



Recursion in SQL

Basic recursive
WITH statement —
Demo

SQL With Recursive Statement

With Recursive

R1 AS (query-1),

R2 AS (query-2),

...

Rn AS (query-n)

<query involving R1, ..., Rn (and other tables)>

SQL With Recursive Statement

With Recursive

R As (base query 

Union

recursive query )

<query involving R (and other tables)>

Example 1: Ancestors

ParentOf(parent, child)

➤ *Find all of Mary's ancestors*

Example 2: Company hierarchy

Employee(ID, salary)

Manager(mID, eID)

Project(name, mgrID)

➤ *Find total salary cost of project 'X'*

Example 3: Airline flights

Flight(orig, dest, airline, cost)

➤ *Find cheapest way to fly from 'A' to 'B'*

Including what happens when we introduce cycles