

Jointure Externe

CLIENT	NUMCL
	CL1	
	CL2	
	CL3	
	CL4	

RESERVATION	IDV	DATEDEP	NUMCL
	V1	D1	CL1	...
	V2	D2	CL2	

RESULTAT	NUMCL	...	IDV	DATEDEP	NUMCL	...
	CL1		V1	D1	CL1	...
	CL2		V2	D2	CL2	...
	CL3	...	NULL	NULL	NULL	NULL
	CL4	...	NULL	NULL	NULL	NULL

Formulation algébrique

```

SELECT      CL.NUMCL, ..., IDV, DATEDEP, NUMCL, ..
FROM        CLIENT CL,
LEFT JOIN   RESERVATION RE
ON          CL.NUMCL = RE.NUMCL ;

```

Formulation prédicative

```

SELECT      CL.NUMCL, ..., IDV, DATEDEP, NUMCL, ..
FROM        CLIENT CL, RESERVATION RE
WHERE       CL.NUMCL = RE.NUMCL (+) ;

```

Jointure et sélection externe

Formulation algébrique

```
SELECT      CL.NUMCL, ..., IDV, DATEDEP, NUMCL, ..
FROM        CLIENT CL,
LEFT JOIN   RESERVATION RE
ON          CL.NUMCL = RE.NUMCL AND DATEDEP = 'D1' ;
```

Formulation prédicative

```
SELECT      CL.NUMCL, ..., IDV, DATEDEP, NUMCL, ..
FROM        CLIENT CL, RESERVATION RE
WHERE       CL.NUMCL = RE.NUMCL (+)
AND         DATEDEP (+) = 'D1' ;
```

RESULTAT	NUMCL	...	IDV	DATEDEP	NUMCL	...
	CL1	...	V1	D1	CL1	...
	CL2	...	NULL	NULL	NULL	NULL
	CL3	...	NULL	NULL	NULL	NULL
	CL4	...	NULL	NULL	NULL	NULL

Expression de la négation avec la jointure externe

Formulation algébrique

```
SELECT      CL.NUMCL, ..., IDV, DATEDEP, NUMCL, ..  
FROM        CLIENT CL,  
LEFT JOIN  RESERVATION RE  
ON          CL.NUMCL = RE.NUMCL  
WHERE       IDV IS NULL ;
```

Formulation prédictive

```
SELECT      CL.NUMCL, ..., IDV, DATEDEP, NUMCL, ..  
FROM        CLIENT CL, RESERVATION RE  
WHERE       CL.NUMCL = RE.NUMCL (+)  
AND         IDV IS NULL ;
```

RESULTAT	NUMCL	...	IDV	DATEDEP	NUMCL	...
	CL3	...	NULL	NULL	NULL	NULL
	CL4	...	NULL	NULL	NULL	NULL