

Slide 1: Summary

A dark blue slide with a subtle background pattern of overlapping, semi-transparent circular shapes. The word "Summary" is centered in the upper half in a large, white, sans-serif font, with a short orange horizontal line underneath it. In the lower right area, the text "Sadie St. Lawrence, MSA" and "Data Scientist, VSP" is displayed in white. To the right of this text is the "UC DAVIS EXTENSION" logo, with "UC DAVIS" in a larger font above "EXTENSION".

Summary

Sadie St. Lawrence, MSA
Data Scientist, VSP

UC DAVIS
EXTENSION

Slide 2: Best Practices Using Joins

Best Practices Using Joins

It is **easy to get results** -- you must
make sure they are the **right results**

Check the number of records

Does it seem logical given the kind
of join you are performing?

Slide 3: Best Practices Using Joins

Best Practices Using Joins

Check for duplicates

Check the number of records each time
you make a new join

Are you getting the results you expected?

Start small: one table at a time

Slide 4: “Slowly Do”

“Slowly Do”

Think about what you are trying to do first

Map how you are joining data tables

Think about what your query is trying to do

Thinking first now will save time
and frustration later

Slide 5: Use a JOIN Condition

Use a JOIN Condition

Cartesian CROSS JOIN

INNER JOIN

LEFT JOIN

RIGHT JOIN

Slide 6: Joins and Database Performance

Joins and Database Performance

The more tables you join, the slower the database will perform

Don't grab unnecessary data if you don't need to

Be strategic

Take only what you need

Slide 7: Join Syntax

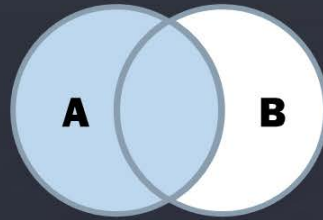
Join Syntax

Always check the particular syntax
for your DBMS

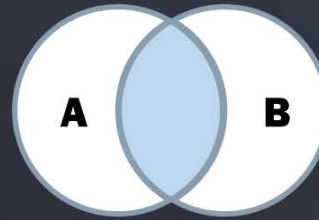
Remember SQLite does not do
RIGHT and FULL OUTER joins

Slide 8: SQL Joins

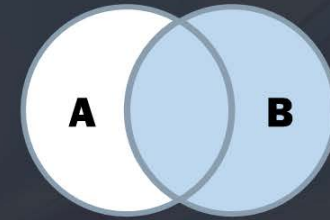
SQL Joins



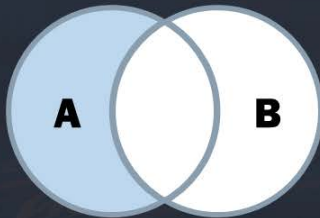
```
SELECT <select_list>
FROM TableA A
LEFT JOIN TableB B
ON A.Key = B.Key
```



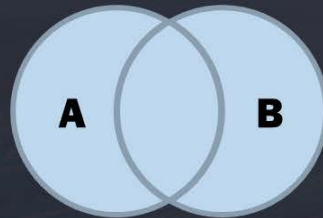
```
SELECT <select_list>
FROM TableA A
INNER JOIN TableB B
ON A.Key = B.Key
```



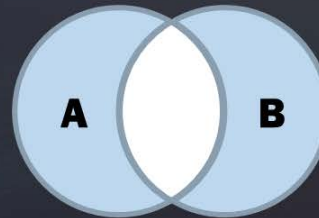
```
SELECT <select_list>
FROM TableA A
RIGHT JOIN TableB B
ON A.Key = B.Key
```



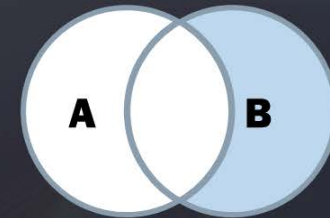
```
SELECT <select_list>
FROM TableA A
LEFT JOIN TableB B
ON A.Key = B.Key
```



```
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
```



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