

# Databases (Key: 1644) Relational Algebra Class Example

----- Arellanes Conde Esteban -----

### Contents

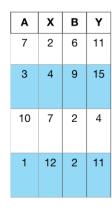
1	Homework: Relational Algebra	3
	1.1 $R1 \times R2$	Ş
	1.2 $R1 \bowtie R2$ (Join Natural)	4
	1.3 $R1 \bowtie ((R1.A > R2.Z \text{ or } R1.A \ge R2.W) \text{ and } R1.Y = R2.Y)R2 \dots \dots \dots$	4
2	References	4

## 1 Homework: Relational Algebra

### Tarea 7



R1



R2



Tabla que incluya:

R1XR2  $R2 \bowtie R1$ 

- atributos
- registros

 $R1 \bowtie_{((R1.A > R2.Z \text{ or } R1.A >= R2.W) \text{ and } R1.Y = R2.Y)} R2$ 



Álgebra Relacional

Ing. Fernando A.

Figure 1: Tarea7.1.

#### 1.1 $R1 \times R2$

A	X	B	Y	$B_2$	W	D	$Y_2$	$A_2$	Z
7	2	6	11	2	5	6	11	1	30
7	2	6	11	2	5	6	11	1	30
3	4	9	15	4	7	8	4	7	8

Table 1:  $R1 \times R2$ 

1.2  $R1 \bowtie R2$  (Join Natural)

A	В	Y		
Ø	Ø	Ø		

**1.3**  $R1 \bowtie ((R1.A > R2.Z \text{ or } R1.A \ge R2.W) \text{ and } R1.Y = R2.Y)R2$ 

A	X	B	Y	$B_2$	W	D	$Y_2$	$A_2$	Z
10	7	2	4	4	7	8	4	7	8

#### 2 References

- [1] Ramez Elmasri, Shamkant B. Navathe. Fundamentals of Database Systems (Global Edition). Pearson 2017
- [2] De Miguel Martínez, Adoración, Piattini, Mario, Esperanza, Marcos Diseño de bases de datos relacionales. México, Alfaomega, 2000.
- [3] Kriegel, Alex; Trukhnov. SQL Bible, second edition, Willey 2008.
- [4] Alan Beaulieu, Learning SQL: Generate, Manipulate, and Retrieve Data, O'Reilly, 3rd. Edition 2020.
- [5] Joan Casteel, Oracle 12c: SQL. Cengage Learning, Sep 11, 2015.
- [6] PostgreSQL Global Development Group, "PostgreSQL Documentation," https://www.postgresql.org/docs/.
- [7] IEEE, "Guide to Software Requirements Specifications," IEEE Std 830-1984. https://chumpolm.files.wordpress.com/2018/09/ieee-std-830-1984.pdf