Generating design of other traditional Data base model

Task No: 3
Date: 05-08-25

Aim: Implementation of DDL and DML commands of SQL and DML commands of SQL with suitable examples.

DDL commands (Data Definition language)

Definition: DDL commands are used to define, modify, or delete the structure of database objects such as tables.

1. create Table:

Definition: Used to create a new table in the database

sql
create table student (std-id int, std-name

Query:
sql
Create table employee (emp-id int, emp-name Varchar(
emp-ph-no varchar(10), emp-add Varchar(100),
emp-dep Varchar(50));

output:
Table created.

2.) Describe or desc

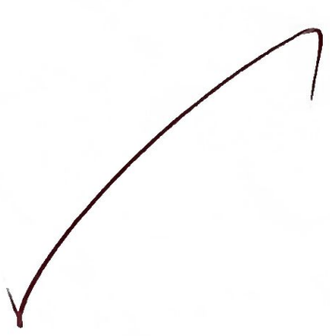
Definition Displays the structure of a table (colum names and data types.

Query
sql
DESC employee.

alter

output table :

Name	Type
EMP-ID	Number (38)
EMP-NAME	Varchar(50)
EMP-PH-NO	Varchar(10)
EMP-ADD	Varchar 2(100)
EMP-salary	Number (38)



Output :-

Name	TYPE
EMP-ID	NUMBER(38)
EMP-NAME	VARCHAR(50)
EMP-PH-NO	VARCHAR2(10)
EMP-ADD	VARCHAR2(100)
~~EMP-DEP~~	~~VARCHAR2(50)~~

DROP Table

Definition: Deletes the entire table structure and all its data.

Query:

```
SQL
Drop Table employee;
```

Output:-

Table employee dropped successfully

4. ALTER TABLE

Definition: Used to add, delete, or modify columns in an existing table.

query

```
SQL
Alter Table employee sal ADD salary;
```

Output:-

Coloumn salary added to employee;

II DML COMMANDS (Data Manipulation Language)

Definition: DML commands are used to manage and manipulate data inside database tables.

1. Insert INTO

Definition: Inserts new rows into a table

Query:

```
sql
Insert intoemployee (310,'hari','12345678?','rajamundry',
                     'coding', '30,000);
Insert INTO employee (340, 'hema', '3245678211', 'kakinada',
                     'coding', 'kaking '40,000');
Insert Info employee ( 210, 'Lakshmi', '3456789123',
                     'Nellore', 'coding', '50000');
```

output :-

3 rows inserted into employee table.

Select :-

Definition :- Retrives data from one or more tables

query:

```
sql
Select * from employee;
```

output

Employee :ID	Emp-Name	Emp-Ph-no	Emp-add	Emp
310	hari	123456789	rajamundry	30
340	hema	3245678211	kakinada	40
210	Lakshmi	3456789123	Nellore	50

update:

Definition:- Modifies existing data in a table

sql

update employee set employee_name = 'hema'
where emp_name = 'sai'

output:-

1 row update

After update:

Sql

Select * from employee

Emp-ID	Emp-name	Emp-ph-no	Emp-add	Emp-sa
310	hari	1234567892	rajamundry	30000
340	sai	3245678211	kakinada	40000
210	lakshmi	3456789126	nellore	50000

Delete:

Definition:- Deletes one or more rows from a table.

Query:

Def sql

Delete from employee where EmpID = 310

Output:

1 row deleted.

After delete :

sql
select * from employee

emp-ID	emp-name	emp-ph-no	emp-add	emp-salary
340	sai	3245678211	kakinada	40,000
210	lakshmi	3456789123	nellore	50,000

5) select with where clause

Definition :- Retrieves specific records that satisfy the condition.

query :-

sql
select * from employee where emp-name = 'sai';

output :-

emp-ID	emp-name	em-ph-no	emp-add	emp-salary
340	sai	3245678211	kakinada	40000

Result :- Thus the task to create DDL ~~delete~~ and DML after the commands & table are executed successfully.

VEL TECH	
EX NO.	2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	2
RECORD (5)	-
TOTAL (20)	12
SIGN WITH DATE	

6/8/25

Date:- 22-08-25

Task NO:-2 DDL AND DML COMMANDS WITH CONSTRAINTS

Date:-

Aim:- Implementation of DDL and DML commands with constraints

DDL commands

1.1 Create table

Definition:-

Used to create a new table in the database

Query:-

sql

```
create table customer (
    customerID: Primary key,
    name varchar (100) NOT NULL,
    address VARCHAR (200),
    );
create table customer credit card(
credit card Number VARCHAR (20) PRIMARY KEY,
expiry-date DATE NOT NULL,
FOREIGN KEY (customer ID) REFERENCES customer
);                                    (customer ID)
create table Branch (
        branch ID INT PRIMARY KEY,
        branch Name VARCHAR (100) NOT NULL,
        location VARCHAR (100),
        ifsc-code VARCHAR (20) UNIQUE
    );
create table Bankerinfo(
    banker ID INT PRIMARY KEY,
    bankerName VARCHAR (100) NOT NULL,
    bankeremail VARCHAR (100) UNIQUE
```

desc customer;

Name	NULL	TYPE
CUSTOMER ID	NOT NULL	NUMBER (38)
NAME	NOT NULL	VARCHAR 2 (100)
ADDRESS		VARCHAR 2 (200)

desc customer credit card;

Name	TYPE	NULL
CREDIT CARD NUMBER	VARCHAR (20)	NOT NULL
EXPIRY-DATE	DATE	NOT NULL
CUSTOMER ID	NUMBER (38)	

desc Branch;

Name	NULL	TYPE
BRANCHID	NOT NULL	NUMBER (38)
BRANCH NAME	NOT NULL	VARCHAR 2 (100)
LOCATION		VARCHAR 2 (100)
IFSC-CODE		VARCHAR (20)

desc Banker info;

Name	NULL	TYPE
BANKERID	NOT NULL	NUMBER (38)
BANKER NAME	NOT NULL	VARCHAR 2 (100)
BANKER MAIL		VARCHAR 2 (100)
BRANCH ID		NUMBER (38)

FOREIGN KEY (branch ID) REFERENCES Branch (BranchID)
);

Create table loan(
loan Number INT PRIMARY KEY,
FOREIGN KEY(customerID) REFERENCES customer(customerID)
FOREIGN KEY (branchID) REFERENCES Branch (branchID)
);

Create table Account(
account Number INT PRIMARY KEY
balance INT,
category VARCHAR (50),
FOREIGN KEY (customer ID) REFERENCES customer (customerID)
FOREIGN KEY (branchID) REFERENCES Branch(branchID)
);

1.2 Alter Table

Alter table customer add ph-no VARCHAR (10);

1.3 Truncate Table

Truncate table loan

Result : All rows are removed from loan table, structure remains.

1.4 Rename Table

Rename Table customer to customers.

2. DML Commands

2.1 Insert data

insert into customers (customer ID, name, address, ph-no
values (238, 'Ram', 'chennai', '83456789');

insert into customer credit card (credit card number,
expiry date)
values ('8329 9258 6234', 12-MAR-2030);

desc loan;

Name	NULL	TYPE
LOAN-NUMBER	NOT NULL	NUMBER (38)
AMOUNT		NUMBER (38)
CUSTOMER-ID		NUMBER(38)
Branch-ID		NUMBER(38)

desc-Account;

Name	NULL	TYPE
ACCOUNT-NUMBER	NOT NULL	NUMBER (38)
BALANCE		NUMBER(38)
CATEGORY		VARCHAR2(50)
CUSTOMER-ID		NUMBER(38)
BRANCH ID		NUMBER (38)

1-2 desc ~~Customer~~; Alter

Name	NULL	TYPE
CUSTOMERID	NOT NULL	NUMBER (38)
NAME	NOT NULL	VARCHAR2(100)
ADDRESS		VARCHAR2(100)
PH-NO		VARCHAR2(10)

1.4 Rename table

Table renamed

```
insert into Branch (branch_ID, branch_Name, location, ifsc_code)
values (4590, 'chennaibranch', 'chennai', '8925 4596 0311');
insert into Banker info (bankerID, banker_Name, banker_email)
values (7896, 'chandu', 'chandu41@gmail.com');
insert into loan (loan number, amount) values
                                    (8996, 50000);
insert into loan (loan number, amount) values
        (8996, 50000);
insert into Account (account number, balance, category)
values (5985423108, 100000, 'savings');
```

2.2 Update Data

```
Update customers set Name = 'Vinay' where customerID = 238;
```

Result :- ~~Name of Updated to Vinay~~

2.3 Delete data

```
Delete from Banker info where bankerID = 7896;
```

2.4 Select Data

```
Select name, ph-no from customers;
```

Insert customer

customer-ID	Name	Address	Ph-no
238	Ram	chennai	83456789

Insert - credit card number

credit card number	expiry-date	customer-ID
832992586234	12-MAR-2080	238

Insert - Branch ID

Branch ID	branchname	location	ifsc code
4590	chennai Branch	chennai	8925459

Insert Banker-Info

BankerIDInfo	banker name	banker email	Branch ID
7896	chandu	chandu@gmail.com	4590

Insert Banker Loan

loannumber	amount	customer-ID	Branch-ID
8996	50000	238	4590

Insert - accnumber

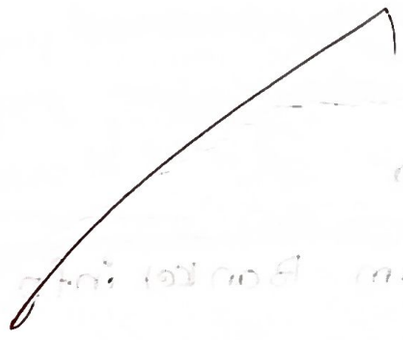
account number	Balance	category
9985423108	10000	Savings

Update

customerID	Name	Address	Ph-no
288	Vinay	Chennai	83456789

Delete :-

BankerID	Bankername	banker Email	BranchID
7897	nandhy	nandhu72@gmail.com	4540



Result:- Thus, the Implementation of DDL and DML commands & constraints are executed successfully

VEL TECH	
EX NO.	2.2
PERFORMANCE (5)	5
RESULT AND ANALYSIS (5)	5
VIVA VOCE (5)	5
RECORD (5)	—
TOTAL (20)	15
SIGN WITH DATE	M 12/8/25