.4 Find the customers and their full address whose order has been canceled with a remark of "can not be processed".

Code:

```
1  -- updating the remarks as Cannon be proccessed for future
   ↳ operations
2  UPDATE
3      ProductOrderDetailsLR3.Order_Details
4  set
5      remark = 'Cannot be proccessed'
6  WHERE
7      delivery_status = 0
8  -- finding the customers
9  SELECT
10     customer_name as Customer_Name,
11     address_ as Ordered_From
12 FROM
13     ProductOrderDetailsLR3.Order_Details
14 where
15     remark = 'Cannot be proccessed'
```

2.1.5 Find the customers and product they ordered who have ordered after "30-10-2021"

Code:

```
1 SELECT
2     customer_name as Customer_Name,
3     product_ordered as Product
4 FROM
5     ProductOrderDetailsLR3.Order_Details
6 where
7     order_date > '2021-10-30'
```

2.1.6 Find the order code and customer's mobile who ordered 5, 10 or 15 numbers of products.

Code:

```
1 SELECT
2     order_code as Order_Code,
3     mobile as Customer_Mobile,
4     quantity
5 FROM
6     ProductOrderDetailsLR3.Order_Details
7 WHERE
8     quantity in(5, 10, 15)
```

3 Output

order_code	customer_name	mobile	address_	product_ordered	catagory	quantity	delivery_status	remark	order_date	delivery_date
1	Rifath	016245226784	Vataopara, Lokkipur, Rajshahi	Mechanical Keyboard	Tech Accessories	1	1	Good customer	2023-06-11	2023-06-14
2	Sazid	01828798623	Foridpur	Freeze	Home Appliance	1	1	Borolox customer	2023-01-01	2023-02-14
3	Mahin	01759802122	Vodra, Rajshahi	Tab	Tech Accessories	5	0	Cannot be processed	2023-08-03	NULL
4	Munir	01518738721	Vodra, Rajshahi	Gaming Chair	Furniture	4	0	Cannot be processed	2023-10-01	NULL
5	Iyasir	01773992794	Monnafer Mor	Chess Board	Games	3	1	Money due	2022-11-15	2022-12-14
6	Rifath	016245226784	Vataopara, Lokkipur, Rajshahi	LED	Electronics	50	0	Cannot be processed	2017-10-15	NULL
7	Rahul	01968735817	Vataopara, Lokkipur, Rajshahi	Mechanical Keyboard	Tech Accessories	1	0	Cannot be processed	2002-06-29	NULL
8	Radwan	01834277119	Talaimari, Rajshahi	Mechanical Keyboard	Tech Accessories	0	1	NULL	2011-10-15	NULL
9	Maksud	01517828301	Monnafer Mor, Rajshahi	Anitvirus	Software	0	2	NULL	2019-02-11	NULL
10	Galib	01772967677	Natore	Shirt	Clothes	1	20	NULL	2011-06-11	2011-07-02
11	Shanto	01761326263	Zia Hall, Rajshahi	Mosquito Net	Furniture	0	2	NULL	2018-12-11	NULL
12	Nahid	01971431789	Rani bazar, Rajshahi	Watch	Fashion	10	2	Casio 22111	2018-12-11	2018-12-22
13	Sadek	01909488778	Rani bazar, Rajshahi	Perfume	Fashion	0	4	NULL	2014-12-11	NULL
14	Dipu	01842630634	Azampur Kachabazar, Uttara	Internal SSD	Tech Accessories	15	10	For business	2018-12-11	2023-04-11
15	Shanto	01761326263	Zia Hall, Rajshahi	Ashtray	Furniture	1	2	NULL	2018-11-23	2018-12-11

(a) The complete table for the Database.

Customer_Name	Ordered_From
a Filter...	a Filter...
Rifath	Vataopara, Lokkipur, Rajshahi
Mahin	Vodra, Rajshahi
Munir	Vodra, Rajshahi
Rifath	Vataopara, Lokkipur, Rajshahi
Rahul	Vataopara, Lokkipur, Rajshahi
Radwan	Talaimari, Rajshahi
Maksud	Monnafer Mor, Rajshahi
Shanto	Zia Hall, Rajshahi
Nahid	Rani bazar, Rajshahi
Sadek	Rani bazar, Rajshahi
Shanto	Zia Hall, Rajshahi

(b) Customers who have ordered from Rajshahi.

Customer_Name	Ordered_From
a Filter...	a Filter...
Mahin	Vodra, Rajshahi
Munir	Vodra, Rajshahi
Rifath	Vataopara, Lokkipur, Rajshahi
Rahul	Vataopara, Lokkipur, Rajshahi

(c) Customers whose ordered have been canceled.

Customer Name	Product	Order Date
a Filter...	a Filter...	a Filter...
Rifath	Mechanical Keyboard	2023-06-11
Sazid	Freeze	2023-01-01
Mahin	Tab	2023-08-03
Munir	Gaming Chair	2023-10-01
Iyasir	Chess Board	2022-11-15

(d) Customers who have ordered after Oct 30, 2021.

Order_Code	Customer_Mobile	quantity
a Filter...	a Filter...	a Filter...
3	01759802122	5
12	01971431789	10
14	01842630634	15

(e) Customers who ordered 5, 10 or 15 products.