

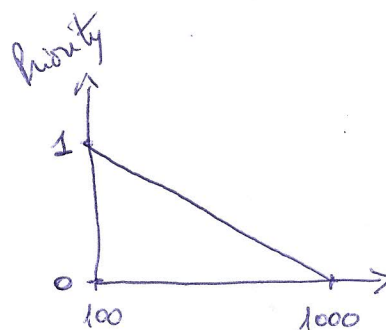
Best Software

Ratings

	Cost	User Interface
Min Rating	100	1
A	100	1
B	800	3
C	1000	5
Max Rating	1000	5

Priorities

Cost (Valuefn)
↓



• Função linear

• Minimizar $\longrightarrow y = \frac{-x + 1000}{1000 - 100}$

Genêricamente

$$y = \frac{\text{MAX} - x}{\text{MAX} - \text{MIN}}$$

	Cost	Priorities
A	100	1
B	800	$\frac{1000 - 800}{1000 - 100} = \frac{200}{900} = 0.222$
C	1000	0

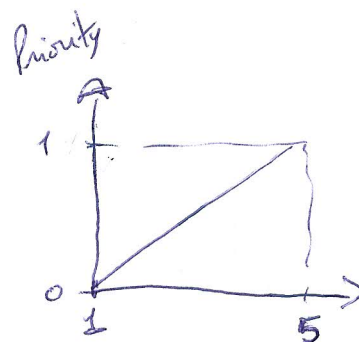
User Interface (Valuefn)

• Função linear

• Maximizar $\longrightarrow y = \frac{x - 1}{5 - 1}$

Genêricamente

$$y = \frac{x - \text{MIN}}{\text{MAX} - \text{MIN}}$$



	User Interface	Priorities
A	1	$\frac{1-1}{5-1} = 0$
B	3	$\frac{3-1}{5-1} = 0.5$
C	5	$\frac{5-1}{5-1} = 1$

Priorities (Método SMART)

Best Software

1. Atribuir 10 pontos ao atributo menos importante
2. Dar pontos (>10) para reflectir a importância dos outros atributos relativamente ao menos importante

	Points	Priorities
Interaction with user	10	$10/25 = 0.4$
Cost	15	$15/25 = 0.6$
	<u>25</u>	

Análise final

Best Software

1 Cost 0.6

2 A 0.818

$$\rightarrow 0.6 \times 0.818$$

B 0.182

$$\rightarrow 0.6 \times 0.182$$

C 0.000

$$\rightarrow 0.6 \times 0.000$$

1 User Interface 0.4

2 A 0.000

$$\rightarrow 0.4 \times 0.000$$

B 0.333

$$\rightarrow 0.4 \times 0.333$$

C 0.667

$$\rightarrow 0.4 \times 0.667$$

Composite Priorities

	A	B	C
Cost	0.491	0.109	0.000
User Interface	0.000	0.133	0.267
Overall	<u>0.491</u>	<u>0.242</u>	<u>0.267</u>
Ranking	1	3	2

AHP

Best Software

Interaction with user
0.2

Cost
0.8

A
0.14

B
0.29

C
0.57

A
0.70

B
0.19

C
0.11

Best Software

	I	U	C
Interaction with user	1	1/4	
Cost	4	1	
Sum	5	1.25	

Matriz normalizada

	sum	mean
0.2	0.2	0.4
0.8	0.8	1.6
		0.8

↑
Pesos

Nota: Verificar se a matriz é consistente

Interaction with user				Matriz normalizada			sum	mean
	A	B	C	A	B	C		
A	1	1/2	1/4	0.14	0.14	0.14	0.43	0.14
B	2	1	1/2	0.29	0.29	0.29	0.86	0.29
C	4	2	1	0.57	0.57	0.57	1.71	0.57
Sum	7	3.5	1.75					

Nota: Verificar se a matriz é consistente

Cost

Rating normalized

	A	B	C		A	B	C	Sum	Mean
A	1	4	6	A	0.71	0.73	0.67	2.10	0.70
B	1/4	1	2	B	0.18	0.18	0.22	0.58	0.19
C	1/6	1/2	1	C	0.12	0.09	0.11	0.32	0.11
Sum	1.42	5.5	9						

Priority Weight of A = $0.14 \times 0.2 + 0.7 \times 0.8 = 0.588$

Priority weight of B = $0.29 \times 0.2 + 0.19 \times 0.8 = 0.210$

Priority weight of C = $0.57 \times 0.2 + 0.11 \times 0.8 = 0.202$

Ranking

1

2

3