Variations of JOIN

R⋈ <join condition>S

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JOIN

- A general join condition is of the form <condition> AND <condition> AND … AND <condition>
- where each <condition> is of the form Ai θ Bj , Ai is an attribute of R, Bj is an attribute of S, Ai and Bj have the same domain,
- θ (theta) is one of the comparison operators {=, <, ≤, >, ≥, ≠}.
- A JOIN operation with such a general join condition is called a THETA JOIN.
- Tuples whose join attributes are NULL or for which the join condition is FALSE do not appear in the result.
- In that sense, the JOIN operation does not necessarily preserve all of the information in the participating relations, because tuples that do not get combined with matching ones in the other relation do not appear in the result.

Variations of JOIN: The EQUIJOIN and NATURAL JOIN

- The most common use of JOIN involves join conditions with equality comparisons only.
- Such a JOIN, where the only comparison operator used is =, is called an EQUIJOIN.
- Both previous examples were EQUIJOINs.
- Notice that in the result of an EQUIJOIN we always have one or more pairs of attributes that have identical values in every tuple.