

第二课 本地数据的采集与操作

第八节 数据库多表连接

主 讲: Robin

多表连接

- 查询记录时将多个表中的记录连接(join)并返回结果

- join方式

- 交叉连接 (cross join)
- 内连接 (inner join)
- 外连接 (outer join)

员工信息表

ID	NAME	AGE	ADDRESS	SALARY
1	Paul	32	California	20000.0
2	Allen	25	Texas	15000.0
3	Teddy	23	Norway	20000.0
4	Mark	25	Rich-Mond	65000.0
5	David	27	Texas	85000.0
6	Kim	22	South-Hall	45000.0
7	James	24	Houston	10000.0

- cross join

- 生成两张表的笛卡尔积
- 返回的记录数为两张表的记录数的乘积

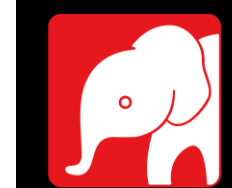
员工部门表

ID	DEPT	EMP_ID
1	IT Billing	1
2	Engineering	2
3	Finance	7

多表连接

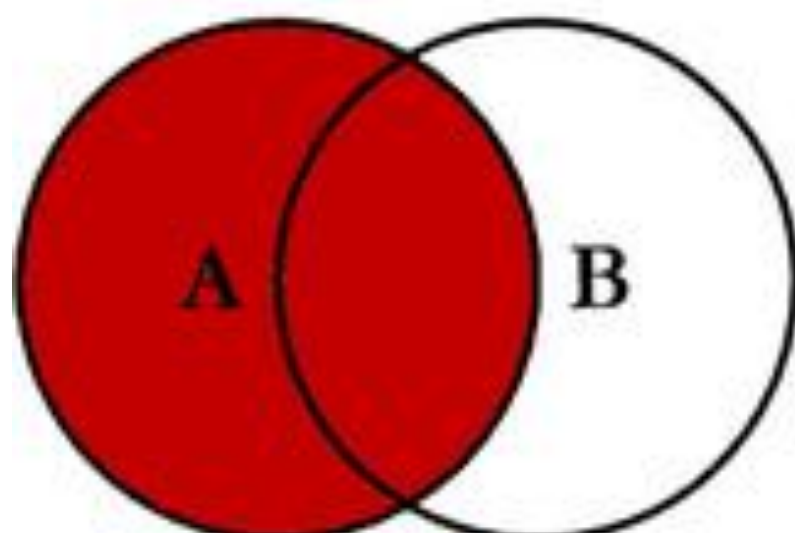
- inner join
 - 生成两张表的交集
 - 返回的记录数为两张表的交集的记录数
- outer join
 - left join (A,B), 返回表A的所有记录, 另外表B中匹配的记录有值, 没有匹配的记录返回null
 - right join (A,B), 返回表B的所有记录, 另外表A中匹配的记录有值, 没有匹配的记录返回null
 - 注意: 目前在sqlite3中不支持右连接, 可考虑交换A、B表操作

多表连接

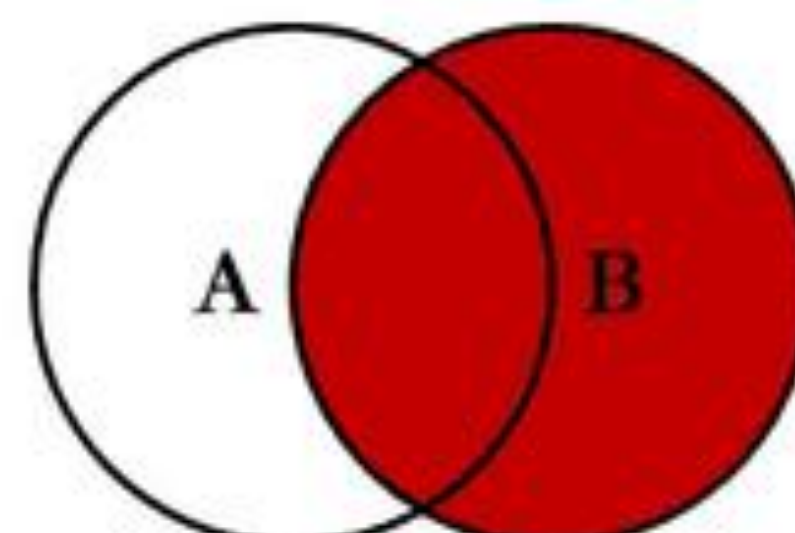


小小学院

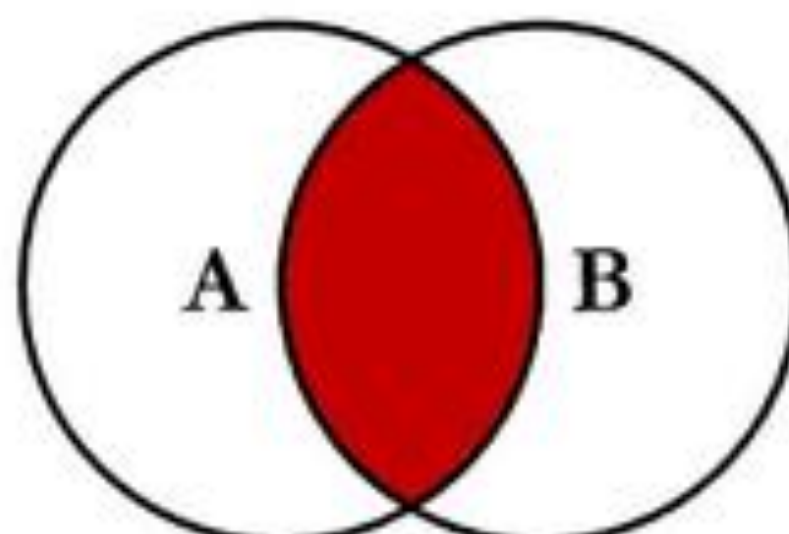
SQL JOINS



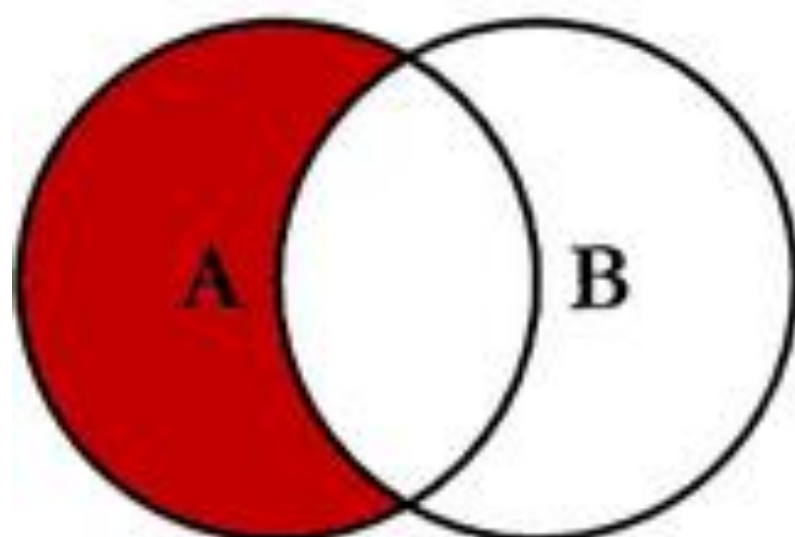
```
SELECT <select_list>  
FROM TableA A  
LEFT JOIN TableB B  
ON A.Key = B.Key
```



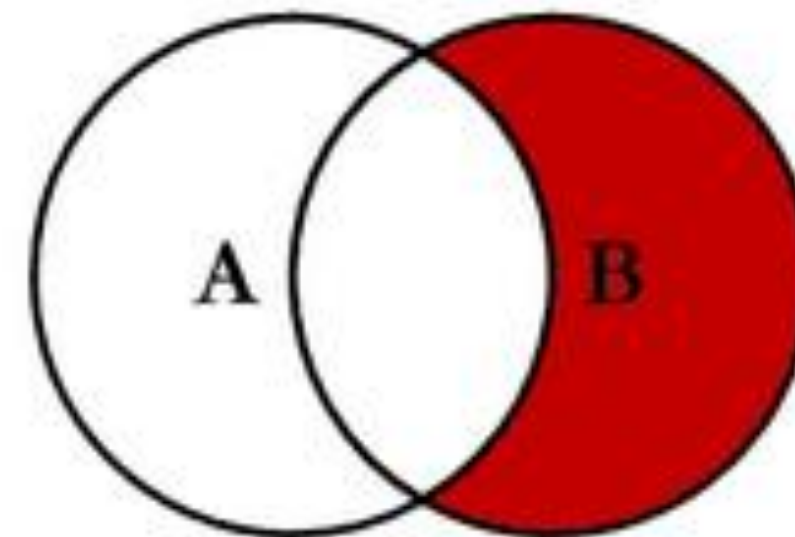
```
SELECT <select_list>  
FROM TableA A  
RIGHT JOIN TableB B  
ON A.Key = B.Key
```



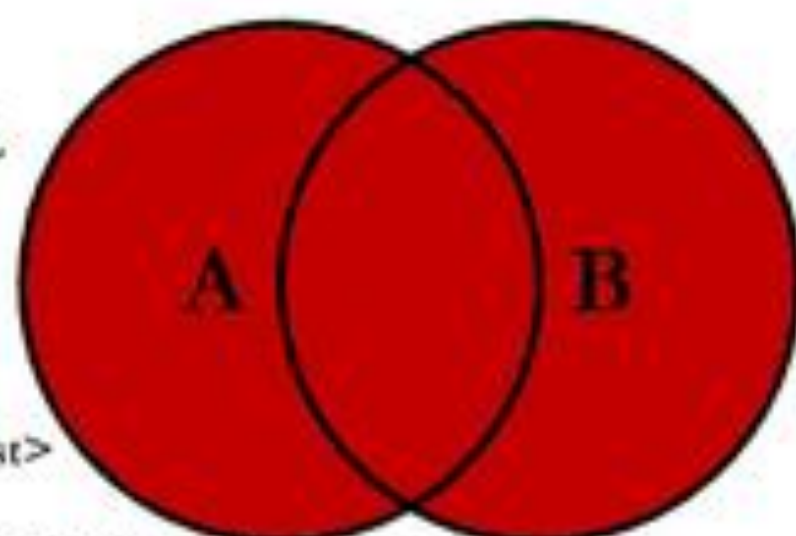
```
SELECT <select_list>  
FROM TableA A  
INNER JOIN TableB B  
ON A.Key = B.Key
```



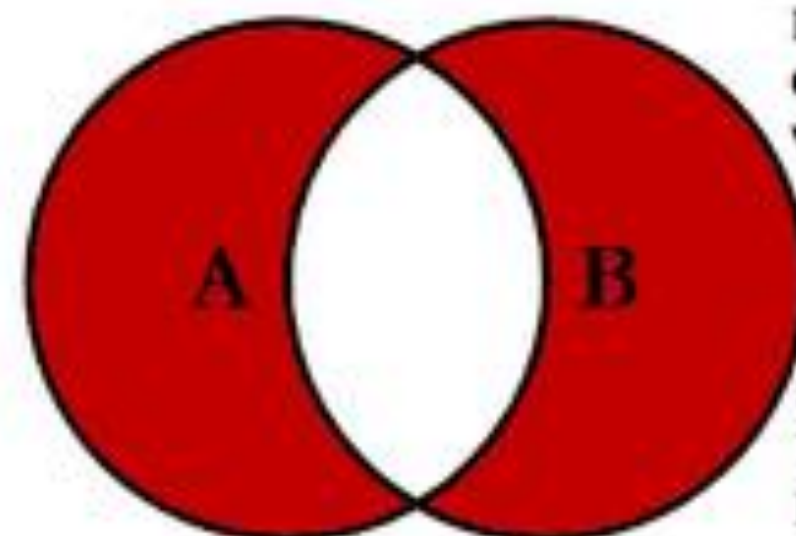
```
SELECT <select_list>  
FROM TableA A  
LEFT JOIN TableB B  
ON A.Key = B.Key  
WHERE B.Key IS NULL
```



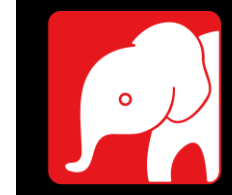
```
SELECT <select_list>  
FROM TableA A  
RIGHT JOIN TableB B  
ON A.Key = B.Key  
WHERE A.Key IS NULL
```



```
SELECT <select_list>  
FROM TableA A  
FULL OUTER JOIN TableB B  
ON A.Key = B.Key
```



```
SELECT <select_list>  
FROM TableA A  
FULL OUTER JOIN TableB B  
ON A.Key = B.Key  
WHERE A.Key IS NULL  
OR B.Key IS NULL
```



只为遇见明天更优秀的你！