Institute of Computer Technology

B. Tech Computer Science and Engineering Sub: Database Management System (2CSE301)

Practical 2

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A) Retrieving records from table

1) Find out the names of all clients.

2) Retrieve the list of names and the cities of all the clients

```
mysql> select name, city from client_master;
            city
 name
            bombay
  ivan
 vandana
            madras
            bombay
 pramada
            bombay
  basu
            delhi
  ravi
 rukmani
           bombay
6 rows in set (0.00 sec)
```

3) List the various products available from the product master table.

4) List all the clients who are located in Bombay.

5) Find the names of the salesman who have a salary equal to Rs. 3000

```
mysql> select s_name from salesman_master where sal_amt =3000;
+-----+
| s_name |
+-----+
| kiran |
| manish |
| ravi |
+-----+
3 rows in set (0.00 sec)
```

6) List out only unique values for the city of client_master table

7) Display product_master table according to the sell_price of product.

| mysql> select * from product_master order by sell_price; | | | | | | | | | | | | |
|--|---|---------------------------------|--|------------------------------------|------------------------------|--|--|--|--|--|--|--|
| product_no | description | p_percent | u_mesure | qty_on_hand | reorder_lvl | sell_price | cost_price | | | | | |
| p001 p004 p003 p005 p006 p007 p002 | floppies floppies mouse keyboards cd drive 1.44 drive monitor | 5 5 5 2 3 4 6 | piece piece piece piece piece piece | 100 100 20 10 10 10 | 20 20 5 3 3 3 | 525 525 1050 3150 5100 8400 | 500 500 1000 3050 5100 8000 | | | | | |
| + | +======= | + | t | | | + | ++ | | | | | |

8) Display product_master table according to the sell_price and cost_price.

| mysql> select | mysql> select * from product_master order by sell_price, cost_price; | | | | | | | | | | | |
|---------------|--|-----------|----------|-------------|-------------|------------|------------|--|--|--|--|--|
| product_no | description | p_percent | u_mesure | qty_on_hand | reorder_lvl | sell_price | cost_price | | | | | |
| p001 | floppies | 5 | piece | 100 | 20 | 525 | 500 | | | | | |
| p004 | floppies | 5 | piece | 100 | 20 | 525 | 500 | | | | | |
| p003 | mouse | 5 | piece | 20 | 5 | 1050 | 1000 | | | | | |
| p005 | keyboards | 2 | piece | 10 | 3 | 3150 | 3050 | | | | | |
| p006 | cd drive | 3 | piece | 10 | 3 | 5100 | 5100 | | | | | |
| p007 | 1.44 drive | 4 | piece | 10 | 3 | 8400 | 8000 | | | | | |
| p002 | monitor | j 6 | piece | 10 | 3 | 12000 | 11280 | | | | | |
| + | + | + | + | + | + | | ++ | | | | | |

9) Display product_no, description in descending order of sell_price for product_master table.

```
mysql> select product_no, description from product_master order by sell_price desc;
 product_no | description
  p002
               monitor
 p007
               1.44 drive
               cd drive
  p006
  p005
               keyboards
  p003
  p001
               floppies
  p004
               floppies
  rows in set (0.00 sec)
```

B) Updating records in a table.

1) Change the city of client_no'C002' to 'Bombay'.

```
mysql> update client_master set city= 'bombay' where client_no='c002';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> select * from client_master;
  client_no
                         city
                                   pincode
                                                            bal_due
                                             state
  c001
                         bombay
                                    400054
                                              maharashtra
                                                               15000
               ivan
  c002
               vandana
                         bombay
                                    780001
                                              tamil nadu
  c003
               pramada
                         bombay
                                    400057
                                              maharashtra
                                                                5000
                         bombay
  c004
               basu
                                    400056
                                              maharashtra
                                                                   0
                                              gujarat
  c005
               ravi
                         delhi
                                    100001
                                                                2000
  c006
               rukmani
                         bombay
                                    400050
                                             maharashtra
                                                                   0
 rows in set (0.00 sec)
```

2) Change the bal_due of client_no'C001' to Rs.1000

```
mysql> update client_master set bal_due = 1000 where client_no = 'c001';
Query OK, 1 row affected (0.02 sec)
Rows matched: 1 Changed: 1 Warnings: 0
mysql> select * from client_master;
                         city
                                                            bal_due
                                   pincode
                                              state
  client_no
                         bombay
  c001
                                    400054
                                              maharashtra
                                                                1000
               ivan
              vandana
                                              tamil nadu
  c002
                         bombay
                                    780001
                                                                   0
  c003
               pramada
                         bombay
                                    400057
                                              maharashtra
                                                                5000
                                    400056
  c004
              basu
                         bombay
                                              maharashtra
                                                                   0
  c005
                         delhi
                                    100001
                                              gujarat
                                                                2000
              ravi
  c006
              rukmani
                                    400050
                                             maharashtra
                         bombay
                                                                   0
6 rows in set (0.00 sec)
mysql>
```

3) Change the cost price of Floppies to Rs. 950.00

```
mysql> update product_master set cost_price = 950 where description ='floppies';
Query OK, 2 rows affected (0.01 sec)
Rows matched: 2 Changed: 2 Warnings: 0
mysql> select * from product_master;
 product_no | description |
                                                      qty_on_hand
                                                                     reorder_lvl
                                                                                    sell_price
 p001
               floppies
                                           piece
                                                                                           525
 p002
               monitor
                                       6
                                                                                                       11280
                                                                10
                                                                                3
                                                                                          12000
                                           piece
  p003
               mouse
                                           piece
                                                                20
                                                                                5
                                                                                          1050
                                                                                                        1000
                                           piece
  p004
                floppies
                                                               100
                                                                               20
                                                                                           525
                                                                                                         950
  p005
               keyboards
                                           piece
                                                                10
                                                                                          3150
                                                                                                        3050
                                                                10
  p006
               cd drive
                                           piece
                                                                                          5100
                                                                                                        5100
                                       4
  p007
               1.44 drive
                                           piece
                                                                10
                                                                                          8400
                                                                                                        8000
  rows in set (0.00 sec)
```

4) Change the city of the salesman to Mumbai.

```
mysql> update salesman_master set s_city='mumbai';
ERROR 1054 (42S22): Unknown column 's_city' in 'field list'
mysql> update salesman_master set city='mumbai';
Query OK, 4 rows affected (0.02 sec)
Rows matched: 4 Changed: 4 Warnings: 0
mysql> select * from salesman_master;
  S_no | S_name |
                     city
                                pincode
                                                              sal_amt
                                                                           tgt_to_get
                                                                                          ytd_sales
                                                                                                         remarks
                                             state
  s001
          kiran
                      mumbai
                                  400002
                                             maharashtra
                                                                  3000
                                                                                                   50
                                                                                                         excellent
  s002
                                  400001
                                             maharashtra
                                                                  3000
          manish
                     mumbai
                                                                                   200
                                                                                                  100
                                                                                                          good
  s003
          ravi
                      mumbai
                                  400032
                                             maharashtra
                                                                  3000
                                                                                   200
                                                                                                  100
                                                                                                          average
  s004
          ashish
                      mumbai
                                  400044
                                             maharashtra
                                                                  3500
                                                                                                         good
  rows in set (0.00 sec)
```

C) Deleting records in a table:

1) Delete all salesman from the salesmane_master whose salaries are equal to Rs. 3500.

```
mysql> delete from salesman_master where sal_amt = 3500;
Query OK, 1 row affected (0.02 sec)
mysql> select * from salesman_master;
 S_no | S_name |
                                                     sal_amt |
                  city
                            pincode
                                       state
                                                                tgt_to_get
                                                                              ytd_sales
                                                                                           remarks
  s001
         kiran
                  mumbai
                             400002
                                       maharashtra
                                                         3000
                                                                        100
                                                                                     50
                                                                                           excellent
                                                                                           good
 s002
         manish
                  mumbai
                             400001
                                       maharashtra
                                                         3000
                                                                        200
                                                                                    100
 s003
                  mumbai
                             400032
                                       maharashtra
                                                         3000
                                                                       200
                                                                                    100
         ravi
                                                                                           average
 rows in set (0.00 sec)
```

2) Delete all products from product_master where the quantity on hand is equal to 100.

```
mysql> delete from product_master where qty_on_hand = 100;
Query OK, 2 rows affected (0.02 sec)
mysql> select * from product_master;
  product_no | description
                                 p_percent
                                              u_mesure
                                                           qty_on_hand
                                                                           reorder_lvl | sell_price
                                                                                                          cost_price
  p002
                 monitor
                                               piece
                                                                                                 12000
                                                                                                                11280
  p003
                                              piece
                                                                      20
                                                                                                  1050
                                                                                                                 1000
                 mouse
  .
р005
                                                                      10
                                                                                                  3150
                                                                                                                 3050
                 keyboards
                                              piece
  p006
                 cd drive
                                          3
                                               piece
                                                                                                  5100
                                                                                                                 5100
                                                                      10
                                                                                                  8400
                 1.44 drive
                                                                      10
  p007
                                               piece
                                                                                                                 8000
  rows in set (0.00 sec)
```

3) Delete from client_master where the column state holds the value 'Tamil Nadu'.

```
mysql> delete from client_master where state= 'tamil nadu';
Query OK, 1 row affected (0.00 sec)
mysql> select * from client_master;
 client_no
                         city
                                   pincode
                                                            bal_due
  c001
               ivan
                         bombay
                                    400054
                                              maharashtra
                                                                1000
  c003
               pramada
                         bombay
                                    400057
                                                                5000
                                              maharashtra
  c004
              basu
                         bombay
                                    400056
                                              maharashtra
                                                                   0
  c005
                                                                2000
               ravi
                         delhi
                                    100001
                                              gujarat
  c006
               rukmani
                                    400050
                         bombay
                                              maharashtra
                                                                   0
 rows in set (0.00 sec)
```

E) Altering the table structure:

1) Add a column called 'telephone' of datatype 'number' and size=10 to the client master table.

```
mysql> alter table client_master
    -> add column telephone numeric(10);
Query OK, 0 rows affected (0.04 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> select * from client_master;
  client_no
                                                                       telephone
                         city
                                   pincode
                                             state
                                                            bal_due
               name
  c001
                                    400054
                                              maharashtra
                                                                1000
                                                                            NULL
               ivan
                         bombay
  c003
                         bombay
                                    400057
                                                                5000
                                                                            NULL
               pramada
                                              maharashtra
  c004
               basu
                         bombay
                                    400056
                                              maharashtra
                                                                   0
                                                                            NULL
  c005
               ravi
                         delhi
                                    100001
                                              quiarat
                                                                2000
                                                                            NULL
  c006
                                    400050
               rukmani
                         bombay
                                              maharashtra
                                                                   0
                                                                            NULL
5 rows in set (0.00 sec)
```

2) Change the size of sell_price column in product_master to 10,2.

```
mysql> alter table product_master
-> modify column sell_price decimal(10,2);
Query OK, 5 rows affected (0.07 sec)
Records: 5 Duplicates: 0 Warnings: 0
mysql> select * from product_master;
  product_no
                  description | p_percent | u_mesure
                                                                qty_on_hand |
                                                                                  reorder_lvl
                                                                                                    sell_price
                                                                                                      12000.00
                  monitor
                                                   piece
                                                                                                                           11280
                                                                            20
                                                                                                       1050.00
  p003
                  mouse
                                                   piece
                                                                                                                           1000
                                                                            10
                                                                                                       3150.00
                                                                                                                           3050
  p005
                  keyboards
                                                   piece
                                                                                               3
                                                                                                       5100.00
8400.00
  p006
                  cd drive
                                                   piece
                                                                            10
                                                                                                                           5100
  p007
                  1.44 drive
                                                                                                                           8000
                                                   piece
5 rows in set (0.00 sec)
```

3) Rename column telephone to new name as contact for client_master table.

```
mysql> select * from client_master;
  client_no
                          city
                                    pincode
                                               state
                                                              bal_due
                                                                         contact
               name
  c001
                                     400054
                                               maharashtra
                                                                 1000
                                                                         NULL
               ivan
                          bombay
  c003
               pramada
                          bombay
                                     400057
                                               maharashtra
                                                                 5000
                                                                         NULL
  c004
                          bombay
                                     400056
                                               maharashtra
                                                                     0
                                                                         NULL
               basu
                          delhi
  c005
               ravi
                                     100001
                                               gujarat
                                                                 2000
                                                                         NULL
  c006
               rukmani
                          bombav
                                     400050
                                               maharashtra
                                                                         NULL
 rows in set (0.00 sec)
```

4) Delete column contact from client_master table.

```
mysgl> alter table client_master
    -> drop column contact;
Query OK, 0 rows affected (0.03 sec)
Records: 0 Duplicates: 0 Warnings: 0
mysql> select * from client_master;
                                   pincode
  client_no
                         city
                                                            bal_due
              name
                                             state
  c001
               ivan
                         bombav
                                    400054
                                             maharashtra
                                                                1000
                                                                5000
  c003
                                    400057
                                             maharashtra
               pramada
                         bombay
  c004
                         bombay
                                    400056
                                             maharashtra
                                                                   0
               basu
  c005
               ravi
                         delhi
                                    100001
                                             gujarat
                                                                2000
                                    400050
                                                                   0
  c006
              rukmani
                         bombay
                                             maharashtra
5 rows in set (0.00 sec)
mysql>
```

F) Deleting the table structure along with data:

Create table employee with 4 columns and 5 rows.

1) Destroy the table employee along with its data.

```
mysql> create table employee(eid varchar(5), ename varchar(10), esal numeric(10,2), department varchar(20));
Query OK, 0 rows affected (0.04 sec)
mysql> insert into employee(eid, ename, esal, department)
-> values('1', 'niyati', '90000', 'cse' ),
-> ('2', 'james', '25839', 'accounts'),
-> ('3', 'reyna', '88839', 'cse'),
-> ('4', 'neon', '78839', 'admin'),
-> ('5', 'sage', '48839', 'sales');
Query OK, 5 rows affected (0.02 sec)
Records: 5 Duplicates: 0 Warnings: 0
mysql> select * from employee
   eid
            ename
                              esal
                                                  department
                               90000.00
                niyati
                                                  cse
   2
3
                               25839.00
                james
                                                  accounts
                               88839.00
                reyna
                                                  cse
                               78839.00
                                                  admin
                neon
                               48839.00
                                                  sales
                sage
   rows in set (0.00 sec)
```

```
mysql> drop table employee;
Query OK, 0 rows affected (0.01 sec)
```

G) Renaming the table:

1) Change the name of the salesman_master table to sman mast.

```
mysql> rename table salesman_master to sman_mast;
Query OK, 0 rows affected (0.02 sec)
```