//Name -Prerana Gajare Roll no-SI41 Class-SEIT

1. Create Table with primary key and foreign key constraints.

a. Alter table with add n modify b. Drop table

(Note: All constraints, primary key, foreign key (All possible combinations of foreign key reference options), all options of alter table)

SOURCE CODE :-

# SHOW DATABASE

mysql> show databases;

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

| Database |

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

| class |

| employee |

| information\_schema |

| mysql |

| performance\_schema |

| student |

| sys |

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

7 rows in set (0.00 sec)

# CREATE DATABASE

mysql> create database emp;

Query OK, 1 row affected (0.01 sec)

# SHOW DATABASE

mysql> show databases;

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

| Database |

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

| class |

| emp |

| employee |

| information\_schema |

| mysql |

| performance\_schema |

| student |

| sys |

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

8 rows in set (0.00 sec)

# USE EMP DATABASE

mysql> use emp;

Database changed

# SELECT DATABASE

mysql> select database();

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

| database() |

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

| emp |

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

1 row in set (0.00 sec)

# CREATE TABLE USING NOT NULL CONSTRAINT

mysql> create table emp(empid int not null,name varchar(10) not null,city varchar(10));

Query OK, 0 rows affected (0.02 sec)

# DESCRIBING THE STRUCTURE OF THE TABLE

mysql> desc emp;

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

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

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

| empid | int | NO | | NULL | |

| name | varchar(10) | NO | | NULL | |

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

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

3 rows in set (0.00 sec)

# INSERTING THE RECORD INTO THE TABLE

mysql> insert into emp(name ,city) values ("Abhay","Pune");

Query OK, 1 row affected, 1 warning (0.01 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| 0 | Abhay | Pune |

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

1 row in set (0.01 sec)

# INSERTING THE RECORD INTO THE TABLE

mysql> insert into emp(empid ,city) values (1,"Pune");

Query OK, 1 row affected, 1 warning (0.00 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| 0 | Abhay | Pune |

| 1 | | Pune |

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

2 rows in set (0.00 sec)

# INSERTING THE RECORD INTO THE TABLE

mysql> insert into emp(empid ,name) values (2,"Bhim");

Query OK, 1 row affected (0.00 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| 0 | Abhay | Pune |

| 1 | | Pune |

| 2 | Bhim | NULL |

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

3 rows in set (0.00 sec)

# INSERTING THE RECORD INTO THE TABLE

mysql> insert into emp(name ,city) values ("Caira","Pune");

Query OK, 1 row affected, 1 warning (0.00 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| 0 | Abhay | Pune |

| 1 | | Pune |

| 2 | Bhim | NULL |

| 0 | Caira | Pune |

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

4 rows in set (0.00 sec)

# DROP TABLE

mysql> drop table emp;

Query OK, 0 rows affected (0.01 sec)

# CREATE TABLE USING UNIQUE CONSTRAINT

mysql> create table emp(empid int unique,name varchar(10) not null,city varchar(10));

Query OK, 0 rows affected (0.01 sec)

# DESCRIBING THE TABLE

mysql> desc emp;

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

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

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

| empid | int | YES | UNI | NULL | |

| name | varchar(10) | NO | | NULL | |

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

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

3 rows in set (0.00 sec)

# INSERTING THE RECORDS IN THE TABLE

mysql> insert into emp(name ,city) values ("Abhay","Pune");

Query OK, 1 row affected (0.01 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| NULL | Abhay | Pune |

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

1 row in set (0.00 sec)

# INSERTING THE RECORDS IN THE TABLE

mysql> insert into emp values (1,"Bhim","Pune");

Query OK, 1 row affected (0.00 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| NULL | Abhay | Pune |

| 1 | Bhim | Pune |

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

2 rows in set (0.00 sec)

# INSERTING THE RECORDS IN THE TABLE

mysql> insert into emp values (1,"Caira","Pune");

ERROR 1062 (23000): Duplicate entry '1' for key 'emp.empid'

mysql> insert into emp(name ,city) values ("Dev","Pune");

Query OK, 1 row affected (0.00 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| NULL | Abhay | Pune |

| 1 | Bhim | Pune |

| NULL | Dev | Pune |

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

3 rows in set (0.00 sec)

# DROP TABLE

mysql> drop table emp;

Query OK, 0 rows affected (0.01 sec)

# CREATE TABLE USING PRIMARY KEY CONSTRAINT COLOUMN LEVEL

mysql> create table emp(empid int primary key,name varchar(10),city varchar(10));

Query OK, 0 rows affected (0.01 sec)

#DESCRIBING THE TABLE

mysql> desc emp;

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

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

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

| empid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

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

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

3 rows in set (0.00 sec)

#INSERTING THE RECORDS IN THE TABLE

mysql> insert into emp(name,city) values ("Abhay","Pune");

Query OK, 1 row affected, 1 warning (0.00 sec)

# DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| 0 | Abhay | Pune |

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

1 row in set (0.00 sec)

#INSERTING THE RECORDS IN THE TABLE

mysql> insert into emp(name,city) values ("Bhim","Mumbai");

ERROR 1062 (23000): Duplicate entry '0' for key 'emp.PRIMARY'

mysql> insert into emp values (1,"Bhim","Mumbai");

Query OK, 1 row affected (0.00 sec)

#DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| 0 | Abhay | Pune |

| 1 | Bhim | Mumbai |

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

2 rows in set (0.00 sec)

# INSERTING THE RECORDS IN THE TABLE

mysql> insert into emp values (1,"Caira","Pune");

ERROR 1062 (23000): Duplicate entry '1' for key 'emp.PRIMARY'

#DISPLAY DATABASE

mysql> select \* from emp;

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

| empid | name | city |

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

| 0 | Abhay | Pune |

| 1 | Bhim | Mumbai |

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

2 rows in set (0.00 sec)

# DROP TABLE

mysql> drop table emp;

Query OK, 0 rows affected (0.01 sec)

# CREATE TABLE USING PRIMARY KEY CONSTRAINT TABLE LEVEL

mysql> create table emp(empid int,name varchar(10),city varchar(10),primary key(empid));

Query OK, 0 rows affected (0.01 sec)

# DESCRIBING THE TABLE

mysql> desc emp;

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

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

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

| empid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

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

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

3 rows in set (0.01 sec)

# DROP TABLE

mysql> drop table emp;

Query OK, 0 rows affected (0.01 sec)

# FOREIGN KEY

mysql> set foreign\_key\_checks=1;

Query OK, 0 rows affected (0.00 sec)

# CREATING AN EMP TABLE

mysql> create table emp(

-> eid int primary key,

-> name varchar(10))engine=innodb;

Query OK, 0 rows affected (0.04 sec)

# CREATING PROJECT TABLE HAVING FOREIGN KEY (eid)

mysql> create table project(

-> pid int primary key,

-> name varchar(10),

-> eid int,foreign key(eid) references emp(eid))engine =innodb;

Query OK, 0 rows affected (0.05 sec)

# DESCRIBING EMP TABLE

mysql> desc emp;

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

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

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

| eid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

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

2 rows in set (0.00 sec)

# DESCRIBING PROJECT TABLE

mysql> desc project;

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

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

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

| pid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

| eid | int | YES | MUL | NULL | |

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

3 rows in set (0.00 sec)

# INSERT DATA INTO CHILD TABLE WHICH IS NOT PRESENT IN PARENT TABLE BY DEFAULT RESTRICT CONSTRAINT

mysql> insert into project values(101,"ERP",1);

ERROR 1452 (23000): Cannot add or update a child row: a foreign key constraint fails (`emp`.`project`, CONSTRAINT `project\_ibfk\_1` FOREIGN KEY (`eid`) REFERENCES `emp` (`eid`))

#INSERT DATA INTO PARENT TABLE

mysql> insert into emp values(1,"Abhay");

Query OK, 1 row affected (0.01 sec)

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Abhay |

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

1 row in set (0.00 sec)

#INSERT DATA INTO CHILD TABLE

mysql> insert into project values(101,"ERP",1);

Query OK, 1 row affected (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 1 |

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

1 row in set (0.00 sec)

#INSERT DATA INTO PARENT TABLE

mysql> insert into emp values(2,"Bhim"),(3,"Caira");

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Abhay |

| 2 | Bhim |

| 3 | Caira |

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

3 rows in set (0.00 sec)

#INSERT DATA INTO CHILD TABLE

mysql> insert into project values(102,"Web dev",2);

Query OK, 1 row affected (0.01 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 1 |

| 102 | Web dev | 2 |

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

2 rows in set (0.00 sec)

#DELETE DATA FROM PARENT TABLE BY DEFAULT RESTRICT CONSTRAINT

mysql> delete from emp

-> where eid=1;

ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`emp`.`project`, CONSTRAINT `project\_ibfk\_1` FOREIGN KEY (`eid`) REFERENCES `emp` (`eid`))

#DELETE DATA FROM CHILD TABLE

mysql> delete from project

-> where eid=1;

Query OK, 1 row affected (0.01 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 102 | Web dev | 2 |

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

1 row in set (0.00 sec)

#DELETE DATA FROM PARENT TABLE

mysql> delete from emp;

ERROR 1451 (23000): Cannot delete or update a parent row: a foreign key constraint fails (`emp`.`project`, CONSTRAINT `project\_ibfk\_1` FOREIGN KEY (`eid`) REFERENCES `emp` (`eid`))

mysql> delete from emp

-> where eid=1;

Query OK, 1 row affected (0.01 sec)

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 2 | Bhim |

| 3 | Caira |

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

2 rows in set (0.00 sec)

# DROP TABLE

mysql> drop table project;

Query OK, 0 rows affected (0.03 sec)

#ON DELETE CASCADE AND ON UPDATE CASCADE

mysql> create table project(

-> pid int primary key,

-> name varchar(10),

-> eid int,foreign key(eid) references emp(eid) on delete cascade on update cascade)engine =innodb;

Query OK, 0 rows affected (0.04 sec)

# DESCRIBING THE TABLE

mysql> desc project;

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

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

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

| pid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

| eid | int | YES | MUL | NULL | |

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

3 rows in set (0.00 sec)

#INSERT DATA INTO PARENT TABLE

mysql> insert into emp values(1,"Abhay");

Query OK, 1 row affected (0.01 sec)

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Abhay |

| 2 | Bhim |

| 3 | Caira |

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

3 rows in set (0.00 sec)

#INSERT DATA INTO CHILDTABLE

mysql> insert into project values(101,"ERP",1),(102,"WEBDEV",2);

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 1 |

| 102 | WEBDEV | 2 |

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

2 rows in set (0.00 sec)

#DELETING RECORD FROM PARENT TABLE

mysql> delete from emp

-> where eid =2;

Query OK, 1 row affected (0.00 sec)

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Abhay |

| 3 | Caira |

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

2 rows in set (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 1 |

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

1 row in set (0.00 sec)

#UPDATING RECORD FROM PARENT TABLE

mysql> update emp

-> set eid =4

-> where name="abhay";

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 2 | Caira |

| 4 | Abhay |

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

2 rows in set (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 4 |

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

1 row in set (0.00 sec)

# DROP TABLE PROJECT

mysql> drop table project;

Query OK, 0 rows affected (0.02 sec)

#ON DELETE SET NULL AND ON UPDATE SET NULL

mysql> create table project(

-> pid int primary key,

-> name varchar(10),

-> eid int,foreign key(eid) references emp(eid) on delete set null on update set null)engine =innodb;

Query OK, 0 rows affected (0.05 sec)

#INSERT DATA INTO CHILD TABLE

mysql> insert into project values(101,"ERP",2),(102,"WEBDEV",4);

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 2 |

| 102 | WEBDEV | 4 |

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

2 rows in set (0.00 sec)

#DELETING RECORD FROM PARENT TABLE

mysql> delete from emp

-> where eid=2;

Query OK, 1 row affected (0.01 sec)

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 4 | Abhay |

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

1 row in set (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | NULL |

| 102 | WEBDEV | 4 |

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

2 rows in set (0.00 sec)

#UPDATING RECORD IN PARENT TABLE

mysql> update emp

-> set eid =1

-> where name="abhay";

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Abhay |

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

1 row in set (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | NULL |

| 102 | WEBDEV | NULL |

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

2 rows in set (0.00 sec)

# DROP TABLE PROJECT

mysql> drop table project;

Query OK, 0 rows affected (0.03 sec)

#ON DELETE CASCADE AND ON UPDATE SET NULL

mysql> create table project(

-> pid int primary key,

-> name varchar(10),

-> eid int,foreign key(eid) references emp(eid) on delete cascade on update set null)engine =innodb;

Query OK, 0 rows affected (0.05 sec)

# DESCRIBING THE TABLE

mysql> desc project;

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

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

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

| pid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

| eid | int | YES | MUL | NULL | |

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

3 rows in set (0.01 sec)

#INSERT DATA INTO CHILD TABLE

mysql> insert into project values(101,"ERP",1);

Query OK, 1 row affected (0.01 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 1 |

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

1 row in set (0.00 sec)

#DELETE DATA FROM PARENT TABLE

mysql> delete from emp

-> where eid =1;

Query OK, 1 row affected (0.01 sec)

#DISPLAY EMP TABLE

mysql> select \* from emp;

Empty set (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

Empty set (0.00 sec)

#INSERT DATA INTO PARENT TABLE

mysql> insert into emp values(2,"Bhim"),(3,"Caira");

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

#INSERT DATA INTO CHILD TABLE

mysql> insert into project values(102,"WebDEv",2),(103,"Apps",3);

Query OK, 2 rows affected (0.01 sec)

Records: 2 Duplicates: 0 Warnings: 0

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 2 | Bhim |

| 3 | Caira |

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

2 rows in set (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 102 | WebDEv | 2 |

| 103 | Apps | 3 |

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

2 rows in set (0.00 sec)

#UPDATING RECORD IN PARENT TABLE

mysql> update emp

-> set eid=1

-> where name="bhim";

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

# DISPLAY EMP TABLE

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Bhim |

| 3 | Caira |

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

2 rows in set (0.00 sec)

# DISPLAY PROJECT TABLE

mysql> select \* from project;

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

| pid | name | eid |

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

| 102 | WebDEv | NULL |

| 103 | Apps | 3 |

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

2 rows in set (0.00 sec)

mysql> drop table emp;

Query OK, 0 rows affected (0.02 sec)

drop table project;

Query OK, 0 rows affected (0.02 sec)

#ON UPDATE CASCADE AND ON DELETE SET NULL

# CREATING EMPTABLE

mysql> create table emp(

-> eid int primary key,

-> name varchar(10))engine=innodb;

Query OK, 0 rows affected (0.03 sec)

#DESCRIBING THE TABLE

mysql> desc emp;

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

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

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

| eid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

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

2 rows in set (0.01 sec)

# INSERTING THE DATA IN PARENT TABLE

mysql> insert into emp values( 1,"Aman"),(2,"Bhim"),(3,"Caira");

Query OK, 3 rows affected (0.01 sec)

Records: 3 Duplicates: 0 Warnings: 0

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Aman |

| 2 | Bhim |

| 3 | Caira |

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

3 rows in set (0.00 sec)

# CREATING PROJECT TABLE WITH ON UPDATE CASCADE AND ON DELETE SET NULL

mysql> create table project(

-> pid int primary key,

-> name varchar(10),

-> eid int,foreign key(eid) references emp(eid) on update cascade on delete set null)engine =innodb;

Query OK, 0 rows affected (0.04 sec)

#DESCRIBING THE TABLE

mysql> desc project;

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

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

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

| pid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

| eid | int | YES | MUL | NULL | |

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

3 rows in set (0.00 sec)

# INSERTING THE DATA IN CHILD TABLE

mysql> insert into project values(101,"ERP",1);

Query OK, 1 row affected (0.01 sec)

# DISPLAYING THE RECORDS

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | 1 |

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

1 row in set (0.00 sec)

#DELETE DATA FROM PARENT TABLE

mysql> delete from emp

-> where eid=1;

Query OK, 1 row affected (0.01 sec)

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name |

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

| 2 | Bhim |

| 3 | Caira |

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

2 rows in set (0.00 sec)

#DISPLAYING THE RECORDS

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | NULL |

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

1 row in set (0.00 sec)

# INSERTING THE DATA IN CHILD TABLE

mysql> insert into project values(102,"WEB",2);

Query OK, 1 row affected (0.00 sec)

#DISPLAYING THE RECORDS

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | NULL |

| 102 | WEB | 2 |

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

# UPDATING THE RECORD IN PARENT TABLE

mysql> update emp

-> set eid=1

-> where name="bhim";

Query OK, 1 row affected (0.01 sec)

Rows matched: 1 Changed: 1 Warnings: 0

#DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Bhim |

| 3 | Caira |

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

2 rows in set (0.00 sec)

#DISPLAYING THE RECORDS

mysql> select \* from project;

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

| pid | name | eid |

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

| 101 | ERP | NULL |

| 102 | WEB | 1 |

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

2 rows in set (0.00 sec)

# DROP TABLE EMP

mysql> drop table emp;

Query OK, 0 rows affected (0.02 sec)

#DEFAULT CONSTRAINT

# CREATE TABLE EMP

mysql> create table emp(

-> eid int primary key,

-> name varchar(10),

-> city varchar(10) default "Pune");

Query OK, 0 rows affected (0.02 sec)

# DESCRIBING THE TABLE

mysql> desc emp;

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

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

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

| eid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

| city | varchar(10) | YES | | Pune | |

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

3 rows in set (0.00 sec)

# INSERTING THE DATA IN EMP TABLE

mysql> insert into emp(eid,name) values (1,"Abhi");

Query OK, 1 row affected (0.01 sec)

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name | city |

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

| 1 | Abhi | Pune |

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

1 row in set (0.01 sec)

# INSERTING THE DATA IN EMP TABLE

mysql> insert into emp values (2,"Bhim","Goa");

Query OK, 1 row affected (0.00 sec)

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name | city |

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

| 1 | Abhi | Pune |

| 2 | Bhim | Goa |

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

2 rows in set (0.00 sec)

# DROP TABLE EMP

mysql> drop table emp;

Query OK, 0 rows affected (0.01 sec)

#CHECK CONSTRAINT

# CREATE TABLE EMP

mysql> create table emp(

-> eid int,

-> name varchar(10),

-> salary int check (salary > 10000));

Query OK, 0 rows affected (0.01 sec)

# INSERTING THE DATA IN EMP TABLE

mysql> insert into emp values(1,"Abhi",20000);

Query OK, 1 row affected (0.00 sec)

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name | salary |

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

| 1 | Abhi | 20000 |

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

1 row in set (0.00 sec)

# INSERTING THE DATA IN EMP TABLE AND CHECK CONSTRAINT BEING VIOLATED

mysql> insert into emp values(2,"Bhim",8000);

ERROR 3819 (HY000): Check constraint 'emp\_chk\_1' is violated.

# DROP TABLE EMP

mysql> drop table emp;

Query OK, 0 rows affected (0.01 sec)

# Alter table

# CREATE TABLE NAME EMP

mysql> create table emp(

-> eid int,

-> name varchar(10));

Query OK, 0 rows affected (0.01 sec)

# DESCRIBING THE TABLE EMP

mysql> desc emp;

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

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

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

| eid | int | YES | | NULL | |

| name | varchar(10) | YES | | NULL | |

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

2 rows in set (0.00 sec)

# INSERTING THE DATA IN EMP TABLE

mysql> insert into emp values(1,"Abhi");

Query OK, 1 row affected (0.00 sec)

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name |

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

| 1 | Abhi |

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

1 row in set (0.00 sec)

#ADD A COLUMN IN A TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> add city varchar(10) not null;

Query OK, 1 row affected (0.04 sec)

Records: 1 Duplicates: 0 Warnings: 0

#ADD A COLUMN IN A TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> add salary int after name;

Query OK, 1 row affected (0.04 sec)

Records: 1 Duplicates: 0 Warnings: 0

# DESCRIBING THE TABLE EMP

mysql> desc emp;

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

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

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

| eid | int | YES | | NULL | |

| name | varchar(10) | YES | | NULL | |

| salary | int | YES | | NULL | |

| city | varchar(10) | NO | | NULL | |

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

4 rows in set (0.00 sec)

# UPDATE TABLE EMP

mysql> update emp

-> set salary=10000,city="Pune"

-> where eid=1;

Query OK, 1 row affected (0.00 sec)

Rows matched: 1 Changed: 1 Warnings: 0

# DISPLAY THE RECORDS

mysql> select \* from emp;

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

| eid | name | salary | city |

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

| 1 | Abhi | 10000 | Pune |

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

1 row in set (0.00 sec)

#ADD A CONSTRAINT IN A TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> add constraint pk primary key(eid);

Query OK, 1 row affected (0.05 sec)

Records: 1 Duplicates: 0 Warnings: 0

# DESCRIBING THE TABLE EMP

mysql> desc emp;

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

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

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

| eid | int | NO | PRI | NULL | |

| name | varchar(10) | YES | | NULL | |

| salary | int | YES | | NULL | |

| city | varchar(10) | NO | | NULL | |

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

4 rows in set (0.00 sec)

#DROP A CONSTRAINT IN A TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> drop primary key ;

Query OK, 1 row affected (0.04 sec)

Records: 1 Duplicates: 0 Warnings: 0

# DESCRIBING THE TABLE EMP

mysql> desc emp;

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

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

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

| eid | int | NO | | NULL | |

| name | varchar(10) | YES | | NULL | |

| salary | int | YES | | NULL | |

| city | varchar(10) | NO | | NULL | |

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

4 rows in set (0.00 sec)

#MODIFY COLUMN IN THE TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> modify city varchar(20);

Query OK, 1 row affected (0.04 sec)

Records: 1 Duplicates: 0 Warnings: 0

#MODIFY COLUMN IN THE TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> modify salary int after city;

Query OK, 1 row affected (0.04 sec)

Records: 1 Duplicates: 0 Warnings: 0

# DESCRIBING THE TABLE EMP

mysql> desc emp;

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

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

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

| eid | int | NO | | NULL | |

| name | varchar(10) | YES | | NULL | |

| city | varchar(20) | YES | | NULL | |

| salary | int | YES | | NULL | |

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

4 rows in set (0.00 sec)

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name | city | salary |

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

| 1 | Abhi | Pune | 10000 |

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

1 row in set (0.00 sec)

#DROP COLUMN IN TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> drop column city;

Query OK, 1 row affected (0.04 sec)

Records: 1 Duplicates: 0 Warnings: 0

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| eid | name | salary |

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

| 1 | Abhi | 10000 |

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

1 row in set (0.00 sec)

#RENAME COLUMN IN A TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> change column eid emp\_id int;

Query OK, 1 row affected (0.04 sec)

Records: 1 Duplicates: 0 Warnings: 0

# DISPLAYING THE RECORDS

mysql> select \* from emp;

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

| emp\_id | name | salary |

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

| 1 | Abhi | 10000 |

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

1 row in set (0.00 sec)

# RENAME TABLE USING ALTER TABLE QUERY

mysql> alter table emp

-> rename to empinfo;

Query OK, 0 rows affected (0.01 sec)

# DISPLAYING THE RECORDS

mysql> select \* from empinfo;

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

| emp\_id | name | salary |

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

| 1 | Abhi | 10000 |

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

1 row in set (0.00 sec)