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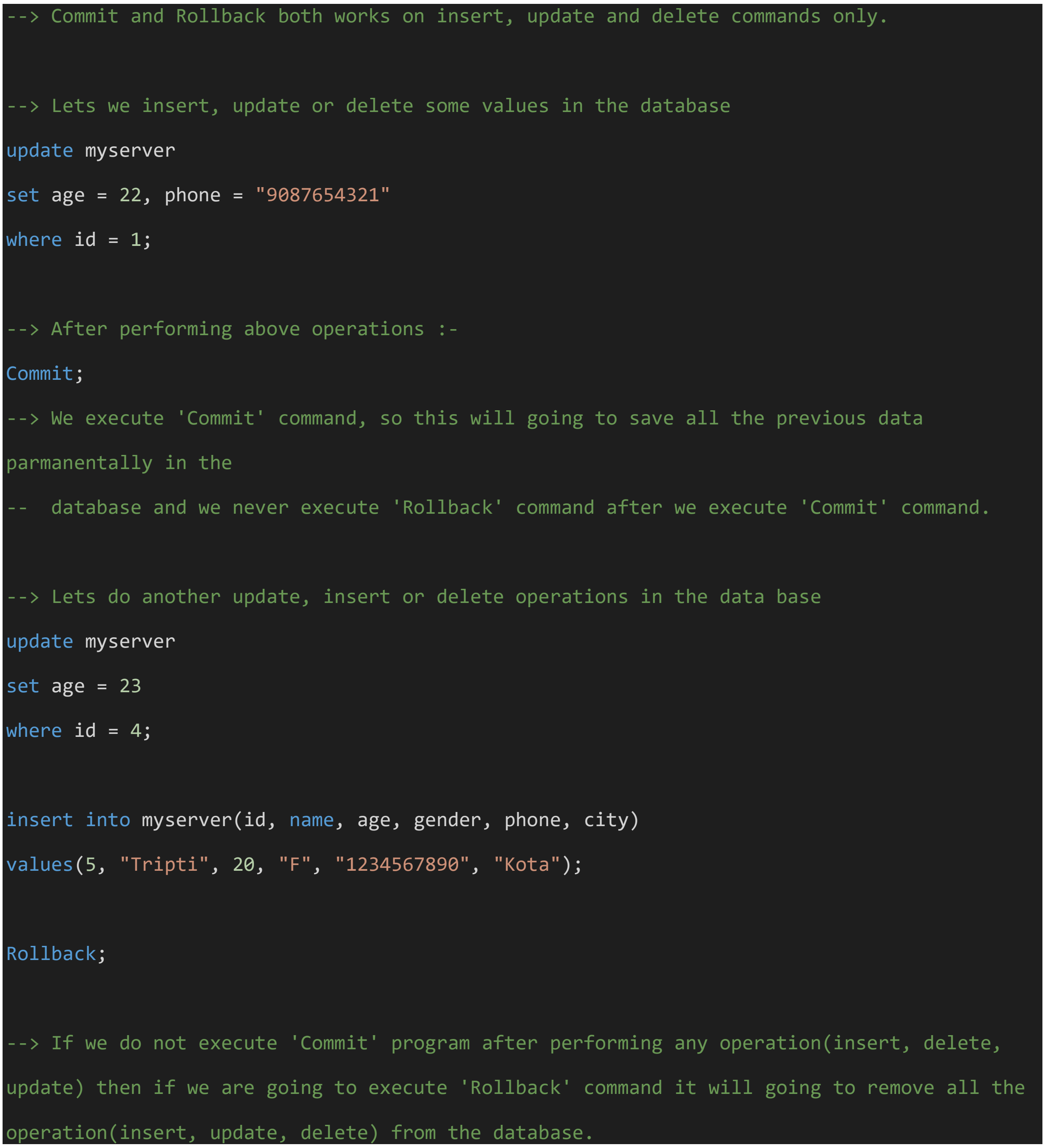
Commit And Rollback :-



```
--> Commit and Rollback both works on insert, update and delete commands only.

--> Lets we insert, update or delete some values in the database
update myserver
set age = 22, phone = "9087654321"
where id = 1;

--> After performing above operations :-
Commit;
--> We execute 'Commit' command, so this will going to save all the previous data
parmanentally in the
--  database and we never execute 'Rollback' command after we execute 'Commit' command.

--> Lets do another update, insert or delete operations in the data base
update myserver
set age = 23
where id = 4;

insert into myserver(id, name, age, gender, phone, city)
values(5, "Tripti", 20, "F", "1234567890", "Kota");

Rollback;

--> If we do not execute 'Commit' program after performing any operation(insert, delete,
update) then if we are going to execute 'Rollback' command it will going to remove all the
operation(insert, update, delete) from the database.
```

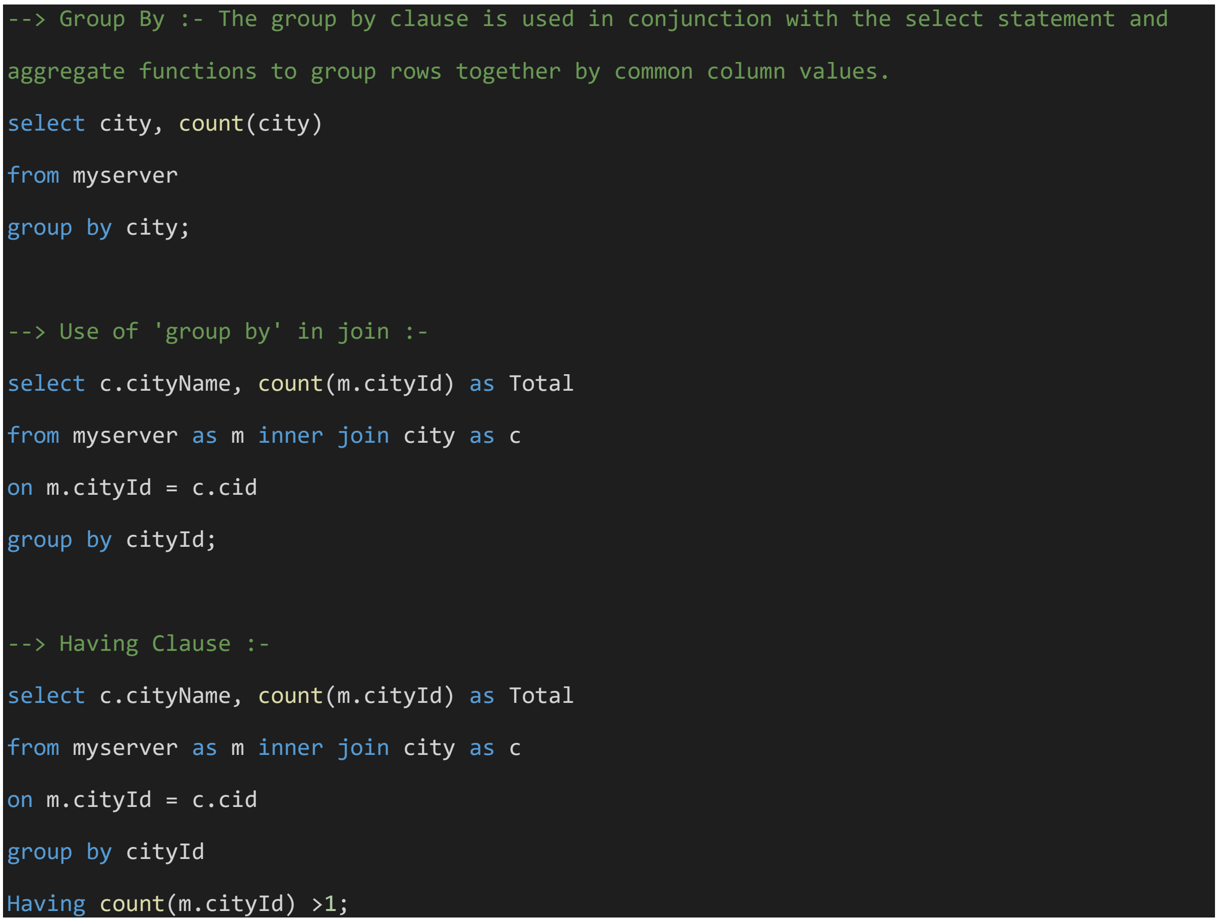
Primary And Foreign Key :-

```
--> Primary Key can always have unique and not null value.

--> A table can contain only one primary key constraint.

--> Way to create primary key in a database :-


create table myEmp(

    id int not null auto_increment, --> use to automatically insert the further int values.

    ename char(20) not null,

    age int not null,

    city varchar(50) not null,

    primary key(id)

    );


--> If we already have a table and we want any column as primary key :-

Alter table myserver

Add primary key(id);

--> How to create foreign key in the table.

create table myEmp(

    id int not null auto_increment,

    ename char(20) not null,

    age int not null,

    city varchar(50) not null,

    primary key(id),

    foreign key(city) References city(cid)

    );


--> If we already have a table and we want to add column as foreign key :-

Alter table myserver

Add foreign key(city) References city(cid);
```

Joins :-

```
--> Inner Join :- The inner join selects records that have matching values in both tables.

select *from myserver as m inner join city as c

on m.cityId = c.cid;


--> We can also apply some condition in the above code :-

select *from myserver as m join city as c  --> 'inner join' and 'join' both are same thing.

on m.cityId = c.cid

where c.cityName = "Gzp"

order by m.name;


--> Left Join :- The left join returns all records from the left table(myserver) and the

matched records from the right table(city).

select *from myserver as m left join city as c

on m.cityId = c.cid;


--> Right Join :- The right join returns all records from the right table(city) and the

matched record from the left table(myserver).

select *from myserver as m right join city as c

on m.cityId = c.cid;

--> Way to join multiple join :-

select *from

myserver as m inner join city as c

on m.cityId = c.id

inner join emp as e

on m.eID = e.SNo;
```

Group By And Having Clause :-



```
--> Group By :- The group by clause is used in conjunction with the select statement and
aggregate functions to group rows together by common column values.
select city, count(city)
from myserver
group by city;

--> Use of 'group by' in join :-
select c.cityName, count(m.cityId) as Total
from myserver as m inner join city as c
on m.cityId = c.cid
group by cityId;

--> Having Clause :-
select c.cityName, count(m.cityId) as Total
from myserver as m inner join city as c
on m.cityId = c.cid
group by cityId
Having count(m.cityId) >1;
```

Sub-Query :-

```
--> There are two queries in sub-query. First one is parent query and second one is child query.
select id, name from myserver
where cityId = (select cid from city where cityName = "Gzp")

--> Another view of the sub-query.
select id, name from myserver
where cityId in (select cid from city where cityName in ("Aurangabad", "Ghazipur"));

--> Use of sub-query with exists :- If any single record exists then parent command show results.

--> Use of sub-query with not exists :- If no any single record exists then parent command show results.
select id, name from myserver
where exists (select cid from city where cityName in ("Aurangabad", "Ghazipur"));

select id, name from myserver
where not exists (select cid from city where cityName in ("Aurangabad", "Ghazipur"));
```