

# SQL Concepts - Assignment

## Maithreyan Kesavan

1. Assuming you are ready with ER Model (from Morning session Assignment), transform it into a Database schema. Create tables keeping up good practices and send me the create scripts you've written.

Provided as .sql files, Generated tables

### Category Table

category_code	category_name
a	food
b	electronics
c	household
NULL	NULL

### Product Table

product_code	product_name	unit_price	category_code
101	apple	30	a
102	milk	25	a
103	meat	100	a
201	tv	1000	b
202	laptop	2000	b
203	fridge	1500	b
301	knife	10	c
302	sheet	25	c
303	mop	15	c

## Location Table

location_id	location_name
1	chennai
2	banglore
3	delhi
4	hyderabad
5	gurgon
6	mumbai

## Customer Table

cust_id	cust_name	cust_dob	cust_gender	cust_location_id
1	aadarsh	1998-01-10	male	1
2	aishwary	1999-09-07	female	2
3	durga	1999-09-09	male	1
4	kalivani	1998-03-17	female	2
5	sharat	1999-03-22	male	3
6	shelva	1999-07-26	male	3
7	thamana	1999-07-26	female	5
8	thilak	1999-03-05	male	6
9	vaishnavi	1999-06-26	female	4
10	yuvraj	1999-03-05	male	3

### Sales Executives Table

ex_id	ex_name	ex_dob	ex_gender
1	ashwin	1998-10-10	male
2	arthi	1998-09-07	female
3	guru	1999-09-07	male
4	kaviya	1998-09-17	female
5	sanjay	1999-03-26	male
6	santhosh	1999-05-26	male
7	sankari	1999-07-16	female
8	varshini	1999-03-05	female

### Sale Table

cust_id	ex_id	prod_code	date_purchase	units
1	2	102	2020-12-01	4
3	6	202	2020-12-05	1
3	7	102	2020-12-01	6
3	8	201	2020-12-01	1
3	8	202	2020-12-02	1
4	2	101	2020-12-01	3
5	5	301	2020-12-03	2
6	7	203	2020-12-03	2
6	7	203	2020-12-05	2
9	4	301	2020-12-06	2
10	4	302	2020-12-01	4
NULL	NULL	NULL	NULL	NULL

2. Write a query to retrieve the most sold product per day in a specific location (take any location) in last week.

```
SELECT
    prod_code,product_name,date_purchase, COUNT(*) AS no_sold
FROM
    sale s
    JOIN
        customer c ON s.cust_id = c.cust_id
        join
            product p on p.product_code = s.prod_code
WHERE
    cust_location_id = 1
    AND s.date_purchase BETWEEN '2020/12/1' AND '2020/12/8'

GROUP BY prod_code,s.date_purchase
ORDER BY COUNT(*) DESC;
```

prod_code	product_name	date_purchase	no_sold
102	milk	2020-12-01	2
202	laptop	2020-12-05	1
201	tv	2020-12-01	1
202	laptop	2020-12-02	1

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

```
1 SELECT
2     prod_code,product_name,date_purchase, COUNT(*) AS no_sold
3 FROM
4     sale s
5     JOIN
6         customer c ON s.cust_id = c.cust_id
7         join
8             product p on p.product_code = s.prod_code
9 WHERE
10     cust_location_id = 1
11     AND s.date_purchase BETWEEN '2020/12/1' AND '2020/12/8'
12
13 GROUP BY prod_code,s.date_purchase
14 ORDER BY COUNT(*) DESC;
15
```

The Results window displays the output of the query:

prod_code	product_name	date_purchase	no_sold
102	milk	2020-12-01	2
201	tv	2020-12-01	1
202	laptop	2020-12-05	1
202	laptop	2020-12-02	1

The left sidebar shows the database schema with the 'company\_sales' database selected. The 'product' table is highlighted, showing its columns: product\_code (varchar(20) PK), product\_name (varchar(255)), unit\_price (float), and category\_code (varchar(20)). The bottom status bar indicates 'Result 34 x' and 'Output'.

3)Write a query to list all the sales persons details along with the count of products sold by them (if any) till current date.

```
SELECT
    sale.ex_id,sales_ex.ex_name, SUM(units) as no_products_sold
FROM
    sale
    INNER JOIN
    sales_ex ON sale.ex_id = sales_ex.ex_id
GROUP BY sale.ex_id
order by no_products_sold desc;
```

ex_id	ex_name	no_products_sold
7	sankari	10
2	arthi	7
4	kaviya	6
8	varshini	2
5	sanjay	2
6	santhosh	1

MySQL Workbench

Local instance MySQL80 x

File Edit View Query Database Server Tools Scripting Help

Navigator

SCHEMAS

Filter objects

company\_sales

Tables

category

Columns

Indexes

Foreign Keys

Triggers

customer

location

product

Columns

product\_code

product\_name

unit\_price

category\_code

Indexes

Foreign Keys

Triggers

sale

Columns

cust\_id

ex\_id

prod\_code

date\_purchase

Administration Schemas

Information

Table: product

Columns:

product\_code varchar(20) PK

product\_name varchar(255)

unit\_price float

category\_code varchar(20)

Related Tables:

Target category (category\_code → category\_code)

On Update RESTRICT

On Delete RESTRICT

Object Info Session

SQL File 3\* SQL File 4\* Administration - Data Export SQL File 5\* SQL File 6\* SQL File 7\* SQL File 8\* SQL File 9\*

Limit to 1000 rows

```
1 SELECT
2   sale.ex_id,sales_ex.ex_name, SUM(units) as no_products_sold
3 FROM
4   sale
5   INNER JOIN
6   sales_ex ON sale.ex_id = sales_ex.ex_id
7 GROUP BY sale.ex_id
8 order by no_products_sold desc;
```

Result Grid

ex_id	ex_name	no_products_sold
7	sankari	10
2	arshi	7
4	kaviya	6
8	varshini	2
5	sanjay	2
6	santhosh	1

Result 8 x

Output

SQLAdditions

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

Read Only Context Help Snippets

ENG 21:33