

Relational Algebra special characters

October 13, 2018

selection	$\sigma_{cname < cname2 \wedge enr > 10000} E$
projection	$\pi_{cname} E$
aggregate function	$G_{g_1, g_2, \dots} G_{h_1, h_2, \dots, h_m}$

Table 1: Unary operators

union	\cup
intersection	\cap
difference	$-$
cartesian product	\times
division	\div
rename	ρ
natural join	\bowtie
theta join	\bowtie_{θ}
left semijoin	\ltimes
right semijoin	\rtimes
left outer join	$\ltimes\!\!\!\diagup$
right outer join	$\rtimes\!\!\!\diagdown$
full outer join	$\ltimes\!\!\!\diagup\!\!\!\diagdown$
antijoin	\oslash

Table 2: Binary operators

Logical AND	\wedge
Logical OR	\vee
Logical NOT	\neg
null	ω

Table 3: Logic symbols and others

$$Grades \leftarrow \pi_{(students.ssn, students.name, grades.grade)}(\sigma_{students.ccn=grades.ccn \wedge grades.assignment=1}(students \times grades))$$

$$\begin{aligned} \textit{Grades} \leftarrow & \pi_{(\textit{students.ssn}, \textit{students.name}, \textit{grades.grade})} \\ & (\sigma_{(\textit{students.ssn}, \textit{students.name}, \textit{grades.grade})} \\ & (\textit{students} \times \textit{grades})) \end{aligned}$$