ORACLE ASSIGNMENT

1)

A) Create the table as describe below

Table name : client_master

```
mysql> desc client_master;
+-----------+---------------+------+-----+---------+-------+
| Field     | Type          | Null | Key | Default | Extra |
+-----------+---------------+------+-----+---------+-------+
| client_no | varchar(6)    | NO   | PRI | NULL    |       |
| name      | varchar(20)   | NO   |     | NULL    |       |
| address1  | varchar(30)   | YES  |     | NULL    |       |
| address2  | varchar(30)   | YES  |     | NULL    |       |
| city      | varchar(15)   | YES  |     | NULL    |       |
| pincode   | int           | YES  |     | NULL    |       |
| state     | varchar(15)   | YES  |     | NULL    |       |
| bal_due   | decimal(10,2) | YES  |     | NULL    |       |
+-----------+---------------+------+-----+---------+-------+
8 rows in set (0.08 sec)
```

B) Create the table as describe below

Table name : product_master

```
mysql> desc product_master;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| product_no   | varchar(6)    | NO   | PRI | NULL    |       |
| desciption   | varchar(15)   | YES  |     | NULL    |       |
| profit_per   | decimal(10,2) | YES  |     | NULL    |       |
| unit_measure | varchar(10)   | YES  |     | NULL    |       |
| qty_on_hand  | varchar(8)    | YES  |     | NULL    |       |
| record_level | int           | YES  |     | NULL    |       |
| sell_price   | decimal(8,2)  | YES  |     | NULL    |       |
| cost_price   | decimal(8,2)  | YES  |     | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
8 rows in set (0.01 sec)
```

C) Create the table as describe below

Table name : salesman_master

```
mysql> desc salesman_master;
+--------------+--------------+------+-----+---------+-------+
| Field        | Type         | Null | Key | Default | Extra |
+--------------+--------------+------+-----+---------+-------+
| sales_no     | varchar(20)  | NO   | PRI | NULL    |       |
| salesman_name| varchar(20)  | YES  |     | NULL    |       |
| address1     | varchar(30)  | YES  |     | NULL    |       |
| address2     | varchar(30)  | YES  |     | NULL    |       |
| city         | varchar(20)  | YES  |     | NULL    |       |
| pincode      | int          | YES  |     | NULL    |       |
| state        | varchar(20)  | YES  |     | NULL    |       |
| sal_amt      | decimal(8,2) | YES  |     | NULL    |       |
| tgt_to_get   | decimal(6,2) | YES  |     | NULL    |       |
| ytd_sales    | decimal(6,2) | YES  |     | NULL    |       |
| remark       | varchar(60)  | YES  |     | NULL    |       |
+--------------+--------------+------+-----+---------+-------+
11 rows in set (0.02 sec)
```

2)

A) select * from client_master

```
mysql> select * from client_master;
+-----------+---------+-----------------+-----------------+------------+---------+-------------+----------+
| client_no | name    | address1        | address2        | city       | pincode | state       | bal_due  |
+-----------+---------+-----------------+-----------------+------------+---------+-------------+----------+
| C001      | vaibhao | panchshil zenda | palasgaon       | wardha     | 442101  | maharashtra |  1600.00 |
| C002      | sakshi  | javhar nagar    | petrol pump     | bhandar    | 442103  | maharashtra | 40000.00 |
| C003      | akshat  | baher           | malik house     | darbanga   | 442233  | bihar       | 40000.00 |
| C004      | kalyani | ram nagar       | ravi nagar      | nagpur     | 440004  | maharashtra | 26000.00 |
| C005      | saurabh | pahcashil zenda | nandpur         | aarvi      | 442109  | maharashtra |  1600.00 |
| C006      | bhumi   | children garden | aamgaon         | nagput     | 442004  | maharashtra | 20600.00 |
| C007      | abhi    | univercity campus | aurangabad    | nagpur     | 442462  | maharashtra | 20560.00 |
| C008      | vidanti | hudkeshwar      | sakkardhara     | nagpur     | 444561  | maharashtra | 20750.00 |
| C009      | vibhas  | civil line      | bhandara        | bhandara   | 448855  | maharashtra | 96550.00 |
| C010      | mahinaz | highanghat      | hinganghat      | hinghanghat| 478555  | maharashtra | 50050.00 |
+-----------+---------+-----------------+-----------------+------------+---------+-------------+----------+
10 rows in set (0.11 sec)
```

B) select * from product_master

```
mysql> select * from product_master;
+------------+-----------+------------+-------------+-------------+--------------+------------+------------+
| product_no | desciption| profit_per | unit_measure| qty_on_hand | record_level | sell_price | cost_price |
+------------+-----------+------------+-------------+-------------+--------------+------------+------------+
| P001       | tablets   |  95.00     | 50          | 80          |   30         |  600.00    |  300.00    |
| P002       | tablets   |  90.00     | 40          | 70          |   20         |  700.00    |  400.00    |
| P003       | syrup     | 100.00     | 30          | 75          |   27         |  400.00    |  500.00    |
| P004       | syrup     |  56.00     | 25          | 45          |   15         |  750.00    |  250.00    |
| P005       | tonic     |  77.00     | 22          | 44          |   55         |  755.00    |  285.00    |
| P006       | tonic     |  42.00     | 12          | 32          |   85         |  741.00    |  369.00    |
| P007       | syringe   |  88.00     | 63          | 68          |   41         |  852.00    |  456.00    |
| P008       | syringe   |  45.00     | 42          | 48          |   91         |  145.00    |  235.00    |
| P009       | cup       |  11.00     | 22          | 33          |   44         |  555.00    |  666.00    |
| P010       | cup       | 999.00     | 999         | 999         |  999         |  999.00    |  666.00    |
+------------+-----------+------------+-------------+-------------+--------------+------------+------------+
10 rows in set (0.01 sec)
```

C) Select * from salesman_master

```
mysql> select * from salesman_master;
+----------+---------------+-----------------+-------------+---------+---------+-------------+----------+-----------+-----------+--------+
| sales_no | salesman_name | address1        | address2    | city    | pincode | state       | sal_amt  | tgt_to_get| ytd_sales | remark |
+----------+---------------+-----------------+-------------+---------+---------+-------------+----------+-----------+-----------+--------+
| S001     | vaibhao       | panchashil zenda| palasgaon   | wardha  | 442101  | maharashtra | 50000.00 |   30.00   |   90.00   | passed |
| S002     | sakshi        | javhar nagar    | petrol pump | bhandara| 436655  | maharashtra | 40000.00 |   90.00   |   30.00   | passed |
| S003     | saurabh       | pachashil zenda | nandpur     | aarvi   | 443362  | maharashtra | 30000.00 |   88.00   |   34.00   | passed |
| S004     | axat          | mallik house    | bahera      | darbanga| 436524  | bihar       | 20000.00 |   82.00   |   63.00   | passed |
| S005     | kalyane       | ram nagar       | ravi nagar  | nagpur  | 430003  | maharashtra | 10000.00 |   52.00   |   60.00   | passed |
| S006     | abhi          | univercity campus| futala lekh| nagpur  | 430010  | maharashtra |  5000.00 |   44.00   |   64.00   | failed |
| S007     | bhumi         | children garden | law square  | aamgaon | 430456  | maharashtra |   300.00 |   63.00   |   20.00   | failed |
| S008     | ganeshan      | civil line      | garden      | gondia  | 430123  | maharashtra |  3500.00 |   74.00   |   25.00   | failed |
| S009     | vedanti       | hudkeshwar      | sakkardhara | gondia  | 444226  | maharashtra |  7880.00 |   45.00   |   10.00   | passed |
| S010     | naresh        | ravi nagar      | futala lekh | nagpur  | 430002  | maharashtra |  6000.00 |  562.00   |   45.00   | passed |
+----------+---------------+-----------------+-------------+---------+---------+-------------+----------+-----------+-----------+--------+
10 rows in set (0.02 sec)
```

Read the question and write appropriate SQL statement as a answer

1) Exercise on retrieving record from the table
    a) Find the name of all the client
        select name from client_master;

```
mysql> select name from client_master;
+---------+
| name    |
+---------+
| vaibhao |
| sakshi  |
| akshat  |
| kalyani |
| saurabh |
| bhumi   |
| abhi    |
| vidanti |
| vibhas  |
| mahinaz |
+---------+
10 rows in set (0.10 sec)
```

b) Retrieve the entire content of the client_master table

select * from client_master;

```
mysql> select * from client_master;
+-----------+---------+------------------+---------------+------------+---------+-------------+----------+
| client_no | name    | address1         | address2      | city       | pincode | state       | bal_due  |
+-----------+---------+------------------+---------------+------------+---------+-------------+----------+
| C001      | vaibhao | panchshil zenda  | palasgaon     | wardha     | 442101  | maharashtra |  1600.00 |
| C002      | sakshi  | javhar nagar     | petrol pump   | bhandar    | 442103  | maharashtra | 40000.00 |
| C003      | akshat  | baher            | malik house   | darbanga   | 442233  | bihar       | 40000.00 |
| C004      | kalyani | ram nagar        | ravi nagar    | nagpur     | 440004  | maharashtra | 26000.00 |
| C005      | saurabh | pahcashil zenda  | nandpur       | aarvi      | 442109  | maharashtra |  1600.00 |
| C006      | bhumi   | children garden  | aamgaon       | nagput     | 442004  | maharashtra | 20600.00 |
| C007      | abhi    | univercity campus| aurangabad    | nagpur     | 442462  | maharashtra | 20560.00 |
| C008      | vidanti | hudkeshwar       | sakkardhara   | nagpur     | 444561  | maharashtra | 20750.00 |
| C009      | vibhas  | civil line       | bhandara      | bhandara   | 448855  | maharashtra | 96550.00 |
| C010      | mahinaz | highanghat       | hinganghat    | hinghanghat| 478555  | maharashtra | 50050.00 |
+-----------+---------+------------------+---------------+------------+---------+-------------+----------+
10 rows in set (0.01 sec)
```

c) Retrieve the list of names and the cities of all the client

select name,city from client_master;

```
mysql> select name,city from client_master;
+---------+------------+
| name    | city       |
+---------+------------+
| vaibhao | wardha     |
| sakshi  | bhandar    |
| akshat  | darbanga   |
| kalyani | nagpur     |
| saurabh | aarvi      |
| bhumi   | nagput     |
| abhi    | nagpur     |
| vidanti | nagpur     |
| vibhas  | bhandara   |
| mahinaz | hinghanghat|
+---------+------------+
10 rows in set (0.12 sec)
```

d) List the various product available from product_master

select * from product_master;

```
mysql> select * from product_master;
+------------+-----------+------------+--------------+-------------+--------------+------------+------------+
| product_no | desciption| profit_per | unit_measure | qty_on_hand | record_level | sell_price | cost_price |
+------------+-----------+------------+--------------+-------------+--------------+------------+------------+
| P001       | tablets   |     95.00  | 50           | 80          |     30       |    600.00  |    300.00  |
| P002       | tablets   |     90.00  | 40           | 70          |     20       |    700.00  |    400.00  |
| P003       | syrup     |    100.00  | 30           | 75          |     27       |    400.00  |    500.00  |
| P004       | syrup     |     56.00  | 25           | 45          |     15       |    750.00  |    250.00  |
| P005       | tonic     |     77.00  | 22           | 44          |     55       |    755.00  |    285.00  |
| P006       | tonic     |     42.00  | 12           | 32          |     85       |    741.00  |    369.00  |
| P007       | syringe   |     88.00  | 63           | 68          |     41       |    852.00  |    456.00  |
| P008       | syringe   |     45.00  | 42           | 48          |     91       |    145.00  |    235.00  |
| P009       | cup       |     11.00  | 22           | 33          |     44       |    555.00  |    666.00  |
| P010       | cup       |    999.00  | 999          | 999         |    999       |    999.00  |    666.00  |
+------------+-----------+------------+--------------+-------------+--------------+------------+------------+
10 rows in set (0.03 sec)
```

e) List all the client whose locate in Nagpur

select * from client_master where city='nagpur';

```
mysql> select * from client_master where city='nagpur';
+-----------+---------+------------------+-------------+--------+---------+-------------+----------+
| client_no | name    | address1         | address2    | city   | pincode | state       | bal_due  |
+-----------+---------+------------------+-------------+--------+---------+-------------+----------+
| C004      | kalyani | ram nagar        | ravi nagar  | nagpur | 440004  | maharashtra | 26000.00 |
| C006      | bhumi   | children garden  | aamgaon     | nagpur | 442004  | maharashtra | 20600.00 |
| C007      | abhi    | univercity campus| aurangabad  | nagpur | 442462  | maharashtra | 20560.00 |
| C008      | vidanti | hudkeshwar       | sakkardhara | nagpur | 444561  | maharashtra | 20750.00 |
+-----------+---------+------------------+-------------+--------+---------+-------------+----------+
4 rows in set (0.01 sec)
```

f) Find the name of the salesman who have the salary greater than RS.30000

select salesman_name , sal_amt from salesman_master where sal_amt > 30000;

```
mysql> select salesman_name , sal_amt from salesman_master where sal_amt > 30000;
+---------------+----------+
| salesman_name | sal_amt  |
+---------------+----------+
| vaibhao       | 50000.00 |
| sakshi        | 40000.00 |
+---------------+----------+
2 rows in set (0.00 sec)
```

2) Exercise on update record in a table
   a) Change the city of the name=bhumi to Nagpur
      update client_master set city='nagpur' where name='bhumi';

```
mysql> update client_master set city='nagpur' where name='bhumi';
Query OK, 1 row affected (0.10 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from client_master;
+-----------+---------+-----------------+------------+------------+---------+-------------+----------+
| client_no | name    | address1        | address2   | city       | pincode | state       | bal_due  |
+-----------+---------+-----------------+------------+------------+---------+-------------+----------+
| C001      | vaibhao | panchshil zenda | palasgaon  | wardha     | 442101  | maharashtra | 1600.00  |
| C002      | sakshi  | javhar nagar    | petrol pump| bhandar    | 442103  | maharashtra | 40000.00 |
| C003      | akshat  | baher           | malik house| darbanga   | 442233  | bihar       | 40000.00 |
| C004      | kalyani | ram nagar       | ravi nagar | nagpur     | 440004  | maharashtra | 26000.00 |
| C005      | saurabh | pahcashil zenda | nandpur    | aarvi      | 442109  | maharashtra | 1600.00  |
| C006      | bhumi   | children garden | aamgaon    | nagpur     | 442004  | maharashtra | 20600.00 |
| C007      | abhi    | univercity campus| aurangabad| nagpur     | 442462  | maharashtra | 20560.00 |
| C008      | vidanti | hudkeshwar      | sakkardhara| nagpur     | 444561  | maharashtra | 20750.00 |
| C009      | vibhas  | civil line      | bhandara   | bhandara   | 448855  | maharashtra | 96550.00 |
| C010      | mahinaz | highanghat      | hinganghat | hinghanghat| 478555  | maharashtra | 50050.00 |
+-----------+---------+-----------------+------------+------------+---------+-------------+----------+
10 rows in set (0.01 sec)
```

   b) Change the bal_due of client no_C005 to RS10000
      update client_master set bal_due=10000 where client_no='C005';

```
mysql> update client_master set bal_due=10000 where client_no='C005';
Query OK, 1 row affected (0.07 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> select * from client_master;
+-----------+---------+-----------------+------------+------------+---------+-------------+----------+
| client_no | name    | address1        | address2   | city       | pincode | state       | bal_due  |
+-----------+---------+-----------------+------------+------------+---------+-------------+----------+
| C001      | vaibhao | panchshil zenda | palasgaon  | wardha     | 442101  | maharashtra | 1600.00  |
| C002      | sakshi  | javhar nagar    | petrol pump| bhandar    | 442103  | maharashtra | 40000.00 |
| C003      | akshat  | baher           | malik house| darbanga   | 442233  | bihar       | 40000.00 |
| C004      | kalyani | ram nagar       | ravi nagar | nagpur     | 440004  | maharashtra | 26000.00 |
| C005      | saurabh | pahcashil zenda | nandpur    | aarvi      | 442109  | maharashtra | 10000.00 |
| C006      | bhumi   | children garden | aamgaon    | nagpur     | 442004  | maharashtra | 20600.00 |
| C007      | abhi    | univercity campus| aurangabad| nagpur     | 442462  | maharashtra | 20560.00 |
| C008      | vidanti | hudkeshwar      | sakkardhara| nagpur     | 444561  | maharashtra | 20750.00 |
| C009      | vibhas  | civil line      | bhandara   | bhandara   | 448855  | maharashtra | 96550.00 |
| C010      | mahinaz | highanghat      | hinganghat | hinghanghat| 478555  | maharashtra | 50050.00 |
+-----------+---------+-----------------+------------+------------+---------+-------------+----------+
10 rows in set (0.01 sec)
```

   c) Change the cost_price of tablet to RS 2000
      update product_master set cost_price='2000' where desciption='tablets';

```
mysql> update product_master set cost_price='2000' where desciption='tablets';
Query OK, 2 rows affected (0.04 sec)
Rows matched: 2  Changed: 2  Warnings: 0

mysql> select * from product_master;
+------------+------------+------------+--------------+-------------+--------------+------------+------------+
| product_no | desciption | profit_per | unit_measure | qty_on_hand | record_level | sell_price | cost_price |
+------------+------------+------------+--------------+-------------+--------------+------------+------------+
| P001       | tablets    | 95.00      | 50           | 80          |              | 30         | 600.00     | 2000.00    |
| P002       | tablets    | 90.00      | 40           | 70          |              | 20         | 700.00     | 2000.00    |
| P003       | syrup      | 100.00     | 30           | 75          |              | 27         | 400.00     | 500.00     |
| P004       | syrup      | 56.00      | 25           | 45          |              | 15         | 750.00     | 250.00     |
| P005       | tonic      | 77.00      | 22           | 44          |              | 55         | 755.00     | 285.00     |
| P006       | tonic      | 42.00      | 12           | 32          |              | 85         | 741.00     | 369.00     |
| P007       | syringe    | 88.00      | 63           | 68          |              | 41         | 852.00     | 456.00     |
| P008       | syringe    | 45.00      | 42           | 48          |              | 91         | 145.00     | 235.00     |
| P009       | cup        | 11.00      | 22           | 33          |              | 44         | 555.00     | 666.00     |
| P010       | cup        | 999.00     | 999          | 999         |              | 999        | 999.00     | 666.00     |
+------------+------------+------------+--------------+-------------+--------------+------------+------------+
10 rows in set (0.00 sec)
```

   d) Change the city of the salesman to Nagpur salesman_no =S009
      update salesman_master set city='nagpur' where sales_no='S009';

```
mysql> update salesman_master set city = 'nagpur' where sales_no = 'S009';
Query OK, 0 rows affected (0.01 sec)
Rows matched: 1  Changed: 0  Warnings: 0

mysql> select * from salesman_master;
+----------+---------------+-----------------+-------------+----------+---------+-------------+----------+-----------+-----------+--------+
| sales_no | salesman_name | address1        | address2    | city     | pincode | state       | sal_amt  | tgt_to_get| ytd_sales | remark |
+----------+---------------+-----------------+-------------+----------+---------+-------------+----------+-----------+-----------+--------+
| S001     | vaibhao       | panchashil zenda| palasgaon   | wardha   | 442101  | maharashtra | 50000.00 | 30.00     | 90.00     | passed |
| S002     | sakshi        | javhar nagar    | petrol pump | bhandara | 436655  | maharashtra | 40000.00 | 90.00     | 30.00     | passed |
| S003     | saurabh       | pachashil zenda | nandpur     | aarvi    | 443362  | maharashtra | 30000.00 | 88.00     | 34.00     | passed |
| S004     | axat          | mallik house    | bahera      | darbanga | 436524  | bihar       | 20000.00 | 82.00     | 63.00     | passed |
| S005     | kalyane       | ram nagar       | ravi nagar  | nagpur   | 430003  | maharashtra | 10000.00 | 52.00     | 60.00     | passed |
| S006     | abhi          | univercity campus| futala lekh| nagpur   | 430010  | maharashtra | 5000.00  | 44.00     | 64.00     | failed |
| S007     | bhumi         | children garden | law square  | aamgaon  | 430456  | maharashtra | 300.00   | 63.00     | 20.00     | failed |
| S008     | ganeshan      | civil line      | garden      | gondia   | 430123  | maharashtra | 3500.00  | 74.00     | 25.00     | failed |
| S009     | vedanti       | hudkeshwar      | sakkardhara | nagpur   | 444226  | maharashtra | 7880.00  | 45.00     | 10.00     | passed |
| S010     | naresh        | ravi nagar      | futala lekh | nagpur   | 430082  | maharashtra | 6000.00  | 562.00    | 45.00     | passed |
+----------+---------------+-----------------+-------------+----------+---------+-------------+----------+-----------+-----------+--------+
10 rows in set (0.00 sec)
```
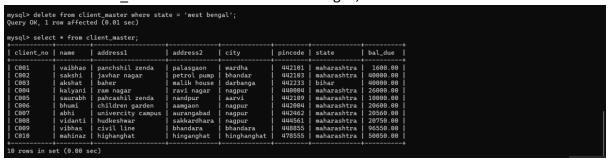
3) Exercise on deleting records in a table
   a) Delete all the salesman from salesman_master whose salary are equal to RS6000
      delete from salesman_master where sal_amt=6000;

```
mysql> delete from salesman_master where sal_amt=6000;
Query OK, 1 row affected (0.14 sec)

mysql> select * from salesman_master;
+----------+---------------+------------------+--------------+----------+---------+-------------+-----------+------------+-----------+--------+
| sales_no | salesman_name | address1         | address2     | city     | pincode | state       | sal_amt   | tgt_to_get | ytd_sales | remark |
+----------+---------------+------------------+--------------+----------+---------+-------------+-----------+------------+-----------+--------+
| S001     | vaibhao       | panchashil zenda | palasgaon    | wardha   | 442101  | maharashtra | 50000.00  | 30.00      | 90.00     | passed |
| S002     | sakshi        | javhar nagar     | petrol pump  | bhandara | 436655  | maharashtra | 40000.00  | 90.00      | 30.00     | passed |
| S003     | saurabh       | pachashil zenda  | nandpur      | aarvi    | 443362  | maharashtra | 30000.00  | 88.00      | 34.00     | passed |
| S004     | axat          | mallik house     | bahera       | darbanga | 436524  | bihar       | 20000.00  | 82.00      | 63.00     | passed |
| S005     | kalyane       | ram nagar        | ravi nagar   | nagpur   | 430003  | maharashtra | 10000.00  | 52.00      | 60.00     | passed |
| S006     | abhi          | univercity campus| futala lekh  | nagpur   | 430010  | maharashtra | 5000.00   | 44.00      | 64.00     | failed |
| S007     | bhumi         | children garden  | law square   | aamgaon  | 430456  | maharashtra | 300.00    | 63.00      | 20.00     | failed |
| S008     | ganeshan      | civil line       | garden       | gondia   | 430123  | maharashtra | 3500.00   | 74.00      | 25.00     | failed |
| S009     | vedanti       | hudkeshwar       | sakkardhara  | nagpur   | 444226  | maharashtra | 7880.00   | 45.00      | 10.00     | passed |
+----------+---------------+------------------+--------------+----------+---------+-------------+-----------+------------+-----------+--------+
9 rows in set (0.02 sec)
```

   b) Delete all the product from the product_master where the quantity on hand is equal to 100
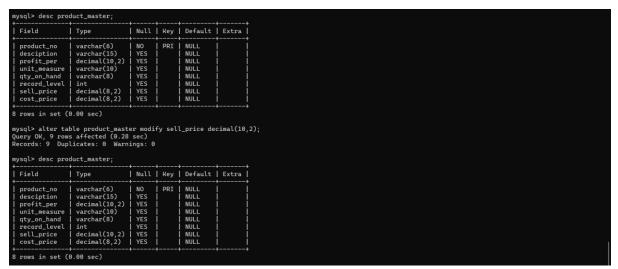   delete from product_master where qty_on_hand = '999';

```
mysql> delete from product_master where qty_on_hand = '999';
Query OK, 1 row affected (0.04 sec)

mysql> select * from product_master;
+------------+-----------+------------+--------------+-------------+--------------+------------+------------+
| product_no | desciption | profit_per | unit_measure | qty_on_hand | record_level | sell_price | cost_price |
+------------+-----------+------------+--------------+-------------+--------------+------------+------------+
| P001       | tablets   | 95.00      | 50           | 80          | 30           | 600.00     | 2000.00    |
| P002       | tablets   | 90.00      | 40           | 70          | 20           | 700.00     | 2000.00    |
| P003       | syrup     | 100.00     | 30           | 75          | 27           | 400.00     | 500.00     |
| P004       | syrup     | 56.00      | 25           | 45          | 15           | 750.00     | 250.00     |
| P005       | tonic     | 77.00      | 22           | 44          | 55           | 755.00     | 285.00     |
| P006       | tonic     | 42.00      | 12           | 32          | 85           | 741.00     | 369.00     |
| P007       | syringe   | 88.00      | 63           | 68          | 41           | 852.00     | 456.00     |
| P008       | syringe   | 45.00      | 42           | 48          | 91           | 145.00     | 235.00     |
| P009       | cup       | 11.00      | 22           | 33          | 44           | 555.00     | 666.00     |
+------------+-----------+------------+--------------+-------------+--------------+------------+------------+
9 rows in set (0.00 sec)
```

   c) Delete all the client where state is west Bengal
      delete from client_master where state = 'west bengal';

```
mysql> delete from client_master where state = 'west bengal';
Query OK, 1 row affected (0.01 sec)

mysql> select * from client_master;
+-----------+---------+------------------+--------------+------------+---------+-------------+----------+
| client_no | name    | address1         | address2     | city       | pincode | state       | bal_due  |
+-----------+---------+------------------+--------------+------------+---------+-------------+----------+
| C001      | vaibhao | panchshil zenda  | palasgaon    | wardha     | 442101  | maharashtra | 1600.00  |
| C002      | sakshi  | javhar nagar     | petrol pump  | bhandar    | 442103  | maharashtra | 40000.00 |
| C003      | akshat  | baher            | malik house  | darbanga   | 442233  | bihar       | 40000.00 |
| C004      | kalyani | ram nagar        | ravi nagar   | nagpur     | 440004  | maharashtra | 26000.00 |
| C005      | saurabh | pahcashil zenda  | nandpur      | aarvi      | 442109  | maharashtra | 10000.00 |
| C006      | bhumi   | children garden  | aamgaon      | nagpur     | 442004  | maharashtra | 20600.00 |
| C007      | abhi    | univercity campus| aurangabad   | nagpur     | 442462  | maharashtra | 20560.00 |
| C008      | vidanti | hudkeshwar       | sakkardhara  | nagpur     | 444561  | maharashtra | 20750.00 |
| C009      | vibhas  | civil line       | bhandara     | bhandara   | 448855  | maharashtra | 96550.00 |
| C010      | mahinaz | highanghat       | hinganghat   | hinghanghat| 478555  | maharashtra | 50050.00 |
+-----------+---------+------------------+--------------+------------+---------+-------------+----------+
10 rows in set (0.00 sec)
```

4) Exercise on altering the table structure
   a) Add the column telephone of data type int and size=10
      alter table client_master add telephone int(10);

```
mysql> desc client_master;
+-----------+---------------+------+-----+---------+-------+
| Field     | Type          | Null | Key | Default | Extra |
+-----------+---------------+------+-----+---------+-------+
| client_no | varchar(6)    | NO   | PRI | NULL    |       |
| name      | varchar(20)   | NO   |     | NULL    |       |
| address1  | varchar(30)   | YES  |     | NULL    |       |
| address2  | varchar(30)   | YES  |     | NULL    |       |
| city      | varchar(15)   | YES  |     | NULL    |       |
| pincode   | int           | YES  |     | NULL    |       |
| state     | varchar(15)   | YES  |     | NULL    |       |
| bal_due   | decimal(10,2) | YES  |     | NULL    |       |
| telephone | int           | YES  |     | NULL    |       |
+-----------+---------------+------+-----+---------+-------+
9 rows in set (0.00 sec)
```

   b) Change all size of sell_price column in product_master to 10,2
      alter table product_master modify sell_price decimal(10,2);

```
mysql> desc product_master;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| product_no   | varchar(6)    | NO   | PRI | NULL    |       |
| desciption   | varchar(15)   | YES  |     | NULL    |       |
| profit_per   | decimal(10,2) | YES  |     | NULL    |       |
| unit_measure | varchar(10)   | YES  |     | NULL    |       |
| qty_on_hand  | varchar(8)    | YES  |     | NULL    |       |
| record_level | int           | YES  |     | NULL    |       |
| sell_price   | decimal(8,2)  | YES  |     | NULL    |       |
| cost_price   | decimal(8,2)  | YES  |     | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
8 rows in set (0.00 sec)

mysql> alter table product_master modify sell_price decimal(10,2);
Query OK, 9 rows affected (0.28 sec)
Records: 9  Duplicates: 0  Warnings: 0

mysql> desc product_master;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| product_no   | varchar(6)    | NO   | PRI | NULL    |       |
| desciption   | varchar(15)   | YES  |     | NULL    |       |
| profit_per   | decimal(10,2) | YES  |     | NULL    |       |
| unit_measure | varchar(10)   | YES  |     | NULL    |       |
| qty_on_hand  | varchar(8)    | YES  |     | NULL    |       |
| record_level | int           | YES  |     | NULL    |       |
| sell_price   | decimal(10,2) | YES  |     | NULL    |       |
| cost_price   | decimal(8,2)  | YES  |     | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
8 rows in set (0.00 sec)
```

5) Destroy the table client_master long with its data
   drop table client_master;

```
mysql> drop table client_master;
Query OK, 0 rows affected (0.02 sec)

mysql> desc client_master;
ERROR 1146 (42S02): Table 'vaibhao.client_master' doesn't exist
mysql>
```

B)
2) Exercise on retrieving from a table after computing table data

a) Retrieve the contents of the column product_no,descriptiom and compute 10% of values
content in the column sell_price and 110% of values contents in the column sell_price for
each row from the table product master.
select product_no,sell_price*0.10 new_price from product_master;

```
mysql> select product_no,sell_price*0.10 new_price from product_master;
+------------+-----------+
| product_no | new_price |
+------------+-----------+
| P001       |   60.0000 |
| P002       |   70.0000 |
| P003       |   40.0000 |
| P004       |   75.0000 |
| P005       |   75.5000 |
| P006       |   74.1000 |
| P007       |   85.2000 |
| P008       |   14.5000 |
| P009       |   55.5000 |
+------------+-----------+
9 rows in set (0.00 sec)
```

b) Execute the above command by just renaming the column name as increase price and
    new price respectively.
    Select product_no,sell_price*0.10,sell_price*1.10 new_price from product_master

```
mysql> select product_no,sell_price*0.10,sell_price*1.10 new_price from product_master;
+------------+-----------------+-----------+
| product_no | sell_price*0.10 | new_price |
+------------+-----------------+-----------+
| P001       |         60.0000 |  660.0000 |
| P002       |         70.0000 |  770.0000 |
| P003       |         40.0000 |  440.0000 |
| P004       |         75.0000 |  825.0000 |
| P005       |         75.5000 |  830.5000 |
| P006       |         74.1000 |  815.1000 |
| P007       |         85.2000 |  937.2000 |
| P008       |         14.5000 |  159.5000 |
| P009       |         55.5000 |  610.5000 |
+------------+-----------------+-----------+
9 rows in set (0.02 sec)
```

c) c) Retrieve the contents of the column product_no description profit_per,sell_price from the table product_master where the values contain in the field profit_per is between 25 and 56 both inclusive

select product_no,sell_price,profit_per from product_master where profit_per>=25 and profit_per<=56

```
mysql> select product_no,sell_price,profit_per from product_master where profit_per>=25 and profit_per<=56;
+------------+------------+------------+
| product_no | sell_price | profit_per |
+------------+------------+------------+
| P004       |     750.00 |      56.00 |
| P006       |     741.00 |      42.00 |
| P008       |     145.00 |      45.00 |
+------------+------------+------------+
3 rows in set (0.10 sec)
```

d) d) Retrieve the contents of the column product_no,description profit_per,sell_price from the table product_master where the values contained in the field profit_per is between 25 and 56 inclusive

select product_no,sell_price,profit_per from product_master where profit_per between 25 and 56;

```
mysql> select product_no,sell_price,profit_per from product_master where profit_per between 25 and 56;
+------------+------------+------------+
| product_no | sell_price | profit_per |
+------------+------------+------------+
| P004       |     750.00 |      56.00 |
| P006       |     741.00 |      42.00 |
| P008       |     145.00 |      45.00 |
+------------+------------+------------+
3 rows in set (0.09 sec)
```

e) e) Retrieve the contents of the column product_no desctiption profit_per,sell_price from the table product_master where the values contained in the field profit_per is not between 25 and 56

select product_no,sell_price,profit_per from product_master where profit_per not between 25 and 56;

```
mysql> select product_no,sell_price,profit_per from product_master where profit_per not between 25 and 56;
+------------+------------+------------+
| product_no | sell_price | profit_per |
+------------+------------+------------+
| P001       |     600.00 |      95.00 |
| P002       |     700.00 |      90.00 |
| P003       |     400.00 |     100.00 |
| P005       |     755.00 |      77.00 |
| P007       |     852.00 |      88.00 |
| P009       |     555.00 |      11.00 |
+------------+------------+------------+
6 rows in set (0.01 sec)
```

f) Retrieve the client information from the table client_master where the pin code values contain 442101 or 447788

Select * from client_master where pincode=442101 or pincode=442103;

```
mysql> Select * from client_master where pincode=442101 or pincode=442103;
+-----------+--------+----------------+-------------+---------+---------+-------------+----------+-----------+
| client_no | name   | address1       | address2    | city    | pincode | state       | bal_due  | telephone |
+-----------+--------+----------------+-------------+---------+---------+-------------+----------+-----------+
| C001      | vaibhao| panchshil zenda| palasgaon   | wardha  | 442101  | maharashtra |  1600.00 |      NULL |
| C002      | sakshi | javhar nagar   | petrol pump | bhandar | 442103  | maharashtra | 40000.00 |      NULL |
+-----------+--------+----------------+-------------+---------+---------+-------------+----------+-----------+
2 rows in set (0.01 sec)
```

g) Retrieve the client information from the table client_master where the client those who are not in 'nagpur' or 'bombay'

Select * from client_master where not(city='nagpur' OR city='bombay');

```
mysql> select * from client_master where not(city='nagpur' OR city='bombay');
+-----------+---------+----------------+-------------+-----------+---------+-------------+----------+-----------+
| client_no | name    | address1       | address2    | city      | pincode | state       | bal_due  | telephone |
+-----------+---------+----------------+-------------+-----------+---------+-------------+----------+-----------+
| C001      | vaibhao | panchshil zenda| palasgaon   | wardha    | 442101  | maharashtra |  1600.00 |      NULL |
| C002      | sakshi  | javhar nagar   | petrol pump | bhandar   | 442103  | maharashtra | 40000.00 |      NULL |
| C003      | akshat  | baher          | malik house | darbanga  | 442233  | bihar       | 40000.00 |      NULL |
| C005      | saurabh | pahcashil zenda| nandpur     | aarvi     | 442109  | maharashtra | 10000.00 |      NULL |
| C009      | vibhas  | civil line     | bhandara    | bhandara  | 448855  | maharashtra | 96550.00 |      NULL |
| C010      | mahinaz | highanghat     | hinganghat  | hinghanghat| 478555 | maharashtra | 50050.00 |      NULL |
+-----------+---------+----------------+-------------+-----------+---------+-------------+----------+-----------+
6 rows in set (0.10 sec)
```

h) Retrieve the information of supplier whose name is being with the letter 'ka' from
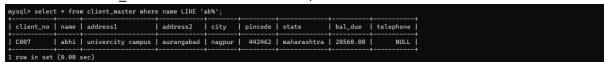client_master
select * from client_master where name LIKE 'ka%;

```
mysql> select * from client_master where name LIKE 'ka%';
+-----------+---------+-----------+-----------+--------+---------+------------+----------+-----------+
| client_no | name    | address1  | address2  | city   | pincode | state      | bal_due  | telephone |
+-----------+---------+-----------+-----------+--------+---------+------------+----------+-----------+
| C004      | kalyani | ram nagar | ravi nagar| nagpur | 440004  | maharashtra| 26000.00 |      NULL |
+-----------+---------+-----------+-----------+--------+---------+------------+----------+-----------+
1 row in set (0.04 sec)
```

i) Retrieve the information of supplier whose name is where the second character of name
are either 'a' or 'h' from the table supplier
select * from client_master where name LIKE '_h%';

```
mysql> select * from client_master where name LIKE '_h%';
+-----------+-------+-----------------+----------+--------+---------+------------+----------+-----------+
| client_no | name  | address1        | address2 | city   | pincode | state      | bal_due  | telephone |
+-----------+-------+-----------------+----------+--------+---------+------------+----------+-----------+
| C006      | bhumi | children garden | aamgaon  | nagpur | 442004  | maharashtra| 20600.00 |      NULL |
+-----------+-------+-----------------+----------+--------+---------+------------+----------+-----------+
1 row in set (0.00 sec)
```

j) Retrieve the information of supplier whose name is begins with the letter 'ab' and
length of name should be 3 char long from the table supplier master
select * from client_master where name LIKE 'ab%';

```
mysql> select * from client_master where name LIKE 'ab%';
+-----------+------+------------------+-----------+--------+---------+------------+----------+-----------+
| client_no | name | address1         | address2  | city   | pincode | state      | bal_due  | telephone |
+-----------+------+------------------+-----------+--------+---------+------------+----------+-----------+
| C007      | abhi | univercity campus| aurangabad| nagpur | 442462  | maharashtra| 20560.00 |      NULL |
+-----------+------+------------------+-----------+--------+---------+------------+----------+-----------+
1 row in set (0.00 sec)
```

k) Retrieve the information of supplier where the supplier name is either
'vaibhao','sakshi','kalyani'
select * from client_master where name IN('vaibhao','sakshi','kalyani');

```
mysql> select * from client_master where name IN('vaibhao','sakshi','kalyani');
+-----------+---------+-----------------+-------------+--------+---------+------------+----------+-----------+
| client_no | name    | address1        | address2    | city   | pincode | state      | bal_due  | telephone |
+-----------+---------+-----------------+-------------+--------+---------+------------+----------+-----------+
| C001      | vaibhao | panchshil zenda | palasgaon   | wardha | 442101  | maharashtra|  1600.00 |      NULL |
| C002      | sakshi  | javhar nagar    | petrol pump | bhandar| 442103  | maharashtra| 40000.00 |      NULL |
| C004      | kalyani | ram nagar       | ravi nagar  | nagpur | 440004  | maharashtra| 26000.00 |      NULL |
+-----------+---------+-----------------+-------------+--------+---------+------------+----------+-----------+
3 rows in set (0.01 sec)
```

l) Retrieve the information of supplier where supplier name are other than
'vaibhao','sakshi,'kalyani'
select * from client_master where name NOT IN('vaibhao','sakshi','kalyani');

```
mysql> select * from client_master where name NOT IN('vaibhao','sakshi','kalyani');
+-----------+---------+-----------------+------------+-----------+---------+------------+----------+-----------+
| client_no | name    | address1        | address2   | city      | pincode | state      | bal_due  | telephone |
+-----------+---------+-----------------+------------+-----------+---------+------------+----------+-----------+
| C003      | akshat  | baher           | malik house| darbanga  | 442233  | bihar      | 40000.00 |      NULL |
| C005      | saurabh | pahcashil zenda | nandpur    | aarvi     | 442109  | maharashtra| 10000.00 |      NULL |
| C006      | bhumi   | children garden | aamgaon    | nagpur    | 442004  | maharashtra| 20600.00 |      NULL |
| C007      | abhi    | univercity campus| aurangabad| nagpur    | 442462  | maharashtra| 20560.00 |      NULL |
| C008      | vidanti | hudkeshwar      | sakkardhara| nagpur    | 444561  | maharashtra| 20750.00 |      NULL |
| C009      | vibhas  | civil line      | bhandara   | bhandara  | 448855  | maharashtra| 96550.00 |      NULL |
| C010      | mahinaz | highanghat      | hinganghat | hinghanghat| 478555 | maharashtra| 50050.00 |      NULL |
+-----------+---------+-----------------+------------+-----------+---------+------------+----------+-----------+
7 rows in set (0.09 sec)
```

C)

1) Retrieve the product number and quality order for each quantity order for each product
from sales_order_details table

a) Sales_order_details

i) order number

select order_no from sales_order_details;

```
mysql> select order_no from sales_order_details;
+----------+
| order_no |
+----------+
| 019001   |
| 019001   |
| 019001   |
| 019002   |
| 019003   |
| 019003   |
| 019008   |
| 019008   |
| 046865   |
| 046865   |
| 046865   |
| 046865   |
| 046866   |
| 046866   |
+----------+
14 rows in set (0.03 sec)
```

ii) product_no

select product_no from sales_order_details;

```
mysql> select product_no from sales_order_details;
+------------+
| product_no |
+------------+
| P00001     |
| P00001     |
| P00001     |
| P00001     |
| P03453     |
| P03453     |
| P06734     |
| P07868     |
| P07885     |
| P07885     |
| P07965     |
| P07965     |
| P07975     |
| P07975     |
+------------+
14 rows in set (0.10 sec)
```

iii) qty_ordered

select qty_ordered from sales_order_details;

```
mysql> select qty_ordered from sales_order_details;
+-------------+
| qty_ordered |
+-------------+
|           4 |
|           2 |
|           2 |
|          10 |
|           3 |
|           3 |
|          10 |
|           4 |
|           2 |
|           1 |
|           1 |
|           1 |
|          10 |
|           5 |
+-------------+
14 rows in set (0.00 sec)
```

iv) qty_disp

select qty_disp from sales_order_details;

```
mysql> select qty_disp from sales_order_details;
+----------+
| qty_disp |
+----------+
|        4 |
|        1 |
|        1 |
|        0 |
|        3 |
|        1 |
|       10 |
|        4 |
|        2 |
|        1 |
|        0 |
|        0 |
|        5 |
|        3 |
+----------+
14 rows in set (0.06 sec)
```

4) retrieve the product number and quantity ordered for product 'P00001' from sales_order_details

select product_no,qty_ordered from sales_order_details where product_no='P00001' ;

```
mysql> select product_no,qty_ordered from sales_order_details where product_no='P00001' ;
+------------+-------------+
| product_no | qty_ordered |
+------------+-------------+
| P00001     |           4 |
| P00001     |          10 |
| P00001     |          10 |
| P00001     |          10 |
+------------+-------------+
4 rows in set (0.04 sec)
```

5) add the pk constrain on the coloum supply_no belong to the order_no

alter table sales_order_details add primary key (order_no)

```
mysql> desc sales_order_details;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| order_no     | varchar(6)    | YES  | MUL | NULL    |       |
| product_no   | varchar(6)    | YES  | MUL | NULL    |       |
| qty_ordered  | int           | YES  |     | NULL    |       |
| qty_disp     | int           | YES  |     | NULL    |       |
| product_rate | decimal(10,2) | YES  |     | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
5 rows in set (0.14 sec)
```

6) add fk constrain on the column order_no belong to the sales_order_details which reference the table sales_order.modify qty_ordered to include not null constrain

Alter table sales_order_details add constrain order_fkey foreign key(order_no) references sales_order modify (qty_ordered number(8) not null)

```
mysql> desc sales_order_details;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| order_no     | varchar(6)    | YES  | MUL | NULL    |       |
| product_no   | varchar(6)    | YES  | MUL | NULL    |       |
| qty_ordered  | int           | YES  |     | NULL    |       |
| qty_disp     | int           | YES  |     | NULL    |       |
| product_rate | decimal(10,2) | YES  |     | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
5 rows in set (0.14 sec)
```