Date 39/9/25.

Task-No35 Douting Folin Quouses, Equivalent, ANDLOR Recursive Quous.

Am: To implement and execute Foin qualies, equivalent querles and accursive queries.

Types of Foins in SQL!

1. Inner John: Returns records that have matching values in both tables.

syntax: select column-name (s) from table 1 INNER FOIR table 2 ON table 1- column-name = table 2. column-name;

2. <u>left outer join</u>? Retroms all records from the left table, and the matched one could from the right table.

Syntaxis select column-rame (s) From table 1 (LEFT JODN. table 2 on table 1. Column-name = table 2. Column-Name;

3. Right outer join? Return all records from the right table, and the matched records from the left table.

syntax 8 select column-name (s) From table 1 RIAHT JOIN table 2 on table 1. Column-name = table 2. Column-name.

4. Full outer join 8. Returns all neconds when there is a match in either left on right table.

syntaxi select column_name (5) from table 1 Full outer join table 2 ON table 1. Column_name = table 2. Column-name,

1. Join Scories

coneate Tables:

coreate table customer (.

customer ID int primary key, name vaichar (50),

address voictor (100) ofference by ID INT NULL,

Foreign Key (reference ID) Reference customer (customer ID).

);

```
Coneate table bank - account (
    account - number int primary key;
     customer ID Int;
     balance int,
     category varchar (50),
     Loneign Key (austomer ID) reference customer (customer ID)
 1)
 coneate table branch (
   boranch ID int primary key,
   branch name var char (50),
);
2. Insort Somple data
 insort into customer (customer ID, name, address) values
 (101, (Ram Kumari, 'chennai');
 insert into austomer (customer ID, name, address) values
 (102, (Vijay Rao', 'thydera bad');
insert into customer ( customer ID, name, address) values
(103, 'vasu Reddy', 'vizag');
Prisoit into customer (austomer ID, name, address) values
(104, 'Vinay Kurrer', 'chennai');
Insert into customer (customer ID, name, address) values
 (105, 'Rohit', 'Delhi');
insert into bank-account (adcount-number austomer ID,
 balance, category) values (1001, 101, 15000, 'saving');
Prisent Porto bom K- account (account - number, customer ID,
 balonce, category) values (1002, 102, 0, 'consent');
Present Porto bonk-account (account-number, austomer ID,
 balance, ca tegory) values (1003, 103, 5000, 'savings');
 insert into bank-account (account - number, austerneizz,
 balance, category) values (1004, 105, 2000, (cussent');
```

insort into branch (branch ID, branch rame) values

(1, 'chenna' Branch');

insort into branch (branch ID, branch rame) values

(2, 'thyderabad Branch');

insort into branch (branch ID, branch rame) values

(3, 'Vizag Branch');

3. Foin Queries ?

a) Inner Foin:

Buey! - select c. name. b. account-number from customer c. Inner Join bank-account b ON c. customer ID= b. customer ID; Output:

Name	account-number.
Ram Kumar	1001
Vijay Rao.	1002
Vasu Redoly.	1008
Viray Kurnar	1004.

b) Left Join ?

Buly: select C. Name, b. a cloumt - number from customer clost Foin bomk - account bon C. customer ID = b. customer ID;

Output &

Name acc	count-number
Ramkumal	100 (
visay Rao.	1002
Vasu Reddy.	1003
Vinay Kurnal	1004
Robert s harma	1005

c) Right Join:

Quely: select c. name, b. account-number hom customer c Right join bank-account bonc. austomer ID=b. customer D.

output:

Name	account - numbel.
Ram Kumal	1001
Visay Rao.	1002
Vasu Reddy.	8001
Viray Kumar	1004.

d) Full outer Join :

Quely: select c.name, b.account-number from customer c Full outer Join bonk-account bonc austomer ID=b.customers

Name	account-number	
Ram Kumar	1001	
Vijay Rao.	1002	
Valu Reddy	1003	
Vinay Kumas	1004	
Rohit Hasma	1005	

Prosent Porto bornk-account (account-number customer ID),
balance, category) values (1002, 1020, 'carrent');
Prosent Porto bornk account (account-number, customer Do balance, category) values (1003,
Equivalent Quely.

a) Using Join.

Budy ?- select c. name As customed Name, b.account-number As Account number From customer c. Join bank-account bonc. customer ID = 6. customer ID.

output:

customer name	Account number	
Ram Kumai	(00)	
Visay Rao.	1002	
Vasu Reddy.	1003	
Vinay Kumai	1004.	

b) Using sub Quely.

Query: select C. name As oustomer Name, (select b. account - number From book-account b where b. customer ID = C. customer ID limit 1) As Account number Rom customer C;

output :-

customer name	Account number.	
Ram Kumar	1001	
Visay Rag.	1002	
Vasu Reddy	1003	
Viray Kumar	1004	
Rohit Stalma	NULL.	

5. Recursive Quely:

Quely: with Recursive Referral Pterachy as (select customer DD, reference By ID Lorn customer where By ID is

select c. customer ID, c. relevence by ID from customerc. Join Referral Hierarchy on c. referred by ID = sh. customer ID) select * from Referral Hierarchy; Output:

customer DD	referred by ID.
102	101
103	102
104.	103.

VEL TECH	5
PERFORMANCE (8)	5
DESULT AND ANASTON	5
IVIVA VOCE (5)	
RECORD (5)	15
TOTAL TEO	1

Result: the implementation, of sol commands using toins and recursive Queles are executed successfully.