Cartesian join (also known as a Cartesian product or cross join)

Replicates each row from the first table with every row from the second table. Creates a join between tables by displaying every possible record combination. Can be created by two methods:

Not including a joining condition in a WHERE clause

Using the JOIN method with the CROSS JOIN keywords

SELECT isbn, title, location, ' ' Count

FROM books, warehouses

ORDER BY location, title

SELECT isbn, title, location, ' ' Count

FROM books CROSS JOIN warehouses

ORDER BY location, title

Equality join (also known as an equijoin, an inner join, or a simple join)

Creates a join by using a commonly named and defined column. Can be created by two methods:

Using the WHERE clause

Using the JOIN method with the NATURAL JOIN, JOIN … ON, or JOIN … USING keywords

SELECT C.firstname, C.lastname, O.order#, B.title

FROM customers C, orders O, orderitems OI, books B

WHERE C.customer# = O.customer#

AND O.order# = OI.order#

AND I.isbn = B.isbn

SELECT C.firstname, C.lastname, O.order#, B.title

FROM customers C

JOIN orders O ON C.customer# = O.customer#

JOIN orderitems OI ON O.order# = OI.order#

JOIN books B ON OI.isbn = B.isbn;

SELECT C.firstname, C.lastname, O.order#, B.title

FROM customers C

JOIN orders O USING (customer#)

JOIN orderitems I USING (order#)

JOIN books B USING (isbn)

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SELECT C.firstname, C.lastname, O.order#, B.title

FROM customers C, orders O, orderitems OI, books B

WHERE C.customer# = O.customer#

AND O.order# = I.order#

AND I.isbn = B.isbn

AND O.shipdate IS NULL

AND B.Title = 'COOKING WITH MUSHROOMS'

ORDER BY O.order#;

SELECT C.firstname, C.lastname, O.order#, B.title

FROM customers C

JOIN orders O ON C.customer# = O.customer#

JOIN orderitems I ON O.order# = I.order#

JOIN books B ON I.isbn = B.isbn

WHERE O.shipdate IS NULL

AND B.Title = 'COOKING WITH MUSHROOMS'

ORDER BY order#

####################################################################

SELECT C.firstname, C.lastname, O.order#, B.title

FROM customers C, orders O, orderitems I, books B

WHERE C.customer# = O.customer#(+)

AND O.order# = I.order#(+)

AND I.isbn = B.isbn(+)

ORDER BY O.order#;

SELECT C.firstname, C.lastname, O.order#, B.title

FROM customers C

LEFT OUTER JOIN orders O ON C.customer# = O.customer#

LEFT OUTER JOIN orderitems OI ON O.order# = OI.order#

LEFT OUTER JOIN books B ON OI.isbn = B.isbn;

ORDER BY O.order#