Relational Algebra Expressions and their SQL Equivalents

columns to be selected, e.g. *

(where to join) ON

π	Projection	SELECT
σ	Selection	FROM
σ_θ	Constraint	WHERE
$\bowtie$	Natural Join	JOIN *or comma in FROM-clause*
$\cap$	Intersection	INTERSECT
$\cup$	Union	UNION
$\setminus$	Exclusion	EXCEPT
δ	Duplicate Elimination	DISTINCT
τ	Sorting	ORDER BY
γ	Aggregation/Grouping	GROUP BY

$\times$	Cartesian Product	$R_1 \times R_2$ means "concatenate each row of R_1 with each row of R_2"

ρ Renaming

Bars	
name	address
...	...

$Pubs := \rho_{Bars(pub, addr)}(Bars)$

Pubs	
pub	addr
...	...