

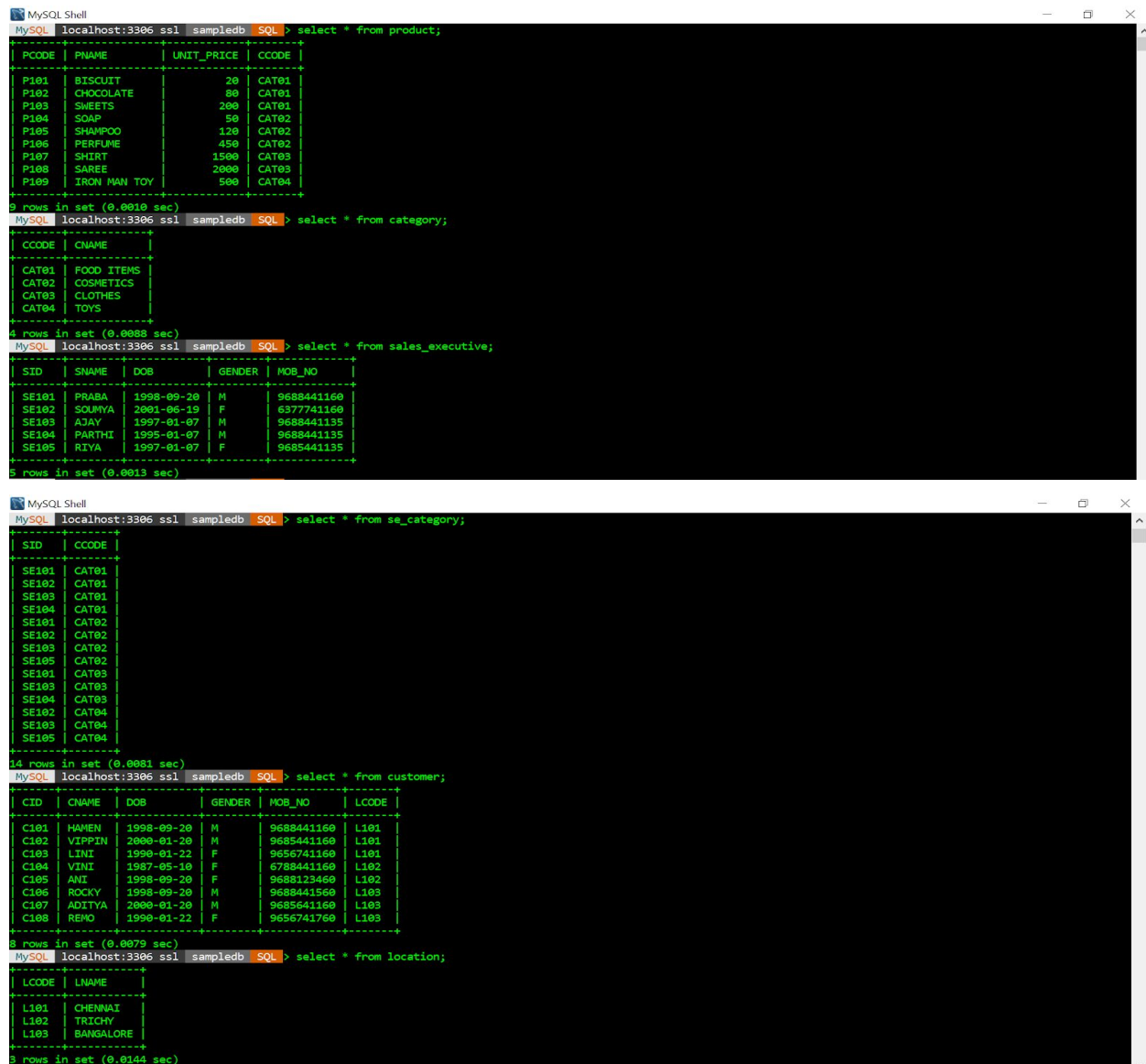
# SQL Concepts

Prabhakar

1. Assuming you are ready with the 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.

- The script file contains all the creating database, table and inserting queries.

Table with values:



```
MySQL Shell
MySQL localhost:3306 ssl sampledbs SQL > select * from product;
```

PCODE	PNAME	UNIT_PRICE	CCODE
P101	BISCUIT	20	CAT01
P102	CHOCOLATE	80	CAT01
P103	SWEETS	200	CAT01
P104	SOAP	50	CAT02
P105	SHAMPOO	120	CAT02
P106	PERFUME	450	CAT02
P107	SHIRT	1500	CAT03
P108	SAREE	2000	CAT03
P109	IRON MAN TOY	500	CAT04

```
8 rows in set (0.0010 sec)
MySQL localhost:3306 ssl sampledbs SQL > select * from category;
```

CCODE	CNAME
CAT01	FOOD ITEMS
CAT02	COSMETICS
CAT03	CLOTHES
CAT04	TOYS

```
4 rows in set (0.0088 sec)
MySQL localhost:3306 ssl sampledbs SQL > select * from sales_executive;
```

SID	SNAME	DOB	GENDER	MOB_NO
SE101	PRABA	1998-09-20	M	9688441160
SE102	SOURYA	2001-06-19	F	6377741160
SE103	AJAY	1997-01-07	M	9688441135
SE104	PARTHVI	1995-01-07	M	9688441135
SE105	RIVYA	1997-01-07	F	9688441135

```
5 rows in set (0.0013 sec)
MySQL localhost:3306 ssl sampledbs SQL > select * from se_category;
```

SID	CCODE
SE101	CAT01
SE102	CAT01
SE103	CAT01
SE104	CAT01
SE101	CAT02
SE102	CAT02
SE103	CAT02
SE105	CAT02
SE101	CAT03
SE103	CAT03
SE104	CAT03
SE102	CAT04
SE105	CAT04

```
14 rows in set (0.0081 sec)
MySQL localhost:3306 ssl sampledbs SQL > select * from customer;
```

CID	CNAME	DOB	GENDER	MOB_NO	LCODE
C101	HAMEN	1998-09-20	M	9688441160	L101
C102	VIPPIN	2000-01-20	M	9685441160	L101
C103	LINI	1990-01-22	F	9656741160	L101
C104	VINI	1987-05-10	F	6788441160	L102
C105	ANI	1998-09-20	F	9688123460	L102
C106	ROCKY	1998-09-20	M	9688441560	L103
C107	ADITYA	2000-01-20	M	9685641160	L103
C108	REMO	1990-01-22	F	9656741760	L103

```
8 rows in set (0.0079 sec)
MySQL localhost:3306 ssl sampledbs SQL > select * from location;
```

LCODE	LNAME
L101	CHENNAI
L102	TRICHY
L103	BANGALORE

```
3 rows in set (0.0144 sec)
```

MySQL Shell

mysql localhost:3306 ssl sampledb SQL > select \* from order\_t;

ORDER_ID	CID	SID	DOP
O101	C101	SE101	2021-01-03
O102	C102	SE101	2021-01-03
O103	C103	SE101	2021-01-03
O104	C101	SE102	2021-01-04
O105	C102	SE102	2021-01-04
O106	C102	SE102	2021-01-08
O107	C104	SE104	2021-01-05
O108	C105	SE104	2021-01-05
O109	C105	SE105	2021-01-06
O110	C104	SE105	2021-01-06
O111	C108	SE102	2021-01-07
O112	C103	SE105	2021-01-09
O113	C101	SE101	2021-01-10
O114	C104	SE102	2021-01-10
O115	C102	SE103	2021-01-10

15 rows in set (0.0012 sec)

mysql localhost:3306 ssl sampledb SQL > select \* from order\_product;

PCODE	ORDER_ID	UNITS
P101	O101	3
P101	O105	1
P101	O106	3
P101	O107	10
P101	O108	4
P101	O112	3
P102	O102	1
P102	O111	2
P103	O104	10
P103	O110	1
P104	O102	2
P104	O115	6
P105	O101	2
P105	O105	3
P106	O102	3
P106	O106	5
P106	O109	3
P106	O114	5
P107	O103	6
P107	O113	4
P108	O103	3

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

- Most sold products in a location (Chennai - "L101") in last week.

Query:

View for order details along with its product details:

```
CREATE VIEW ORDER_DETAIL AS ( SELECT OT.ORDER_ID, OT.SID, OT.CID, OPD.PCODE, OPD.PNAME,
OPD.UNITS, OT.DOP FROM ORDER_T OT INNER JOIN (SELECT ORDER_ID, OP.PCODE, PNAME, UNITS
FROM ORDER_PRODUCT OP INNER JOIN PRODUCT P ON P.PCODE = OP.PCODE) OPD ON OPD.ORDER_ID
= OT.ORDER_ID);
```

View for products that is sold on chennai in last seven days with units:

```
CREATE VIEW TEMP AS (SELECT PCODE, DOP, SUM(UNITS) UNITS FROM ORDER_DETAIL OD INNER JOIN
(SELECT CID FROM CUSTOMER WHERE LCODE = "L101") CT ON CT.CID = OD.CID AND OD.DOP > NOW() -
INTERVAL 1 WEEK GROUP BY PCODE, DOP);
```

Final Query:

```
SELECT T.DOP, P.PNAME, T.MAX_UNITS FROM PRODUCT P JOIN
(SELECT TEMP.DOP, TEMP.PCODE, T.MAX_UNITS FROM TEMP JOIN
(SELECT DOP, MAX(UNITS) MAX_UNITS FROM TEMP GROUP BY DOP) T
ON T.DOP = TEMP.DOP AND TEMP.UNITS = T.MAX_UNITS) T ON P.PCODE = T.PCODE;
```

```
MySQL Shell
MySQL localhost:3306 ssl sampledbs SQL > SELECT T.DOP, P.PNAME, T.MAX_UNITS FROM PRODUCT P JOIN
-> (SELECT TEMP.DOP, TEMP.PCODE, T.MAX_UNITS FROM TEMP JOIN
-> (SELECT DOP, MAX(UNITS) MAX_UNITS FROM TEMP GROUP BY DOP) T
-> ON T.DOP = TEMP.DOP AND TEMP.UNITS = T.MAX_UNITS) T ON P.PCODE = T.PCODE;

+-----+-----+-----+
| DOP   | PNAME | MAX_UNITS |
+-----+-----+-----+
| 2021-01-08 | PERFUME | 5 |
| 2021-01-18 | SOAP | 6 |
| 2021-01-09 | BISCUIT | 3 |
+-----+-----+-----+
3 rows in set (0.0033 sec)

MySQL localhost:3306 ssl sampledbs SQL >
```

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.

Query:

```
SELECT SE.*, IFNULL(S.CNT,0) AS NO_OF_PRODUCT_SOLD FROM SALES_EXECUTIVE SE JOIN
(SELECT SID, COUNT(PCODE) AS CNT FROM ORDER_PRODUCT OP JOIN
ORDER_T OT ON OP.ORDER_ID = OT.ORDER_ID GROUP BY SID) S
ON SE.SID = S.SID;
```

```
MySQL localhost:3306 ssl sampledbs SQL > SELECT SE.*, IFNULL(S.CNT,0) AS NO_OF_PRODUCT_SOLD FROM SALES_EXECUTIVE SE JOIN
-> (SELECT SID, COUNT(PCODE) AS CNT FROM ORDER_PRODUCT OP JOIN
-> ORDER_T OT ON OP.ORDER_ID = OT.ORDER_ID GROUP BY SID) S
-> ON SE.SID = S.SID;

+-----+-----+-----+-----+-----+-----+
| SID | SNAME | DOB   | GENDER | MOB_NO | NO_OF_PRODUCT_SOLD |
+-----+-----+-----+-----+-----+-----+
| SE101 | PRABA | 1998-09-20 | M | 9688441160 | 8 |
| SE102 | SOURYA | 2001-06-19 | F | 6377741160 | 7 |
| SE103 | ADAR | 1997-01-07 | M | 9688441135 | 1 |
| SE104 | PARTHI | 1995-01-07 | M | 9688441135 | 2 |
| SE105 | RIYA | 1997-01-07 | F | 9685441135 | 3 |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.0013 sec)

MySQL localhost:3306 ssl sampledbs SQL >
```

Note: All the queries are in the script file that i have attached.