Database

Day 1 || 14 july 2022

Getting started with MySql

Clg Management System

**Entities** : department , courses, faculty ,student , Examination

**Attributes :**

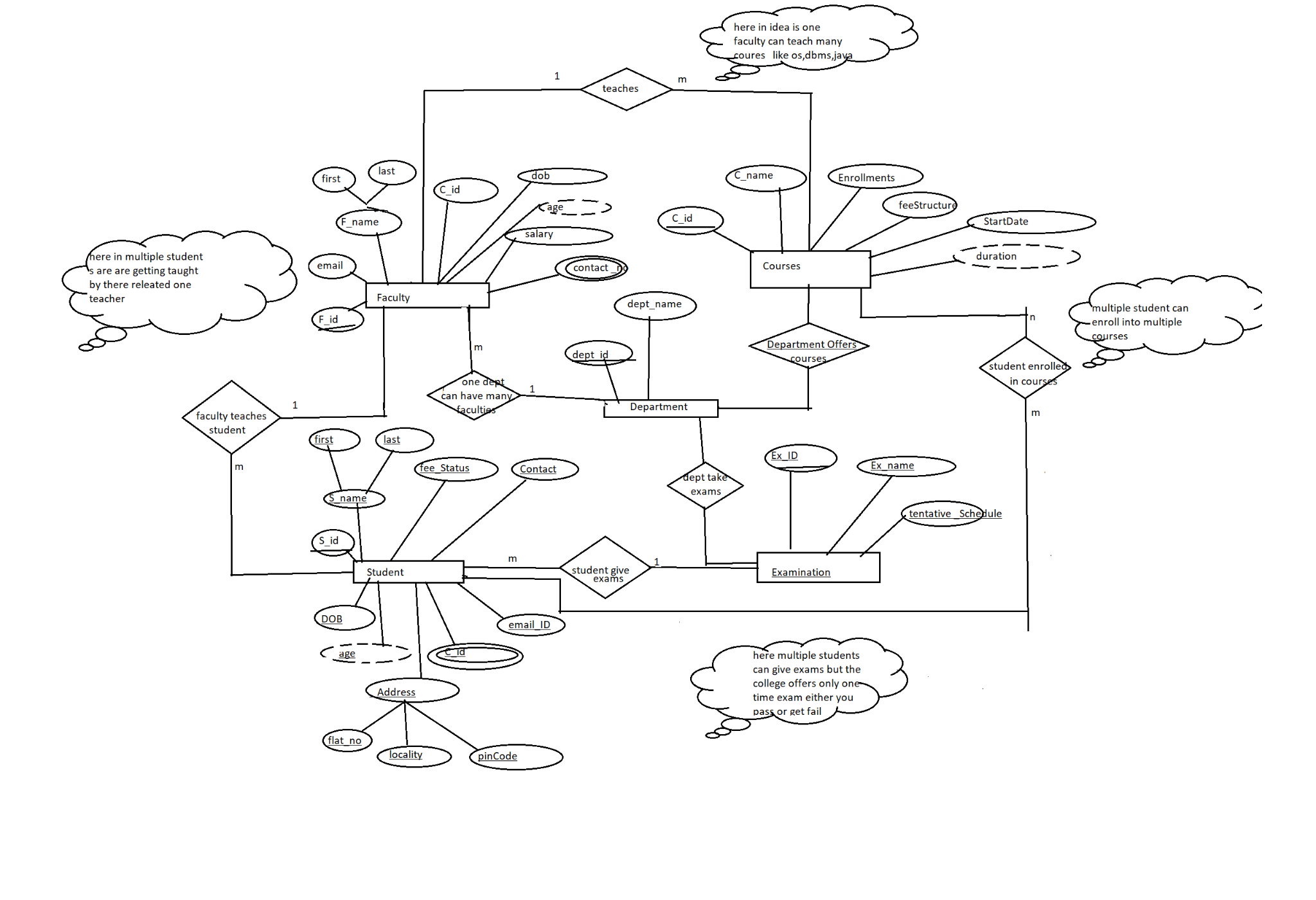
* **Department** : dept\_Id,dept\_name ,
* **Courses :** C\_Id, C\_name, enrollments,fee, duration,start\_date
* **Faculty :** F\_id,F\_name,C\_id, age ,dob, salary ,contact\_no ,email\_id
* **Student :** S\_id,S\_name,P\_name,p\_contact,age ,dob,contact\_no,email\_id,C\_id,fee\_Status ,address
* **Examination :** Ex\_id,Ex\_name , tentative\_schedule

Yellow is for multi valued Attributes

Green is for derived Attributes

Orange is for composite Attributes

underLine is for Primary key



**MYSQL commands for todays assignment 1**

Enter password: \*\*\*\*\*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 12

Server version: 8.0.29 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> desc table;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near '' at line 1

mysql> desc student;

ERROR 1046 (3D000): No database selected

mysql> use sampledb;

Database changed

mysql> desc student;

+----------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+----------+-------------+------+-----+---------+-------+

| roll\_no | int | YES | | NULL | |

| name | varchar(20) | YES | | NULL | |

| division | varchar(10) | YES | | NULL | |

| branch | varchar(10) | YES | | NULL | |

| city | varchar(10) | YES | | NULL | |

| marks | int | YES | | NULL | |

+----------+-------------+------+-----+---------+-------+

6 rows in set (0.00 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(101,"baniya","first","CS","jhashi",95);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(105,"negi","first","CS","kanpur",90);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(108,"Yadav","first","CS","Azamgarh",91);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(119,"Devansh","first","CS","kanpur",95);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(109,"Tarun","second","IT","gorakhpur",60);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(132,"Aquib","first","CS","Kanpur",99);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(128,"shiva","second","IT","Agra",85);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(130,"Manish","fail","CS","Deoria",00);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(104,"Akki","first","CS","Kanpur",100);

Query OK, 1 row affected (0.01 sec)

mysql> insert into student(roll\_no,name,division,branch,city,marks) values(113,"Ashi","first","CS","Delhi",97);

Query OK, 1 row affected (0.01 sec)

mysql> select \* from student;

+---------+---------+----------+--------+-----------+-------+

| roll\_no | name | division | branch | city | marks |

+---------+---------+----------+--------+-----------+-------+

| 101 | baniya | first | CS | jhashi | 95 |

| 105 | negi | first | CS | kanpur | 90 |

| 108 | Yadav | first | CS | Azamgarh | 91 |

| 119 | Devansh | first | CS | kanpur | 95 |

| 109 | Tarun | second | IT | gorakhpur | 60 |

| 132 | Aquib | first | CS | Kanpur | 99 |

| 128 | shiva | second | IT | Agra | 85 |

| 130 | Manish | fail | CS | Deoria | 0 |

| 104 | Akki | first | CS | Kanpur | 100 |

| 113 | Ashi | first | CS | Delhi | 97 |

+---------+---------+----------+--------+-----------+-------+

10 rows in set (0.00 sec)

mysql> select name ,city from student;

+---------+-----------+

| name | city |

+---------+-----------+

| baniya | jhashi |

| negi | kanpur |

| Yadav | Azamgarh |

| Devansh | kanpur |

| Tarun | gorakhpur |

| Aquib | Kanpur |

| shiva | Agra |

| Manish | Deoria |

| Akki | Kanpur |

| Ashi | Delhi |

+---------+-----------+

10 rows in set (0.00 sec)

mysql> select distict city from student;

ERROR 1054 (42S22): Unknown column 'distict' in 'field list'

mysql> select distinct city from student;

+-----------+

| city |

+-----------+

| jhashi |

| kanpur |

| Azamgarh |

| gorakhpur |

| Agra |

| Deoria |

| Delhi |

+-----------+

7 rows in set (0.00 sec)

mysql> select \* from student;

+---------+---------+----------+--------+-----------+-------+

| roll\_no | name | division | branch | city | marks |

+---------+---------+----------+--------+-----------+-------+

| 101 | baniya | first | CS | jhashi | 95 |

| 105 | negi | first | CS | kanpur | 90 |

| 108 | Yadav | first | CS | Azamgarh | 91 |

| 119 | Devansh | first | CS | kanpur | 95 |

| 109 | Tarun | second | IT | gorakhpur | 60 |

| 132 | Aquib | first | CS | Kanpur | 99 |

| 128 | shiva | second | IT | Agra | 85 |

| 130 | Manish | fail | CS | Deoria | 0 |

| 104 | Akki | first | CS | Kanpur | 100 |

| 113 | Ashi | first | CS | Delhi | 97 |

+---------+---------+----------+--------+-----------+-------+

10 rows in set (0.00 sec)

mysql> select \* from student where marks > 75;

+---------+---------+----------+--------+----------+-------+

| roll\_no | name | division | branch | city | marks |

+---------+---------+----------+--------+----------+-------+

| 101 | baniya | first | CS | jhashi | 95 |

| 105 | negi | first | CS | kanpur | 90 |

| 108 | Yadav | first | CS | Azamgarh | 91 |

| 119 | Devansh | first | CS | kanpur | 95 |

| 132 | Aquib | first | CS | Kanpur | 99 |

| 128 | shiva | second | IT | Agra | 85 |

| 104 | Akki | first | CS | Kanpur | 100 |

| 113 | Ashi | first | CS | Delhi | 97 |

+---------+---------+----------+--------+----------+-------+

8 rows in set (0.00 sec)

mysql> select \* from student where name like 's%';

+---------+-------+----------+--------+------+-------+

| roll\_no | name | division | branch | city | marks |

+---------+-------+----------+--------+------+-------+

| 128 | shiva | second | IT | Agra | 85 |

+---------+-------+----------+--------+------+-------+

1 row in set (0.00 sec)

mysql> select \* from student where marks between '50' and '60';

+---------+-------+----------+--------+-----------+-------+

| roll\_no | name | division | branch | city | marks |

+---------+-------+----------+--------+-----------+-------+

| 109 | Tarun | second | IT | gorakhpur | 60 |

+---------+-------+----------+--------+-----------+-------+

1 row in set (0.00 sec)

mysql> select \* from student where branch ="computer" and city ="pune";

Empty set (0.00 sec)

mysql> update student set branch= 'IT' where roll\_no='119';

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

mysql> select \* from student;

+---------+---------+----------+--------+-----------+-------+

| roll\_no | name | division | branch | city | marks |

+---------+---------+----------+--------+-----------+-------+

| 101 | baniya | first | CS | jhashi | 95 |

| 105 | negi | first | CS | kanpur | 90 |

| 108 | Yadav | first | CS | Azamgarh | 91 |

| 119 | Devansh | first | IT | kanpur | 95 |

| 109 | Tarun | second | IT | gorakhpur | 60 |

| 132 | Aquib | first | CS | Kanpur | 99 |

| 128 | shiva | second | IT | Agra | 85 |

| 130 | Manish | fail | CS | Deoria | 0 |

| 104 | Akki | first | CS | Kanpur | 100 |

| 113 | Ashi | first | CS | Delhi | 97 |

+---------+---------+----------+--------+-----------+-------+

10 rows in set (0.00 sec)

mysql> create table TE\_Students(roll\_no int ,name varchar(10));

Query OK, 0 rows affected (0.06 sec)

mysql> insert into TE\_students(roll\_no,name) values(11,'Bheem');

Query OK, 1 row affected (0.01 sec)

mysql> insert into TE\_students(roll\_no,name) values(18,'Kalia');

Query OK, 1 row affected (0.01 sec)

mysql> insert into TE\_students(roll\_no,name) values(01,'Dholu');

Query OK, 1 row affected (0.01 sec)

mysql> insert into TE\_students(roll\_no,name) values(02,'bholu');

Query OK, 1 row affected (0.01 sec)

mysql> select roll\_no from student Union select roll\_no form TE\_Students;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'TE\_Students' at line 1

mysql> select roll\_no from student Union select roll\_no from TE\_Students;

+---------+

| roll\_no |

+---------+

| 101 |

| 105 |

| 108 |

| 119 |

| 109 |

| 132 |

| 128 |

| 130 |

| 104 |

| 113 |

| 11 |

| 18 |

| 1 |

| 2 |

+---------+

14 rows in set (0.00 sec)

mysql> select \* from te\_Students;

+---------+-------+

| roll\_no | name |

+---------+-------+

| 11 | Bheem |

| 18 | Kalia |

| 1 | Dholu |

| 2 | bholu |

+---------+-------+

4 rows in set (0.00 sec)

mysql> select upper(name) from students;

ERROR 1146 (42S02): Table 'sampledb.students' doesn't exist

mysql> select upper(name) from students;

ERROR 1146 (42S02): Table 'sampledb.students' doesn't exist

mysql> select upper(name) from student;

+-------------+

| upper(name) |

+-------------+

| BANIYA |

| NEGI |

| YADAV |

| DEVANSH |

| TARUN |

| AQUIB |

| SHIVA |

| MANISH |

| AKKI |

| ASHI |

+-------------+

10 rows in set (0.00 sec)

mysql> select hex(marks) , bin(marks) from students;

ERROR 1146 (42S02): Table 'sampledb.students' doesn't exist

mysql> select hex(marks) , bin(marks) from student;

+------------+------------+

| hex(marks) | bin(marks) |

+------------+------------+

| 5F | 1011111 |

| 5A | 1011010 |

| 5B | 1011011 |

| 5F | 1011111 |

| 3C | 111100 |

| 63 | 1100011 |

| 55 | 1010101 |

| 0 | 0 |

| 64 | 1100100 |

| 61 | 1100001 |

+------------+------------+

10 rows in set (0.00 sec)

mysql>

**MySQL Assignment 2**

7.CREATE INDEX command: CREATE INDEX index\_name ON table\_name column\_name);

8.DROP INDEX command: DROP INDEX index\_name ON table\_name;

ALTER TABLE table\_name. DROP INDEX index\_name;

9.MySQL: ALTER TABLE table\_name. DROP INDEX index\_name;

**From here commadline statements starts;**

Enter password: \*\*\*\*\*\*\*\*\*\*\*

Welcome to the MySQL monitor. Commands end with ; or \g.

Your MySQL connection id is 13

Server version: 8.0.29 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> show databases;

+--------------------+

| Database |

+--------------------+

| firstdb |

| information\_schema |

| mysql |

| performance\_schema |

| sampledb |

| sys |

+--------------------+

6 rows in set (0.00 sec)

mysql> use sampledb;

Database changed

mysql> create table Customers(cust\_id int ,cust\_name varchar(15),product varchar(10),quantity int ,total\_price int);

Query OK, 0 rows affected (0.05 sec)

mysql> desc customers;

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| cust\_id | int | YES | | NULL | |

| cust\_name | varchar(15) | YES | | NULL | |

| product | varchar(10) | YES | | NULL | |

| quantity | int | YES | | NULL | |

| total\_price | int | YES | | NULL | |

+-------------+-------------+------+-----+---------+-------+

5 rows in set (0.01 sec)

mysql> alter table customers delete cust\_id;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'delete cust\_id' at line 1

mysql> alter table customers drop column cust\_id;

Query OK, 0 rows affected (0.04 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc customers;

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| cust\_name | varchar(15) | YES | | NULL | |

| product | varchar(10) | YES | | NULL | |

| quantity | int | YES | | NULL | |

| total\_price | int | YES | | NULL | |

+-------------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> alter table customers add id int auto\_increment;

ERROR 1075 (42000): Incorrect table definition; there can be only one auto column and it must be defined as a key

mysql> alter table customers add id int not null auto\_increment;

ERROR 1075 (42000): Incorrect table definition; there can be only one auto column and it must be defined as a key

mysql> rollback;

Query OK, 0 rows affected (0.00 sec)

mysql> desc customers;

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| cust\_name | varchar(15) | YES | | NULL | |

| product | varchar(10) | YES | | NULL | |

| quantity | int | YES | | NULL | |

| total\_price | int | YES | | NULL | |

+-------------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> rollback;

Query OK, 0 rows affected (0.00 sec)

mysql> desc customers;

+-------------+-------------+------+-----+---------+-------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+-------+

| cust\_name | varchar(15) | YES | | NULL | |

| product | varchar(10) | YES | | NULL | |

| quantity | int | YES | | NULL | |

| total\_price | int | YES | | NULL | |

+-------------+-------------+------+-----+---------+-------+

4 rows in set (0.00 sec)

mysql> alter table customers add cust\_id int NOT null Auto\_increment primary key;

Query OK, 0 rows affected (0.10 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> desc customers;

+-------------+-------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+----------------+

| cust\_name | varchar(15) | YES | | NULL | |

| product | varchar(10) | YES | | NULL | |

| quantity | int | YES | | NULL | |

| total\_price | int | YES | | NULL | |

| cust\_id | int | NO | PRI | NULL | auto\_increment |

+-------------+-------------+------+-----+---------+----------------+

5 rows in set (0.00 sec)

mysql> insert into customers (cust\_name,product ,quantity,total\_price)

-> values('devansh','notebook',2,150) ,('Abhishek','Book',1,100)

-> ,('Banerji','Desk',1,250),

-> ('Prateek','Chair',2,250),

-> ('Vansh','Bed',1,450);

Query OK, 5 rows affected (0.01 sec)

Records: 5 Duplicates: 0 Warnings: 0

mysql> desc customers;

+-------------+-------------+------+-----+---------+----------------+

| Field | Type | Null | Key | Default | Extra |

+-------------+-------------+------+-----+---------+----------------+

| cust\_name | varchar(15) | YES | | NULL | |

| product | varchar(10) | YES | | NULL | |

| quantity | int | YES | | NULL | |

| total\_price | int | YES | | NULL | |

| cust\_id | int | NO | PRI | NULL | auto\_increment |

+-------------+-------------+------+-----+---------+----------------+

5 rows in set (0.00 sec)

mysql> Select \* from customers;

+-----------+----------+----------+-------------+---------+

| cust\_name | product | quantity | total\_price | cust\_id |

+-----------+----------+----------+-------------+---------+

| devansh | notebook | 2 | 150 | 1 |

| Abhishek | Book | 1 | 100 | 2 |

| Banerji | Desk | 1 | 250 | 3 |

| Prateek | Chair | 2 | 250 | 4 |

| Vansh | Bed | 1 | 450 | 5 |

+-----------+----------+----------+-------------+---------+

5 rows in set (0.00 sec)

mysql> alter table customers add column price\_per\_quantity int ;

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> Select \* from customers;

+-----------+----------+----------+-------------+---------+--------------------+

| cust\_name | product | quantity | total\_price | cust\_id | price\_per\_quantity |

+-----------+----------+----------+-------------+---------+--------------------+

| devansh | notebook | 2 | 150 | 1 | NULL |

| Abhishek | Book | 1 | 100 | 2 | NULL |

| Banerji | Desk | 1 | 250 | 3 | NULL |

| Prateek | Chair | 2 | 250 | 4 | NULL |

| Vansh | Bed | 1 | 450 | 5 | NULL |

+-----------+----------+----------+-------------+---------+--------------------+

5 rows in set (0.00 sec)

mysql> create view Cust\_View as select cust\_id,cust\_name,total\_price;

ERROR 1054 (42S22): Unknown column 'cust\_id' in 'field list'

mysql> create view Cust\_View as select cust\_name,total\_price,cust\_id;

ERROR 1054 (42S22): Unknown column 'cust\_name' in 'field list'

mysql> create view Cust\_View as select cust\_id,cust\_name,total\_price where cust\_id>=5;

ERROR 1054 (42S22): Unknown column 'cust\_id' in 'field list'

mysql> create view Cust\_View as select cust\_id,cust\_name,total\_price where cust\_id>=5;

ERROR 1054 (42S22): Unknown column 'cust\_id' in 'field list'

mysql> create view Cust\_View as select cust\_id,cust\_name;

ERROR 1054 (42S22): Unknown column 'cust\_id' in 'field list'

mysql> Select \* from customers;

+-----------+----------+----------+-------------+---------+--------------------+

| cust\_name | product | quantity | total\_price | cust\_id | price\_per\_quantity |

+-----------+----------+----------+-------------+---------+--------------------+

| devansh | notebook | 2 | 150 | 1 | NULL |

| Abhishek | Book | 1 | 100 | 2 | NULL |

| Banerji | Desk | 1 | 250 | 3 | NULL |

| Prateek | Chair | 2 | 250 | 4 | NULL |

| Vansh | Bed | 1 | 450 | 5 | NULL |

+-----------+----------+----------+-------------+---------+--------------------+

5 rows in set (0.00 sec)

mysql> create view Cust\_View as select cust\_id,cust\_name from customers;

Query OK, 0 rows affected (0.01 sec)

mysql> show view cust\_view;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'view cust\_view' at line 1

mysql> Select \* from cust\_view;

+---------+-----------+

| cust\_id | cust\_name |

+---------+-----------+

| 1 | devansh |

| 2 | Abhishek |

| 3 | Banerji |

| 4 | Prateek |

| 5 | Vansh |

+---------+-----------+

5 rows in set (0.00 sec)

mysql> replace view cust\_view as select cust\_id,product, total\_price from customers;

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'cust\_view as select cust\_id,product, total\_price from customers' at line 1

mysql> create or replace view cust\_view as select cust\_id,product, total\_price from customers;

Query OK, 0 rows affected (0.02 sec)

mysql> Select \* from cust\_view;

+---------+----------+-------------+

| cust\_id | product | total\_price |

+---------+----------+-------------+

| 1 | notebook | 150 |

| 2 | Book | 100 |

| 3 | Desk | 250 |

| 4 | Chair | 250 |

| 5 | Bed | 450 |

+---------+----------+-------------+

5 rows in set (0.00 sec)

mysql> drop view cust\_view;

Query OK, 0 rows affected (0.02 sec)

mysql> create index cust\_index on customers(cust\_name);

Query OK, 0 rows affected (0.07 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> alter table customers drop index cust\_index;

Query OK, 0 rows affected (0.03 sec)

Records: 0 Duplicates: 0 Warnings: 0

mysql> select \* from customers as cust;

+-----------+----------+----------+-------------+---------+--------------------+

| cust\_name | product | quantity | total\_price | cust\_id | price\_per\_quantity |

+-----------+----------+----------+-------------+---------+--------------------+

| devansh | notebook | 2 | 150 | 1 | NULL |

| Abhishek | Book | 1 | 100 | 2 | NULL |

| Banerji | Desk | 1 | 250 | 3 | NULL |

| Prateek | Chair | 2 | 250 | 4 | NULL |

| Vansh | Bed | 1 | 450 | 5 | NULL |

+-----------+----------+----------+-------------+---------+--------------------+

5 rows in set (0.00 sec)

mysql> drop table cust;

ERROR 1051 (42S02): Unknown table 'sampledb.cust'

mysql> drop table customers;

Query OK, 0 rows affected (0.03 sec)

mysql> select \* from customers;

ERROR 1146 (42S02): Table 'sampledb.customers' doesn't exist

mysql>