## **ASSSIGNMENT 2**

NAME: ROLL NO:
<b>PROBLEM STATEMENT:</b> DESIGN AND DEVELOP SQL DDL STATEMENTS WHICH DEMONSTRATE THE USE OF SQL OBJECTS SUCH AS TABLE.
**************************************
A) CREATE TABLES  CLIENT_MASTER, PRODUCT_MASTER, SALESMAN_MASTER, SALES_ORDER, SALES_ORDER_DETAILS.
mysql> create database ENGG; Query OK, 1 row affected (0.00 sec)
mysql> use ENGG; Database changed
<del></del>
>CREATE TABLE CLIENT_MASTER(CLIENT_NO VARCHAR (6), NAME VARCHAR (20), ADDRESS1 VARCHAR (30), ADDRESS2 VARCHAR (30), CITY VARCHAR (15), PINCODE INTEGER (8), STATE VARCHAR (15), BAL_DUE FLOAT (10,2), PRIMARY KEY (CLIENT_NO)); Query OK, 0 rows affected (0.08 sec)
mysql> DESC CLIENT_MASTER;
++   Field   Type   Null   Key   Default   Extra
++   CLIENT_NO   varchar(6)   NO   PRI
8 rows in set (0.00 sec)

mysql> CREATE TABLE PRODUCT\_MASTER (PRODUCT\_NO VARCHAR (6),

DESCRIPTION VARCHAR (15) NOT NULL, PROFIT\_PERSCENT FLOAT (4,2) NOT NULL, UNIT\_MEASURE VARCHAR (10) NOT NULL, QTY\_ON\_HAND INTEGER (8) NOT NULL, REORDER\_LVL INTEGER (8) NOT NULL, SELL\_PRICE FLOAT (8,2) NOT NULL, COST\_PRICE FLOAT (8,2) NOT NULL, PRIMARY KEY (PRODUCT\_NO)); Query OK, 0 rows affected (0.08 sec)

mysql> CREATE TABLE SALESMAN\_MASTER (SALESMAN\_NO VARCHAR (6) PRIMARY KEY, SALESMAN\_NAME VARCHAR (20) NOT NULL, ADDRESS1 VARCHAR (30) NOT NULL, ADDRESS2 VARCHAR (30), CITY VARCHAR (20), PINCODE FLOAT (8,2), STATE VARCHAR (20), SAL\_AMT FLOAT (8,2) NOT NULL, TGT\_TO\_GET FLOAT (6,2) NOT NULL, YTD\_SALES FLOAT (6,2) NOT NULL, REMARKS VARCHAR (60)); Query OK, 0 rows affected (0.06 sec)

```
mysgl> DESC SALESMAN MASTER;
+----+
| Field | Type | Null | Key | Default | Extra | +-----+
l Field
| SALESMAN NO | varchar(6) | NO | PRI | NULL |
| SALESMAN NAME | varchar(20) | NO | | NULL |
ADDRESS1 | varchar(30) | NO | NULL |
            | varchar(30) | YES | NULL |
ADDRESS2
         | varchar(20) | YES | NULL |
CITY
PINCODE
         | float(8,2) | YES | | NULL |
          | varchar(20) | YES | | NULL |
STATE
         | float(8,2) | NO | | NULL |
SAL AMT
TGT TO GET | float(6,2) | NO | | NULL |
YTD SALES | float(6,2) | NO | NULL |
| REMARKS | varchar(60) | YES | | NULL |
+----+
11 rows in set (0.00 sec)
```

mysql> CREATE TABLE SALES\_ORDER (ORDER\_NO VARCHAR (6) PRIMARY KEY,CLIENT\_NO VARCHAR (6), ORDER\_DATE DATE NOT NULL, DELY\_ADDR VARCHAR (25), SALESMAN NO VARCHAR (6), DELY TYPE CHAR (1), BILLYN CHAR

(1), DELY\_DATE DATE, ORDER\_STATUS VARCHAR (10), FOREIGN KEY (CLIENT\_NO) REFERENCES CLIENT\_MASTER (CLIENT\_NO), FOREIGN KEY (SALESMAN\_NO) REFERENCES SALESMAN\_MASTER (SALESMAN\_NO)); Query OK, 0 rows affected (0.14 sec)

```
mysql> DESC SALES ORDER;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
ORDER_NO | varchar(6) | NO | PRI | NULL |
CLIENT_NO | varchar(6) | YES | MUL | NULL |
ORDER DATE | date | NO | NULL |
DELY ADDR | varchar(25) | YES | | NULL |
SALESMAN NO | varchar(6) | YES | MUL | NULL
DELY_TYPE | char(1) | YES | | NULL |
       |char(1) |YES | |NULL |
I BILLYN
|DELY DATE |date |YES | |NULL |
| ORDER STATUS | varchar(10) | YES | | NULL |
+----+
9 rows in set (0.00 sec)
```

mysql> CREATE TABLE SALES\_ORDER\_DETAILS (ORDER\_NO VARCHAR (6), PRODUCT\_NO VARCHAR (6), QTY\_ORDERED INTEGER (8), QTY\_DISP INTEGER (8), PRODUCT\_RATE FLOAT (10,2), FOREIGN KEY (ORDER\_NO) REFERENCES SALES\_ORDER (ORDER\_NO), FOREIGN KEY (PRODUCT\_NO) REFERENCES PRODUCT\_MASTER (PRODUCT\_NO)); Query OK, 0 rows affected (0.12 sec)

\*

## B) INSERT THE DATA INTO THEIR RESPECTIVE TABLES.

```
mysql>
INSERT INTO
CLIENT_MASTER(CLIENT_NO,NAME,ADDRESS1,ADDRESS2,CITY,PINCODE,STATE,
BAL_DUE)
VALUES
('C00001','IVAN
```

```
BAYROSS'.'NASHIK'.'YEOLA'.'MUMBAI'.'400054'.'MAHARASHTRA'.'15000').
 ('C00002', 'MAMTA MUZUMDAR', 'NIMANI', 'CBS', 'MADRAS', '780001', 'TAMIL NADU', '0').
  ('C00003'.'CHHAYA
BANKER', 'DWARKA', 'ASHOKNAGAR', 'MUMBAI', '400057', 'MAHARASHTRA', '5000').
 ('C00004','ASHWINI
JOSHI', 'RK', 'SHALIMAR', 'BANGALORE', '560001', 'KARNATAKA', '0'),
 ('C00005'.'HANSEL
COLACO', 'KOPARGAON', 'LASLGAON', 'MUMBAI', '400060', 'MAHARASHTRA', '2000'),
  ('C00006','DIPAK
SHARMA', 'VAIJAPUR', 'VINCHUR', 'BANGALORE', '560050', 'KARNATAKA', '0');
Query OK. 6 rows affected (0.02 sec)
Records: 6 Duplicates: 0 Warnings: 0
| CLIENT_NO | NAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE | STATE
| BALDUE |
| C00001 | IVAN BAYROSS | NASHIK | YEOLA | MUMBAI | 400054 |
MAHARASHTRA | 15000.00 |
| C00002 | MAMTA MUZUMDAR | NIMANI | CBS | MADRAS | 780001 | TAMIL
NADU I
        0.00 l
| C00003 | CHHAYA BANKER | DWARKA | ASHOKNAGAR | MUMBAI | 400057 |
MAHARASHTRA | 5000.00 |
| C00004 | ASHWINI JOSHI | RK | SHALIMAR | BANGALORE | 560001 |
KARNATAKA | 0.00 |
| C00005 | HANSEL COLACO | KOPARGAON | LASLGAON | MUMBAI | 400060 |
MAHARASHTRA | 2000.00 |
| C00006 | DIPAK SHARMA | VAIJAPUR | VINCHUR | BANGALORE | 560050 |
KARNATAKA | 0.00 |
6 rows in set (0.00 sec)
mvsal> INSERT INTO
PRODUCT MASTER(PRODUCT NO, DESCRIPTION, PROFIT PERSCENT, UNIT MEAS
URE, QTY ON HAND, REORDER LVL, SELL PRICE, COST PRICE) VALUES
('P0001','T-SHIRTS','5','PIECE','200','50','350','250'),
('P0345','SHIRTS','6','PIECE','150','50','500','350'), ('P06734','COTTON
JEANS','5','PIECE','100','20','600','450'),
('P07865','JEANS','5','PIECE','100','20','750','500'),
('P07868', 'TROUSERS', '2', 'PIECE', '150', '50', '850', '550'), ('P07885', 'PULL
OVERS', '2.5', 'PIECE', '80', '30', '700', '450'), ('P07965', 'DEIM
SHIRTS','4','PIECE','100','40','350','250'), ('P07975','LYCRA
TOPS', '5', 'PIECE', '70', '30', '300', '175'), ('P08865', 'SKIRTS', '5', 'PIECE', '75', '30', '450', '300');
Query OK, 9 rows affected (0.02 sec)
Records: 9 Duplicates: 0 Warnings: 0
mysql> SELECT *FROM PRODUCT MASTER;
```

-+   P0001	-++   T-SHIRTS		5.00   PIECE			 00			+ 50.00
250.00			0.00   51505		4 = 4		<b>5</b> 0.1	=0	
P0345 350.00	SHIRTS		6.00   PIECE	ļ	150	)	50	500	0.00
P06734   450.00	COTTON JE	ANS	5.00   F	PIECE	I	100	I	20	600.00
P07865 500.00	JEANS		5.00   PIECE		10	0	20	75	0.00
P07868 550.00	TROUSERS		2.00   PIE	CE		150	50	)	850.00
P07885 450.00	PULL OVER	RS	2.50   PIE	CE		80	30	)	700.00
P07965 250.00	DEIM SHIRT	ΓS	4.00   PIE	CE	1	100	40	)	350.00
P07975 175.00	LYCRA TOP	PS	5.00   PIE	CE		70	30	)	300.00
P08865 300.00	SKIRTS		5.00   PIECE	- 1	75	5	30	450	0.00
+	++		+	+	+		+		+
+	set (0.00 sec)		+	+	+		+		+
+		ALESM L_AMT	AN_NO,SALE ,TGT_TO_GE	SMAN_ T,YTD_	_NAME	E,ADDF S,REM	RESS1,	AD[ VAL	DRESS2,CI LUES
+	set (0.00 sec) SERT INTO N_MASTER(SA) DE,STATE,SAI 'AMAN','A/14','W 'OMKAR','65','N 'S00003','RAJ','I	ALESM L_AMT VORLI' ARIMA P-	AN_NO,SALE ,TGT_TO_GE ,'MUMBAI','400	SMAN_ T,YTD_ 0002','M	_NAME SALES IAHAF ','MAH	E,ADDF S,REM, RSHTR, ARSH1	RESS1, ARKS) A','3000	AD[ VAL )','10	DRESS2,CI LUES D0','50','GO
+	set (0.00 sec)  SERT INTO AN_MASTER(SA) DDE,STATE,SAI 'AMAN','A/14','W	ALESM L_AMT VORLI' ARIMA P- 00032', JUHU','	AN_NO,SALE, ,TGT_TO_GE; ,'MUMBAI','400 .N','MUMBAI','4 'MAHARSHTF MUMBAI','400	SMAN_ T,YTD_ 0002','N 400001	_NAME SALES IAHAF ','MAH 0','200	E,ADDF S,REM, RSHTR, ARSH1	RESS1, ARKS) A','3000 FRA','30	ADE VAL D','10 D00',	DRESS2,CI LUES 00','50','GO ,'200','100','

| SALESMAN\_NO | SALESMAN\_NAME | ADDRESS1 | ADDRESS2 | CITY | PINCODE

| A/14 | WORLI | MUMBAI | 400002.00 | MAHARSHTRA |

| NARIMAN | MUMBAI | 400001.00 | MAHARSHTRA |

| SAL\_AMT | TGT\_TO\_GET | YTD\_SALES | REMARKS |

50.00 | GOOD |

| 65

| S00001

3000.00 |

| S00002

| AMAN

100.00 | | OMKAR

```
3000.001
          200.00 | 100.00 | GOOD
          I RAJ
I S00003
                   | P-7 | BANDRA | MUMBAI | 400032.00 | MAHARSHTRA |
3000.00 |
          200.00 |
                  100.00 | GOOD |
I S00004
          I ASHISH
                      I A/5
                            I JUHU
                                    | MUMBAI | 400044.00 | MAHARSHTRA |
3000.00 |
          200.00 | 150.00 | GOOD |
----+
4 rows in set (0.00 sec)
mysgl> insert into SALES ORDER
(ORDER NO, CLIENT NO, ORDER DATE, DELY ADDR, SALESMAN NO, DELY TYPE, B
ILLYN, DELY DATE, ORDER STATUS)
values
('O19001','C00001','04-06-12','NASHIK','S00001','F','N','02-07-20','In Process'),
('O19002','C00002','04-06-25','NASHIK','S00002','P','N','02-06-27','Cancelled'),
('O46865','C00003','04-02-18','NASHIK','S00003','F','Y','02-02-20','Fulfilled'),
('O19003','C00001','04-04-03','NASHIK','S00001','F','Y','02-04-07','Fulfilled').
('O46866', 'C00004', '04-05-20', 'NASHIK', 'S00002', 'P', 'N', '02-05-22', 'Cancelled'),
('O19008','C00005','04-05-24','NASHIK','S00004','F','N','02-07-26','In Process');
Query OK, 6 rows affected (0.33 sec)
Records: 6 Duplicates: 0 Warnings: 0
mysgl> select * from SALES ORDER;
+-----+
| ORDERNO | CLIENTNO | ORDER DATE | DELY ADDR | SALESMANNO | DELYTYPE
| BILLYN | DELYDATE | ORDERSTATUS |
| N
| O19001 | C00001 | 2004-06-12 | NASHIK | S00001 | F
                                                            | 2002-07-20 | In
Process I
| O19002 | C00002 | 2004-06-25 | NASHIK | S00002
                                                ΙP
                                                      l N
                                                           | 2002-06-27 |
Cancelled |
| O19003 | C00001 | 2004-04-03 | NASHIK | S00001
                                                ۱F
                                                      | Y
                                                           | 2002-04-07 |
Fulfilled |
| O19008 | C00005 | 2004-05-24 | NASHIK | S00004
                                                ۱F
                                                      | N
                                                           | 2002-07-26 | In
Process 1
| O46865 | C00003 | 2004-02-18 | NASHIK
                                     I S00003
                                                ۱F
                                                      | Y
                                                           | 2002-02-20 |
Fulfilled I
| O46866 | C00004 | 2004-05-20 | NASHIK | S00002
                                               ΙP
                                                           | 2002-05-22 |
                                                      | N
Cancelled |
6 rows in set (0.00 sec)
```

mysql> insert into SALES\_ORDER\_DETAILS (ORDER\_NO,PRODUCT\_NO,QTY\_ORDERED,QTY\_DISP,PRODUCT\_RATE) values ('O19001','P0001','4','4','525'), ('O19001','P07965','2','1','8400'),

```
('O19001','P07885','2','1','5250'),
('O19002','P0001','10','0','525'),
('O46865','P07868','3','3','3150'),
('O46865', 'P07885', '3', '1', '5250'),
('O46865','P0001','10','10','525'),
('O46865', 'P0345', '4', '4', '1050'),
('O19003','P0345','2','2','1050'),
('O19003', 'P06734', '1', '1', '12000'),
('O46866','P07965','1','0','8400'),
('O46866','P07975','1','0','1050'),
('O19008','P0001','10','5','525'),
('O19008','P07975','5','3','1050');
mvsal> select * from SALES ORDER DETAILS;
+-----+
| ORDERNO | PRODUCTNO | QTYORDERED | QTYDISP | PRODUCTRATE |
+----+
I O19001 | P0001
                     4 |
                             4 |
                                  525.00 I
                     2 | 1 |
2 | 1 |
O19001 | P07965 |
                                8400.00 |
O19001 | P07885 |
                                 5250.00
O19002 | P0001
                            0 | 525.00 |
                      10 |
O46865 | P07868 |
                                 3150.00 I
                       3 |
                            3 |
O46865 | P07885 |
                       3 |
                             1 | 5250.00 |
                      10 |
 O46865 | P0001
                            10 | 525.00 |
                                 1050.00 |
O46865 | P0345
                      4 |
                            4 |
O19003 | P0345 |
                       2 |
                             2 |
                                 1050.00 l
O19003 | P06734 |
                      1 | 1 | 12000.00 |
                       1 | 0 | 8400.00 |
1 | 0 | 1050.00 |
 O46866 | P07965
O46866 | P07975 |
                      10 | 5 | 525.00 |
O19008 | P0001 |
| O19008 | P07975 |
                      5 |
                             3 | 1050.00 |
+-----+
14 rows in set (0.00 sec)
             C) EXERCISE ON ALTERING THE TABLE STRUCTURE.
1) Add column called 'Telephone' of data type 'number' and size '10' to the
'CLIENT MASTER' table.
mysgl> alter table CLIENT MASTER add TELEPHONE integer(10);
Query OK, 6 rows affected (0.58 sec)
Records: 6 Duplicates: 0 Warnings: 0
mysql> DESC CLIENT MASTER;
+----+
| Field | Type | Null | Key | Default | Extra |
+----+
| CLIENT NO | varchar(6) | NO | PRI |
NAME | varchar(20) | YES | NULL |
| ADDRESS1 | varchar(30) | YES | | NULL |
```

```
| ADDRESS2 | varchar(30) | YES | | NULL |
CITY | varchar(15) | YES | | NULL |
| PINCODE | int(8) | YES | NULL |
STATE | varchar(15) | YES | NULL |
|BAL DUE |float(10,2)|YES | |NULL |
| TELEPHONE | int(10) | YES | NULL |
+----+
9 rows in set (0.01 sec)
```

## 2) Change the size of SellPrice column in PRODUCT MASTER to 10,2.

mysgl> alter table PRODUCT MASTER modify column SELL PRICE float (10,2): Query OK, 9 rows affected (0.52 sec) Records: 9 Duplicates: 0 Warnings: 0

mysgl> DESC PRODUCT MASTER: +----+ | Field | Type | Null | Key | Default | Extra | +----+ | PRODUCT NO | varchar(6) | NO | PRI | DESCRIPTION | varchar(15) | NO | | NULL | | | PROFIT PERSCENT | float(4,2) | NO | | NULL | |UNIT\_MEASURE |varchar(10)|NO | |NULL | |QTY\_ON\_HAND |int(8) |NO | |NULL | REORDER LVL | int(8) | NO | | NULL | | SELL PRICE | float(10,2) | YES | | NULL | | COST\_PRICE | float(8,2) | NO | | NULL | +-----+----+-----+

8 rows in set (0.00 sec)

3) Destroy the table CLIENT\_MASTER along with its data.

Mysql> DROP TABLE CLIENT MASTER;

mysgl> desc CLIENT MASTER;

ERROR 1146 (42S02): Table 'ASS 1 to 4.CLIENT MASTER' doesn't exist

## 4) Change the name of the SALESMAN\_MASTER to SMAN\_MAST.

mysql> rename table SALESMAN MASTER to Sman mast; Query OK, 0 rows affected (0.04 sec)

mysql> show tables;

```
| Tables in ASS 1 to 4 |
| CLIENT MASTER
PRODUCT MASTER
| SALES ORDER |
| SALES ORDER DETAILS |
Sman_mast |
+----+
5 rows in set (0.00 sec)
         D) Write appropriate SQL statements for the following:
1) Create a simple index idx Prod on product cost price from the Product Master
Table.
mysql> CREATE INDEX idx Prod ON PRODUCT MASTER (COST PRICE);
Query OK, 0 rows affected (0.17 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysgl> show index from PRODUCT MASTER;
---+-----+
Table | Non unique | Key name | Seg in index | Column name | Collation |
Cardinality | Sub_part | Packed | Null | Index_type | Comment | Index_comment |
___+___+
NULL | NULL | | BTREE | | |
```

2) Create View on Order\_No, Order\_Date, Order\_Status of the sales\_order table and productNo. ProductRate and QTYOrdered of Sales\_Order\_Details.

mysql> CREATE VIEW vw\_Sal\_Ord AS
-> SELECT s.ORDER\_NO, s.ORDER\_DATE, sod.PRODUCT\_NO,
sod.PRODUCT\_RATE, sod.QTY\_ORDERED, s.ORDER\_STATUS -> FROM
SALES\_ORDER s, SALES\_ORDER\_DETAILS sod WHERE s.ORDER\_NO =
sod.ORDER\_NO;
Query OK, 0 rows affected (0.08 sec)

mysql> desc vw Sal Ord;

---+-----+

2 rows in set (0.00 sec)

```
| Null | Key | Default | Extra |
I Field
         | Type
                  __+___+
ORDER NO
             | varchar(6) | NO |
                                 I NULL I
ORDER DATE | date
                       | NO |
                                | NULL |
PRODUCT NO | varchar(6) | YES | | NULL
PRODUCT RATE | float(10,2) | YES | | NULL |
QTY ORDERED | int(8)
                       |YES | |NULL |
ORDER STATUS | varchar(10) | YES | NULL
+----+
6 rows in set (0.00 sec)
mysql> select * FROM vw Sal Ord;
+-----+
| ORDER NO | ORDER DATE | PRODUCT NO | PRODUCT RATE | QTY ORDERED |
ORDER STATUS |
+-----
I O19001 | I 2004-06-12 | P0001
                                  525.00 I
                                              4 | In Process |
O19001 | 2004-06-12 | P07965
                                  8400.00 I
                                               2 | In Process
O19001
         | 2004-06-12 | P07885
                                  5250.00 |
                                               2 | In Process |
O19002 | 2004-06-25 | P0001
                                 525.00 |
                                              10 | Cancelled |
                                               2 | Fulfilled |
O19003 | 2004-04-03 | P0345
                                 1050.00 l
O19003 | 2004-04-03 | P06734
                                 12000.00 |
                                                1 | Fulfilled
O19008 | 2004-05-24 | P0001
                                 525.00 l
                                              10 | In Process |
O19008 | 2004-05-24 | P07975
                                 1050.00 l
                                               5 | In Process |
O46865 | 2004-02-18 | P07868
                                  3150.00 I
                                               3 | Fulfilled
O46865 | 2004-02-18 | P07885
                                 5250.00 l
                                               3 | Fulfilled
                                              10 | Fulfilled
O46865 | 2004-02-18 | P0001
                                 525.00
                                              4 | Fulfilled
O46865 | 2004-02-18 | P0345
                                 1050.00 |
                                               1 | Cancelled
O46866 | 2004-05-20 | P07965
                                 8400.00 |
| O46866 | 2004-05-20 | P07975
                                  1050.00 |
                                               1 | Cancelled
+----+---+----+-----+-----+-----
14 rows in set (0.00 sec)
```

<sup>3)</sup> Create a Sequence inv\_seq with the following parameters. Increment by 3, cache 4 and which generates the number from 1 to 9999 in acending order.