

## Datos

Faros_de_Xenon	Alarma	Techo_Solar	Navegador	Bluetooth	Control_de_Velocidad
1	0	0	1	1	1
1	0	1	0	1	1
1	0	0	1	0	1
1	0	1	1	1	0
1	0	0	0	1	1
0	0	0	1	0	0
1	0	0	0	1	1
0	1	1	0	0	0

Soporte  $\geq 0.5$  Confianza  $\geq 0.8$

## Resultados obtenidos

```
[OK] {Control_de_Velocidad} => {Bluetooth}
[OK] {Bluetooth} => {Control_de_Velocidad}
[OK] {Control_de_Velocidad}=> {Faros_de_Xenon}
[OK] {Faros_de_Xenon}=> {Control_de_Velocidad}
[OK] {Bluetooth}=> {Faros_de_Xenon}
[OK] {Faros_de_Xenon}=> {Bluetooth}
[OK] {Bluetooth,Control_de_Velocidad} => {Faros_de_Xenon}
[OK] {Faros_de_Xenon,Control_de_Velocidad} => {Bluetooth}
[OK] {Faros_de_Xenon,Bluetooth} => {Control_de_Velocidad}
```

```
[NO] {Control_de_Velocidad} =>{Faros_de_Xenon,Bluetooth}
[NO] {Bluetooth} =>{Faros_de_Xenon,Control_de_Velocidad}
```

Los datos con [OK] fueron obtenidos por apriori, por mi implementación y a mano, los datos con NO solo por mi implementación y a mano.

## Replicar resultados

```
source("calapriori.R")
source("f_apriori.R")
toTable(f_apriori(readAprioriFile("datos2.txt"),0.5,0.8))
calapriori(readAprioriFile("datos2.txt"),0.5,0.8)
```

$\left\{ \begin{array}{l} F = \text{Fares de Xeon} \\ A = \text{Alarma} \\ T = \text{Techo solar} \\ N = \text{Navegador} \\ B = \text{Blue tooth} \\ C = \text{Control de velocidad} \end{array} \right.$

$$1 \langle F, N, B, C \rangle$$

$$2 \langle F, T, B, C \rangle$$

$$3 \langle F, N, C \rangle$$

$$4 \langle F, T, N, B \rangle$$

$$5 \langle F, B, C \rangle$$

$$6 \langle N \rangle$$

$$7 \langle F, B, C \rangle$$

$$8 \langle A, T \rangle$$

$$S(\langle F \rangle) = 6/8 \checkmark$$

$$S(\langle A \rangle) = 1/8$$

$$S(\langle T \rangle) = 3/8$$

$$S(\langle N \rangle) = 4/8 \checkmark$$

$$S(\langle B \rangle) = 5/8 \checkmark$$

$$S(\langle C \rangle) = 5/8 \checkmark$$

$$S(N) \geq 0.5$$

$$S(\langle F, N \rangle) = 3/8$$

$$S(\langle F, B \rangle) = 5/8 \checkmark$$

$$S(\langle F, C \rangle) = 5/8 \checkmark$$

$$S(\langle N, B \rangle) = 2/8$$

$$S(\langle N, C \rangle) = 2/8$$

$$S(\langle B, C \rangle) = 4/8 \checkmark$$

$$S(\langle F, B, C \rangle) = 4/8 \checkmark$$

$$S(\langle F, B, N \rangle) =$$

$$S(\langle B, C, N \rangle) =$$

$$C(\langle F \rangle \rightarrow \langle N \rangle) = 3/6$$

$$C(\langle N \rangle \rightarrow \langle F \rangle) = 3/4$$

$$C(\langle F \rangle \rightarrow \langle B \rangle) = 5/6 \checkmark$$

$$C(\langle B \rangle \rightarrow \langle F \rangle) = 5/5 \checkmark$$

$$C(\langle F \rangle \rightarrow \langle C \rangle) = 5/6 \checkmark$$

$$C(\langle C \rangle \rightarrow \langle F \rangle) = 5/5 \checkmark$$

$$C(\langle N \rangle \rightarrow \langle B \rangle) = 2/4$$

$$C(\langle B \rangle \rightarrow \langle N \rangle) = 2/5$$

$$C(\langle N \rangle \rightarrow \langle C \rangle) = 2/4$$

$$C(\langle C \rangle \rightarrow \langle N \rangle) = 2/5$$

$$C(\langle B \rangle \rightarrow \langle C \rangle) = 4/5 \checkmark$$

$$C(\langle C \rangle \rightarrow \langle B \rangle) = 4/5 \checkmark$$

$$C(\langle F \rangle \rightarrow \langle B, C \rangle) = 4/6$$

$$C(\langle B, C \rangle \rightarrow \langle F \rangle) = 4/4 \checkmark$$

$$C(\langle N \rangle \rightarrow \langle F, B \rangle) = 2/4$$

$$C(\langle F, B \rangle \rightarrow \langle N \rangle) = 2/5$$

$$C(\langle N \rangle \rightarrow \langle F, C \rangle) = 2/4$$

$$C(\langle F, C \rangle \rightarrow \langle N \rangle) = 2/5$$

$$C(\langle N \rangle \rightarrow \langle B, C \rangle) = 1/4$$

$$C(\langle B, C \rangle \rightarrow \langle N \rangle) = 1/4$$

$$C(\langle B \rangle \rightarrow \langle F, C \rangle) = 4/5 \checkmark \bullet$$

$$C(\langle F, C \rangle \rightarrow \langle B \rangle) = 4/5 \checkmark$$

$$C(\langle C \rangle \rightarrow \langle F, B \rangle) = 4/5 \checkmark \bullet$$

$$C(\langle F, B \rangle \rightarrow \langle C \rangle) = 4/5 \checkmark$$

$$C(N) \geq 0.8$$

Figure 1: Manual\_apriori