

UT-02

- ② Exist is used to check whether the result of a correlated nested query is empty or not.

Eg:-

```

Select Name,
      from Employee
      where exists (select *
                    from dependent
                    where SSN = ESSN
                    And Name = dependent_name);

```

IN: the comparison operator IN compares a value  $v$  with a set of values  $V$  and evaluates to TRUE if  $v$  is one of the elements  $V$ .

Eg:- Select ~~Name~~ E.Name, E.Lname  
 from Employee  
 where ESSN IN  
     (select ESSN  
       from dependent  
       where ESSN = E.SSN And  
       E.Name = dependent\_name);

① Types of join?

① Inner join :-

② Natural join ( $\bowtie$ ) :-

It joins two Tables based on same attribute

name and ~~the~~ data types. The resulting table will contain all the attributes of both the table.

⑤ Equi join ( $\bowtie$ ): used in relational algebra & SQL, we use mathematical symbol ( $=$ ) to perform equi join.

⑥ Theta join ( $\theta$ ):

It allows you to merge two tables based on the condition represented by theta, it is called as comparison operator.

⑦ Cartesian product ( $\times$ ) / ( $\bowtie$ ) :-

It's a binary operation which is used to combine 2 relations.

Assuming R & S are 2 relations ~~with~~ <sup>with</sup> N & M attributes then the cartesian product  $R \times S$  is written as of

$$Q = \text{Count}(Q) = \text{No. of tuples in } R \times \text{No. of tuples in } S$$

⑧ outer join

① Full outer join ( $\bowtie$ )

The result will contain all the rows from both ~~the~~ Tables 1 & 2.

② Left outer join ( $\bowtie$ ) :- result will contain all the rows from left side of the table & matching rows for the table.

③ Right outer join ( $\bowtie$ ) :-

It gives matching rows and the rows which are right ~~to~~ table but not in left side.