Experiment No.3
Create a database using Data Definition Language(DDL) and apply integrity constraints for the specified system
Name Of Student:-Bhagyashri Kaleni Sutar
Roll no:-75
Date of Performance:
Date of Submission:

Aim :- Write a query to create tables for each relation in the relational schema of experiment no.2. Apply drop and alter commands on those tables.

Objective :- To learn commands of Data Definition Language(DDL) to create and define databases, and also learn to apply integrity constraints for the specified system.

Theory:

DDL Commands & Syntax :-

Data Definition Language(DDL) is a subset of SQL and a part of DBMS(Database Management System). DDL consist of Commands to commands like CREATE, ALTER, TRUNCATE and DROP. These commands are used to create or modify the tables in SQL.

DDL Commands :

In this section, We will cover the following DDL commands as follows.

1. Create
2. Alter
3. truncate
4. drop
5. Rename

CREATE :

This command is used to create a new table in SQL. The user has to give information like table name, column names, and their data types.

Syntax –CREATE TABLE table_name

(

column_1 datatype,

column_2 datatype,

column_3 datatype,

....

);

ALTER :

This command is used to add, delete or change columns in the existing table. The user needs

to know the existing table name and can add, delete or modify tasks easily.

Syntax –

ALTER TABLE table_name

ADD column_name datatype;

TRUNCATE :

This command is used to remove all rows from the table, but the structure of the table still

exists.

Syntax –

TRUNCATE TABLE table_name;

DROP :

This command is used to remove an existing table along with its structure from the Database.

Syntax –

DROP TABLE table_name;

RENAME :

It is possible to change name of table with or without data in it using simple RENAME

command.We can rename any table object at any point of time.

Syntax –

RENAME TABLE <Table Name> To <New_Table_Name>;

Implementation:

```
create database pqr1 ;

use pqr;


create table login(login_id int,login_username varchar(50),login_password
varchar(40));

insert into login values(001,'yash012','yash678');

insert into login values(002,'neha056','neha067');

insert into login values(003,'rohan012','rohan432');

insert into login values(004,'rahul123','rahul90267');

select * from login;


create table users(user_id int,user_name varchar(40),user_mob int,user_email
varchar(30),user_address varchar(60));

insert into users
values(1,'Yash',1111111111,'yash012@gmail.com','at.post,nerul,solapur');

insert into users
values(2,'Neha',222222222,'neha34@gmail.com','bandra,mumbai');

insert into users
values(1,'Rohan',333333333,'rohan012@gmail.com','andheri,mumbai');

insert into users
values(1,'Rahul',444444444,'rahul012@gmail.com','saipul,solapur');

select * from users;


create table train(train_id varchar(10),train_num int,train_name
varchar(30),trani_ticket varchar(20),train_type varchar(30));

insert into train values('T243',00127736,'Sidheshwar Express','s4245','AC');

insert into train values('T2763',00124436,'Sidheshwar Express','s4345','AC');

insert into train values('T383',0012323736,'Sidheshwar Express','s5245','AC');

insert into train values('T847',00112736,'Sidheshwar Express','s47685','AC');

insert into train values('T20487',027987736,'Sidheshwar Express','s8745','AC');
```

create table Customer4(Cus_Id int,Login_Id varchar(100),Cus_name varchar(50),Mobile_num int,Address varchar(100));

Alter table Customer4 add primary key(Cus_Id);

Insert into Customer4 values(01,42313,"Rohan",1234567890,"Shastri nagar vasai west");

Insert into Customer4 values(02,42314,"Nisha",1234567891,"Budhvar peth solapur");

Insert into Customer4 values(03,42315,"Nikita",1234567892,"karanchok akkalkot");

Insert into Customer4 values(04,42316,"Arohi",1234567893,"gandhi nagar delhi");

Insert into Customer4 values(05,42317,"Nisha",1234567894,"bandra mumbai");

select * from Customer4;

Alter table Customer4 add Email varchar(50);

alter table Customer4 drop column Email;

Rename table Customer4 to Customer5;

create table Customer_payments(pay_id int,pay_cus_id int,primary key(pay_id),pay_amount float);

alter table Customer_payments drop column pay_date;

insert into Customer_payments values(1,021,4500);

insert into Customer_payments values(2,022,4500);

insert into Customer_payments values(3,03,5500);

insert into Customer_payments values(4,04,4000);

insert into Customer_payments values(5,05,4200);

select * from Customer_payments;

Conclusion:

1. Explain DDL commands with syntax.

Ans:- **1. CREATE**

The CREATE command is used to create new tables, databases, views, or other database objects.

Example: Creating a new table

```
CREATE TABLE Employees (
   EmployeeID INT PRIMARY KEY,
   FirstName VARCHAR(50),
   LastName VARCHAR(50),
   HireDate DATE
);
```

2. ALTER

The ALTER command is used to modify an existing database object, such as a table, by adding, deleting, or modifying columns.

Example: Adding a new column to an existing table

```
ALTER TABLE Employees
ADD Email VARCHAR(100);
```

3. DROP

DROP command is used to delete an entire database object, such as a table, database, or index. It removes the object and all the data contained in it.

Example: Deleting an existing table:

```
sql
DROP TABLE Employees;
```

4. TRUNCATE

The TRUNCATE command removes all rows from a table, but the table structure (schema) remains intact. It is faster than DELETE because it does not log individual row deletions.

Example: Removing all data from a table:
sql
TRUNCATE TABLE Employees;

5.RENAME

The RENAME command is used to change the name of a database object like a table or column.

Example: Renaming a table

RENAME TABLE Employees TO Staff

2. Show results of operations performed.

1.Login:-

login_id	login_username	login_password
1	yash012	yash678
2	neha056	neha067
3	rohan012	rohan432
4	rahul123	rahul90267
5	pooja34	pooja1234

2.User:-

user_id	user_name	user_mob	user_email
1	Yash	1111111111	yash012@gmail.co
1	Yash	1111111111	yash012@gmail.co
2	Neha	222222222	neha34@gmail.com
2	Neha	222222222	neha34@gmail.com
1	Rohan	333333333	rohan012@gmail.c
1	Rahul	444444444	rahul012@gmail.co

3.Train

train_id	train_num	train_name	trani_ticket	train_type
T243	127736	Sidheshwar Express	s4245	AC
T243	127736	Sidheshwar Express	s4245	AC
T243	127736	Sidheshwar Express	s4245	AC
T243	127736	Sidheshwar Express	s4245	AC
T2763	124436	Sidheshwar Express	s4345	AC
T383	12323736	Sidheshwar Express	s5245	AC
T847	112736	Sidheshwar Express	s47685	AC
T20487	27987736	Sidheshwar Express	s8745	AC

4.Customer4:-

Cus_Id	Login_Id	Cus_name	Mobile_num	Address
1	42313	Rohan	1234567890	Shastri nagar vasai west
2	42314	Nisha	1234567891	Budhvar peth solapur
3	42315	Nikita	1234567892	karanchok akkalkot
4	42316	Arohi	1234567893	gandhi nagar delhi
5	42317	Nisha	1234567894	bandra mumbai
NULL	NULL	NULL	NULL	NULL

5.payment:-

pay_id	pay_cus_id	pay_amount
1	21	4500
2	22	4500
3	3	5500
4	4	4000
5	5	4200
NULL	NULL	NULL