

26.03.2020

Computer Science IInd Year

Subject - "DBMS"

2) Outer Join :-

The outer join operation is an extension of the join operation. It is used to deal with missing information.

Example :-

EMPLOYEE

EMP-NAME	STREET	CITY
Ram	Civil Lines	Mumbai
Shyam	Park Street	Kolkata
Ravi	M.G. Street	Delhi
Hari	Nehru Nagar	Hyderabad.

FACT- WORKERS

EMP-NAME	BRANCH	SALARY
RAM	Infosys	10,000
Shyam	wipro	20,000
Kuber	HCL	30,000
Hari	TCS	50,000

Input :-

EMPLOYEE \bowtie FACT- WORKERS

EMP-NAME	STREET	CITY	BRANCH	SALARY
RAM	Civil Lines	Mumbai	Infosys	10000
Shyam	Park Street	Kolkata	wipro	20,000
Hari	Nehru Nagar	Hyderabad	TCS	50,000

An outer join is basically of three types

- left outer Join
- Right outer Join
- full outer Join

a) left outer join :-

⇒ left outer join contains the set of tuples of all combinations in R and S that are equal on their common attributes names

⇒ In the left outer join, tuples in R have no matching tuples in S

⇒ It is denoted by \bowtie

Example : using the above EMPLOYEE table and FACT - WORKERS table

Input :-

EMPLOYEE \bowtie FACT - WORKERS

Output :-

EMP-NAME	STREET	CITY	BRANCH	SALARY
RAM	Civil line	Mumbai	Infosys	10,00,0
SHYAM	Park Street	Kolkata	wipro	20,000
Hari	Nehru street	Hyderabad	TCS	50,000
RAVI	MG street	delhi	NULL	NULL

- b) Right outer Join :-
- ⇒ Right outer join contains the set of Tables of all combinations in R and S that are equal on their common attributes names.
 - ⇒ In right outer join, tuples in S have no matching tuples in R
 - ⇒ It is denoted by \bowtie

Example :- using the above EMPLOYEE table and FACT-WORKERS Relation

Input

EMPLOYEE

FACT-WORKERS

Output :-

EMP_NAME	BRANCH	SALARY	STREET	CITY
RAM	Infosys	10000	Civil lines	Mumbai
Snyam	wipro	20,000	Park Street	Kolkata
Hari	TCS	50,000	Nehru street	Hyderabad
Kuber	HCL	30,000	NULL	NULL

- c) Full outer Join :-
- ⇒ Full outer join is like a left or right join except that it contains all rows from both tables.
 - ⇒ In full outer join tuples in R that have no matching tuples in S and tuples in S that have no matching tuples in R

in R in their common attribute name.

e) It is denoted by ⋈

Example :- using the above EMPLOYEE table and FACT-WORKERS table

Input :-

EMPLOYEE ⋈ FACT-WORKERS

Output :-

EMP_NAME	STREET	CITY	BRANCH	SALARY
RAM	Civil lines	Mumbai	Infosys	10,000
Shyam	Park Street	Kolkata	wipro	20,000
Heri	Nehru Street	Hyderabad	TCS	50,000
Ravi	MB Street	Delhi	NULL	NULL
Kulker	NULL	NULL	HCL	30,000

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