

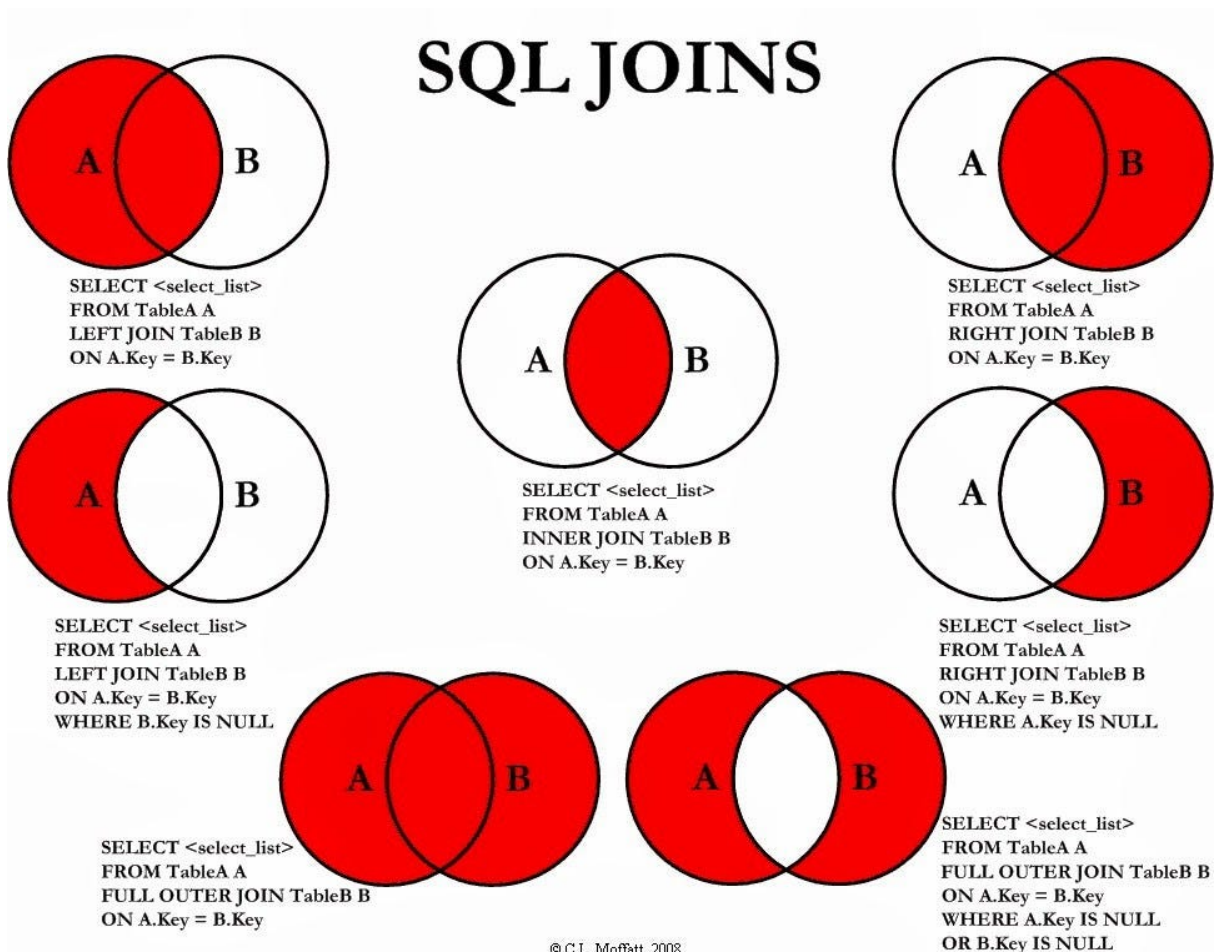


# Week2

Type	Lecture
Materials	<a href="#">Chapter 1.pdf</a>
Reviewed	<input checked="" type="checkbox"/>

## SQL Operations

### Join operations



## Natural join

Natural joins are inner joins by default, that given two tables compares all common attributes and outputs the inner join between the tables given all common attributes

▲ Disclaimer: For the perfect world, is not a recommended common practice

### Example

The following is a natural join achieved, that outputs 22 tuples given the university DB

```
SELECT * FROM sectiontbl NATURAL JOIN takes;  
-- count 22
```

The following is equivalent to the code snippet above, but notice the difference in the ordering of the attributes

```
SELECT * FROM sectiontbl NATURAL JOIN takes;  
  
-- count 22
```

## Where condition joins

Joins using where conditions do inner joins between two tables comparing specified attributes and output the inner join between the tables given the specified attributes

### Generic example

The cartesian product between takes and section

```
SELECT COUNT(*) FROM takes, sectiontbl;  
-- count 330
```

Filter with where statement outputs 253 tuples

```
SELECT * FROM takes, sectiontbl WHERE takes.SectionID = sectiontbl.SectionID  
-- count 253
```

## Example of Natural join with where

The following is a natural join achieved with the where condition, that outputs 22 tuples given the university DB

```
SELECT * FROM takes, sectiontbl WHERE takes.SectionID = sectiontbl.SectionID  
-- count 22
```