

NATURAL JOIN Operation

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- A modification of JOIN .
- NATURAL JOIN is denoted by *
- NATURAL JOIN was created to remove the second (superfluous) attribute in an EQUIJOIN condition.
- The standard definition of natural join requires that the two join attributes, or each pair of corresponding join attributes, *have the same name* in both relations
- If this is not the case, a renaming operation is applied first.

Student

Sname	RollNo	Dept
Abraham	CSU19A02	CSE
Aleena	CSU19B06	CSE
Jithin	ECU18B07	ECE
Asha	EEE17A02	EEE

Department

Dname	Did
Computer Science	CSE
Electronics	ECE
Electrical	EEE

(Student ⋈_{student.Dept=Department.Did} Department))

Sname	Roll No	Dept	Dname	Did
Abraham	CSU19A02	CSE	Computer Science	CSE
Aleena	CSU19B06	CSE	Computer Science	CSE
Jithin	ECU18B07	ECE	Electronics	ECE
Asha	EEE17A02	EEE	Electrical	EEE

student * ρ (Dname,Dept) Department

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Abraham	CSU19A02	CSE	Computer Science
Aleena	CSU19B06	CSE	Computer Science
Jithin	ECU18B07	ECE	Electronics
Asha	EEE17A02	EEE	Electrical

$\sigma_{\text{Dname}=\text{"Computer science"}}(\text{student} \bowtie \rho(\text{Dname, Dept}) \text{ Department})$

Sname	Roll No	Dept	Dname
Abraham	CSU19A02	CSE	Computer Science
Aleena	CSU19B06	CSE	Computer Science

$\Pi_{\text{sname}} (\sigma_{\text{Dname}=\text{"Computer science"}} (\text{student} * \rho(\text{Dname}, \text{Dept}) \text{ Department}))$

Sname
Abraham
Aleena