EXPERIMENT-2

AIM: Examples on DDL Commands. CREATE, ALTER DROP,TRUNCATE

a table

CREATE:

The CREATE DATABASE statement is used to create a new SQL database

Creation of database:

Syntax:

create database database_name;

CREATION OF COMPANY DATABASE:

Mysql > create database company;

Query OK, 1 row affected (0.00 sec)

Mysql> use company;

Database changed

CREATION OF TABLE:

The CREATE TABLE statement is used to create a new table in a database

Syntax:

create table table_name (column_1 datatype(size),column_2 datatype(size),….);

Creation of EMPLOYEE Table:

mysql> create table EMPLOYEE_91(Fname varchar(15),Minit char(1),Lname varchar(15),Ssn int,Bdate date,Address varchar(30),Sex char(1),Salary decimal(10,2),Super_ssn int,Dno int,primary key(Ssn));

Query OK, 0 rows affected (0.39 sec)

mysql> desc EMPLOYEE_91;

Field	Type	Null	Key	Default	Extra
Fname	varchar(15)	YES		NULL	
Minit	char(1)	YES		NULL	
Lname	varchar(15)	YES		NULL	
Ssn	int	NO	PRI	NULL	
Bdate	date	YES		NULL	
Address	varchar(30)	YES		NULL	
Sex	char(1)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	
Super_ssn	int	YES	MUL	NULL	
Dno	int	YES	MUL	NULL	

Creation of DEPARTMENT Table:

Mysql > create table DEPARTMENT_91(Dname varchar(15),Dnumber int, Mgr_ssn int,Mgr_start_date date,primary key(Dnumber));

Query OK, 0 rows affected (0.28 sec)

mysql>desc DEPARTMENT_91;

Field	Type	Null	Key	Default	Extra
Dname	varchar(15)	YES		NULL	
Dnumber	int	NO	PRI	NULL	
Mgr_ssn	int	YES	MUL	NULL	
Mgr_start_date	date	YES		NULL	

INSERT:

The INSERT INTO statement is used to insert new records in a table

Syntax:

insert into table_name (col_1,col_2,..,col_n) values (data_1,data_2,..,data_n);

INSERTION INTO EMPLOYEE TABLE:

mysql> insert into EMPLOYEE_91 values('John','B','Smith',123456789,'1965-01-09','731 Fondren,Houston,TX','M',30000,333445555,5),

('Franklin','T','Wong',333445555,'1965-12-08','638 Voss,Houston,TX','M',40000,888665555,5),

('Alicia','J','Zelaya',999887777,'1968-01-19','3321 Castle,Spring,TX','F',25000,987654321,4),

('Jennifer','S','Wallace',987654321,'1941-06-20','291 Berry,Bellaire,TX','F',43000,888665555,4),

('Ramesh','K','Narayan',666884444,'1962-09-15','975 Fire Oak,Humble,TX','M',38000,333445555,5),

('Joyce','A','English',453453453,'1972-07-31','5631 Rice,Houston,TX','F',25000,333445555,5),

('James','E','Bong',888665555,'1937-11-10','450 Stone,Houston,TX','M',55000,NULL,1),

('Ahmad','V','Jabbar',987987987,'1969-03-29','980 Dallas,Houston,TX','M',25000,987654321,4);

Fname	Minit	Lname	Ssn	Bdate	Address	Sex	Salary	Super_ssn	Dno
John	B	Smith	123456789	1965-01-09	731 Fondren,Houston,TX	M	33000.00	333445555	5
Franklin	T	Wong	333445555	1965-12-08	638 Voss,Houston,TX	M	38500.00	888665555	5
Ramesh	K	Narayan	666884444	1962-09-15	975 Fire Oak,Humble,TX	M	41800.00	333445555	5
James	E	Bong	888665555	1937-11-10	450 Stone,Houston,TX	M	60500.00	NULL	1
Jennifer	S	Wallace	987654321	1941-06-20	291 Berry,Bellaire,TX	F	47300.00	888665555	4
Ahmad	V	Jabbar	987987987	1969-03-29	980 Dallas,Houston,TX	M	27500.00	987654321	4
Alicia	J	Zelaya	999887777	1968-01-19	3321 Castle,Spring,TX	F	27500.00	987654321	4
NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

INSERTION INTO DEPARTMENT TABLE:

Mysql> insert into DEPARTMENT_91 values('Reasearch',5,333445555,'1988-05-22'),('Adminstration',4,987654321,'1995-01-01'),('Headquarters',1,888665555,'1981-06-19');

Dname	Dnumber	Mgr_ssn	Mgr_start_date
Headquarters	1	888665555	1981-06-19
Adminstration	4	987654321	1995-01-01
Reasearch	5	333445555	1988-05-22
NULL	NULL	NULL	NULL

ALTER:

The ALTER TABLE statement is used to add, delete ,or modify columns in an existing table

1. **Adding a column to table:**

    Syntax:

    alter table table_name add column col_1 datatype(size);

    Example:

    Add column phone number of type varchar and size 10 to employee:

    mysql>alter table employee_91 add column ph_no int(10);

Field	Type	Null	Key	Default	Extra
▶ Fname	varchar(15)	YES		NULL	
Minit	char(1)	YES		NULL	
Lname	varchar(15)	YES		NULL	
Ssn	int	NO	PRI	NULL	
Bdate	date	YES		NULL	
Address	varchar(30)	YES		NULL	
Sex	char(1)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	
Super_ssn	int	YES	MUL	NULL	
Dno	int	YES	MUL	NULL	
phone_no	int	YES		NULL	

2. **Drop a column from table:**

    Syntax:

    alter table table_name drop column column_name;

    Example:

    Mysql>alter table employee_91 drop column ph_no;

Field	Type	Null	Key	Default	Extra
▶ Fname	varchar(15)	YES		NULL	
Minit	char(1)	YES		NULL	
Lname	varchar(15)	YES		NULL	
Ssn	int	NO	PRI	NULL	
Bdate	date	YES		NULL	
Address	varchar(30)	YES		NULL	
Sex	char(1)	YES		NULL	
Salary	decimal(10,2)	YES		NULL	
Super_ssn	int	YES	MUL	NULL	
Dno	int	YES	MUL	NULL	

3. **Modifying the datatypes from table:**

    Syntax:

    alter table table_name modify column column_name datatype(size);

    Example:

    mysql> ALTER TABLE employee_91 modify COLUMN Address varchar(40);

	Field	Type	Null	Key	Default	Extra
▶	Fname	varchar(15)	YES		NULL	
	Minit	char(1)	YES		NULL	
	Lname	varchar(15)	YES		NULL	
	Ssn	int	NO	PRI	NULL	
	Bdate	date	YES		NULL	
	Address	varchar(40)	YES		NULL	
	Sex	char(1)	YES		NULL	
	Salary	decimal(10,2)	YES		NULL	
	Super_ssn	int	YES	MUL	NULL	
	Dno	int	YES	MUL	NULL	

4. Adding foreign keys:

Syntax:

alter table table_name add foreign key (column_name) references table_name(column_name);

Example:

mysql>alter table employee_91 add foreign key(dno) references department(dnumber);

	Field	Type	Null	Key	Default	Extra
▶	Fname	varchar(15)	YES		NULL	
	Minit	char(1)	YES		NULL	
	Lname	varchar(15)	YES		NULL	
	Ssn	int	NO	PRI	NULL	
	Bdate	date	YES		NULL	
	Address	varchar(30)	YES		NULL	
	Sex	char(1)	YES		NULL	
	Salary	decimal(10,2)	YES		NULL	
	Super_ssn	int	YES	MUL	NULL	
	Dno	int	YES	MUL	NULL	

DROP:

The is used to delete the structure of a table. It permanently deletes the records in the table

Syntax:

drop table table_name:

Example:

Drop table department_91:

Mysql >drop table department_91;

TRUNCATE:

The command will remove the data permanently. But structure will not be removed

Syntax:

truncate table table_name;

Example:

Truncate table department_91;

Desc department_91;

	Field	Type	Null	Key	Default	Extra
▶	Dname	varchar(15)	YES		NULL	
	Dnumber	int	NO	PRI	NULL	
	Mgr_ssn	int	YES	MUL	NULL	
	Mgr_start_date	date	YES		NULL	

Select *from department_91;

	Dname	Dnumber	Mgr_ssn	Mgr_start_date
*	NULL	NULL	NULL	NULL