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| **AIM:** | DDL Commands Database Creation |
| **Program 1** | |
| **PROBLEM STATEMENT :** | . Create a Table and show the relationship between two tables using a foreign key. |
| **Theory :** | **What is Data Definition Language (DDL)?**  Data Definition Language (DDL) is used to create and modify the structure of objects in a database using predefined commands and a specific syntax. These database objects include tables, sequences, locations, aliases, schemas and indexes.  DDL is an abbreviation of **Data Definition Language**.  The DDL Commands in Structured Query Language are used to create and modify the schema of the database and its objects. The syntax of DDL commands is predefined for describing the data. The commands of Data Definition Language deal with how the data should exist in the database. Following is the five DDL commands in SQL:  • **CREATE** Command  • **DROP** Command  • **ALTER** Command  • **TRUNCATE** Command  • **RENAME** Command  **CREATE Command**  CREATE is a DDL command used to create databases, tables, triggers, and other database objects.  Syntax to Create a Database: CREATE Database Database\_Name; Syntax to create a new table:  CREATE TABLE table\_name  (  column\_Name1 data\_type ( size of the column ) ,  column\_Name2 data\_type ( size of the column) ,  column\_Name3 data\_type ( size of the column) ,  ...  column\_NameN data\_type ( size of the column )  ) ;  **DROP Command**  DROP is a DDL command used to delete/remove the database  objects from the SQL database. This DDL command can easily  remove the entire table, view, or index from the database.  Syntax to remove a database: DROP DATABASE  Database\_Name; Syntax to remove a table: DROP TABLE  Table\_Name;  **ALTER Command**  ALTER is a DDL command which changes or modifies the  existing structure of the database, and it also changes the schema  of database objects. We can also add and drop constraints of the  table using the ALTER command Syntax to add a new field in  the table:  ALTER TABLE name\_of\_table ADD column\_name  column\_definition;  **TRUNCATE Command**  TRUNCATE is another DDL command which deletes or removes  all the records from the table.  Syntax of TRUNCATE command TRUNCATE TABLE  Table\_Name; |
| **Queries** | CREATE DATABASE Hotel;  use Hotel  CREATE TABLE Hotel (  H\_Name Varchar(120) Not Null,  H\_ID int Primary key,  H\_Address Varchar(200) Not Null,  H\_Num\_Emp int,  H\_vacancies int  ) ;  CREATE TABLE Employee (  E\_Name Varchar(70),  E\_Type Varchar(50),  E\_ID int primary key,  H\_ID int,  foreign key(H\_ID) references Hotel(H\_ID),  LastName varchar(255),  FirstName varchar(255),  Address varchar(255),  City varchar(255),  E\_Contact int,  E\_Salary int not null check(E\_salary>0)  );  create table Room(  R\_no int primary key,  R\_vacany boolean default true,  R\_price int not null,  R\_type varchar(30),  H\_ID int references Hotel(H\_ID)  );  create table Reservation(  Reservation\_no int primary key,  R\_intime datetime not null,  R\_outtime datetime,  Amount int not null check(Amount>0),  R\_no int references Room(R\_no),  C\_ID int references Customer(C\_ID)  );  CREATE TABLE Customer(  C\_Id int primary key,  C\_Name Varchar(50) Not Null,  Reservation\_no int,  C\_Age int ,  C\_Address Varchar(70) Not Null,  C\_contact int,  C\_cin\_time int,  C\_cout\_t int,  foreign key(Reservation\_no) references Reservation(Reservation\_no)  );  alter table hotel rename hotel\_info;  insert into hotel\_info values("marriot",1234,"Pune",3456,5);  insert into hotel\_info values("The Plaza",2345,"New York ",4567,7);  insert into hotel\_info values("Claridge's",3456,"London",5678,7);  insert into hotel\_info values("Raffles",5678,"Singapore",6789,8);  insert into hotel\_info values("Taj Mahal Palace",6789,"Mumbai ",7890 ,9);  insert into hotel\_info values("Beverly Hills Hotel",8970,"Los Angeles",8907,2);  insert into employee values("Adwait Purao","Permanent",1,1234,"Purao","Adwait","Kurla","Mumbai",7304671744,10000);  insert into employee values("Ram Kumar","Permanent",2,1234,"Kumar","Ram","Kalina","Mumbai",12346,20000);  insert into employee values("Akshay Kumar","Temporary",3,3456,"Kumar","Akshay","Ram chowk","Ramgad",12347,30000);  insert into employee values("Ranbir Kapoor","Permanent",4,2345,"Kapoor","Ranbir","Roopnagar","Agra",12348,40000);  insert into employee values("Angelina Jolie","Permanent",5,8970,"Jolie","Angelina","Beverly Hills","Los Angeles",12349,50000);  alter table customer modify C\_cin\_time time ;  alter table customer modify C\_cout\_t time ;  alter table reservation modify R\_intime time ;  alter table reservation modify R\_outtime time ;  insert into reservation values(1,"12:56:23","16:56:23",1000,12,1234);  insert into reservation values(2,"13:54:43","19:26:13",2000,13,1235);  insert into reservation values(3,"11:24:41","20:55:53",1500,14,1236);  insert into reservation values(4,"22:21:45","16:25:33",2500,15,1237);  insert into customer values(1234,"Sam Vaz",1,34,"Ghatkopar",123456,"12:56:23","16:56:23");  insert into customer values(1235,"Ram Sharma",2,44,"Ghansoli",123457,"13:54:43","19:26:13");  insert into customer values(1236,"Sachin Tendulkar",3,50,"Colaba",123458,"11:24:41","20:55:53");  insert into customer values(1237,"Virat Kohli",4,30,"Dadar",123459,"22:21:45","16:25:33");  insert into room values(12,1,1000,"Basic",1234);  insert into room values(13,0,2000,"Deluxe",2345);  insert into room values(14,1,1500,"Suite",5678);  insert into room values(15,0,2500," Luxury Suite",6789);  select \* from hotel\_info;  select \* from employee;  select \* from room;  select \* from reservation;  select \* from customer;  Output:  1)Table hotel\_info    2)Table Employee    3)Table Room    4)Table Reservation    5)Table Customer |
| **Conclusion**  In this experiment, I learned to create tables on mySQL software . we could create table using CREATE keyword and we could insert rows using INSERT keyword. We also learned about foreign key  and primary key. We also learnt about keywords like not null , default and check .I also learned about different types of data types and used them in my code. | |