DBMS_JOIN

코리아IT아카데미 한수지 강사
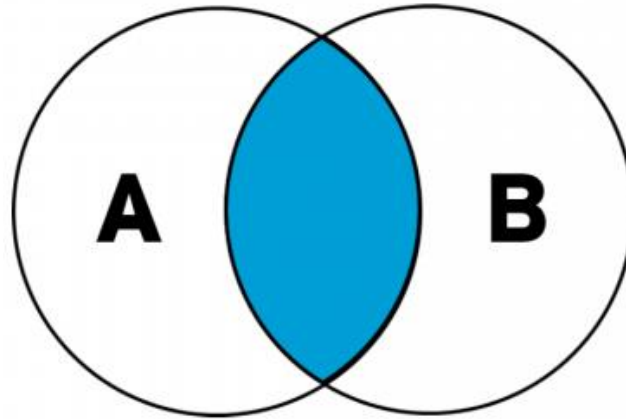
INNERJOIN 〉Example

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie
4	David

Enrollments 테이블

student_id	course
1	Math
2	Science
2	History
3	Math
5	ART

SELECT Students.student_id, Students.name, Enrollments.course
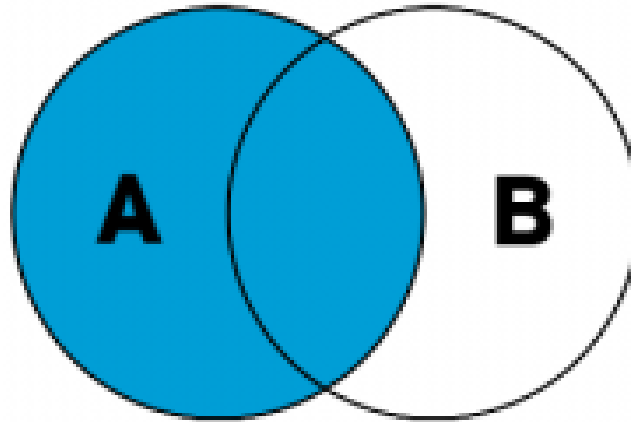
FROM Students

INNER JOIN Enrollments

ON Students.student_id = Enrollments.student_id;

INNERJOIN 〉Result

결과 테이블 :

student_id	name	course
1	Alice	Math
2	Bob	Science
2	Bob	History
3	Charlie	Math

LEFT OUTER JOIN

LEFT OUTER JOIN 〉 Example (**students** 테이블이 **왼쪽**의 **기준**)

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie
4	David

Enrollments 테이블

student_id	course
1	Math
2	Science
2	History
3	Math
5	ART

SELECT Students.student_id, Students.name, Enrollments.course

FROM Students

LEFT OUTER JOIN Enrollments

ON Students.student_id = Enrollments.student_id;

LEFT OUTER JOIN 〉 Result

결과 테이블 :

student_id	name	course
1	Alice	Math
2	Bob	Science
2	Bob	History
3	Charlie	Math
4	David	NULL

LEFT OUTER JOIN 〉Example (**Enrollments** 테이블이 **왼쪽의 기준**)

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie
4	David

Enrollments 테이블

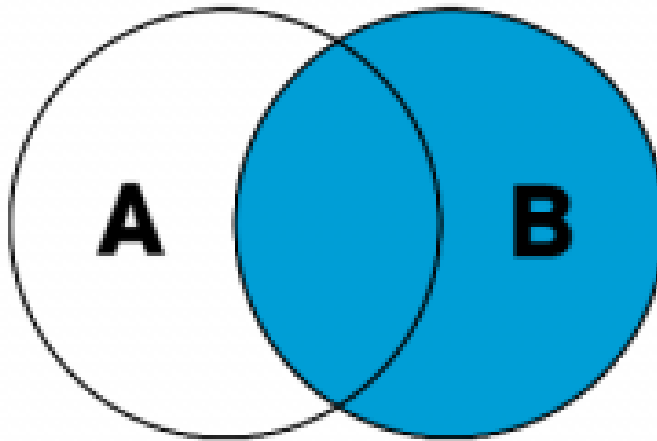| student_id	course
1	Math
2	Science
2	History
3	Math
5	ART

SELECT Enrollments.student_id, Students.name, Enrollments.course

FROM Enrollments

LEFT OUTER JOIN Students

ON Students.student_id = Enrollments.student_id;

LEFT OUTER JOIN 〉 Result

결과 테이블 :

student_id	name	course
1	Alice	Math
2	Bob	Science
2	Bob	History
3	Charlie	Math
5	NULL	ART

RIGHT OUTER JOIN

RIGHT OUTER JOIN 〉Example

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie
4	David

Enrollments 테이블

student_id	course
1	Math
2	Science
2	History
3	Math
5	ART

SELECT Students.student_id, Students.name,Enrollments.course
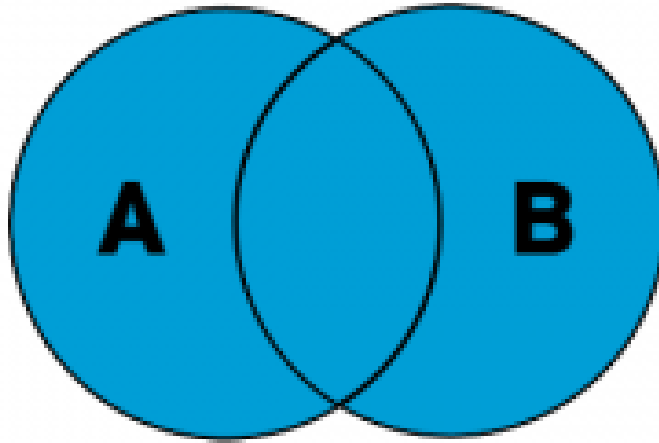
FROM Students

RIGHT OUTER JOIN Enrollments

ON Students.student_id = Enrollments.student_id;

RIGHT OUTER JOIN 〉RESULT

결과 테이블 :

student_id	name	course
1	Alice	Math
2	Bob	Science
2	Bob	History
3	Charlie	Math
5	NULL	ART

FULL OUTER JOIN (UNION)

* MySQL에서는 FULL OUTER JOIN을 제공하지 않고 UNION을 제공한다. *

FULL OUTER JOIN (UNION) 〉 Example

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie
4	David

Enrollments 테이블

student_id	course
1	Math
2	Science
2	History
3	Math
5	ART

SELECT Students.student_id, Students.name, Enrollments.course

FROM Students

FULL OUTER JOIN Enrollments

ON Students.student_id = Enrollments.student_id;

FULL OUTER JOIN(UNION) 〉 Example

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie
4	David

Enrollments 테이블

student_id	course
1	Math
2	Science
2	History
3	Math
5	ART

SELECT Students.student_id, Students.name, Enrollments.course

FROM Students

LEFT OUTER JOIN Enrollments

ON Students.student_id = Enrollments.student_id

UNION

SELECT Students.student_id, Students.name, Enrollments.course
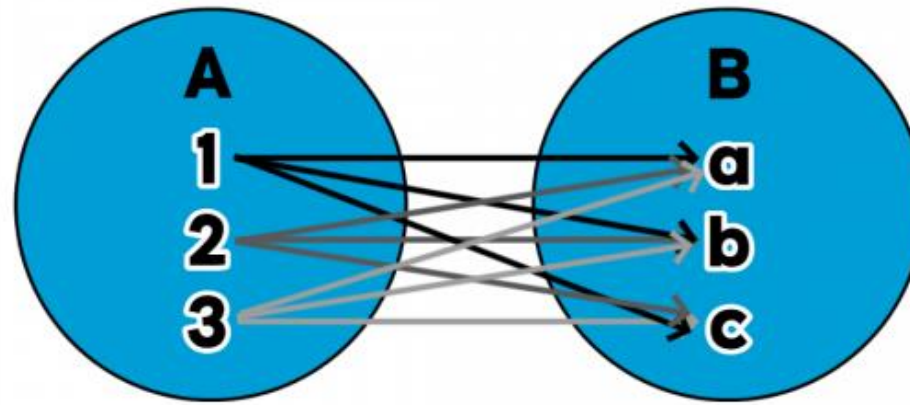
FROM Students

RIGHT OUTER JOIN Enrollments

ON Students.student_id = Enrollments.student_id;

FULL OUTER JOIN (UNION) 〉RESULT

결과 테이블 :

student_id	name	course
1	Alice	Math
2	Bob	Science
2	Bob	History
3	Charlie	Math
4	David	NULL
5	NULL	ART

CROSS JOIN

CROSS JOIN 결과: 전체 행 개수 = 9
3(A 테이블의 행 개수) X 3(B 테이블의 행 개수)

CROSS JOIN 〉 Example

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie

Course 테이블

student_id	course
101	Math
102	Science

SELECT Students.student_id, Students.name, Courses.course

FROM Students

CROSS JOIN Courses;

CROSS JOIN 〉RESULT

결과 테이블 :

student_id	name	course
1	Alice	Math
1	Alice	Science
2	Bob	Math
2	Bob	Science
3	Charlie	Math
3	Charlie	Science

NATURAL JOIN

NATURAL JOIN 〉 Example

student 테이블

student_id	name
1	Alice
2	Bob
3	Charlie

Enrollments 테이블

student_id	course
1	Math
2	Science
3	History

SELECT student_id, name, course

FROM Students

NATURAL JOIN Enrollments;

NATURAL JOIN 〉 RESULT

결과 테이블 :

student_id	name	course
1	Alice	Math
2	Bob	Science
3	Charlie	History

'ON' 절이 없는 내부조인. 같은 열 이름을 가진 두 테이블을 조인할때만 작동