

Programa02 - Sub Set Sum

David Hernández Uriostegui

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Antes que nada, debemos mencionar que el costo de la solución obtenida se trata del parametro ϵ (*epsilon*) que le pasamos a nuestro programa.

1 Ejemplar 1

```
Para el ejemplar
S = [104, 102, 201, 101]          t = 308          epsilon = 0.4

Solución inicial: [0]
Merge: [0, 104]
Trim: [0, 104]
Remove elements greater than t: [0, 104]

Merge: [0, 102, 104, 206]
Trim: [0, 102, 206]
Remove elements greater than t: [0, 102, 206]

Merge: [0, 102, 201, 206, 303, 407]
Trim: [0, 102, 201, 303, 407]
Remove elements greater than t: [0, 102, 201, 303]

Merge: [0, 101, 102, 201, 203, 302, 303, 404]
Trim: [0, 101, 201, 302, 404]
Remove elements greater than t: [0, 101, 201, 302]

El resultado aproximado obtenido es: 302 y su costo es 0.4
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2 Ejemplar 2

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Para el ejemplar
S = [1, 2, 4, 5]      t = 14  epsilon = 0.8

Solución inicial: [0]
Merge: [0, 1]
Trim: [0, 1]
Remove elements greater than t: [0, 1]

Merge: [0, 1, 2, 3]
Trim: [0, 1, 2, 3]
Remove elements greater than t: [0, 1, 2, 3]

Merge: [0, 1, 2, 3, 4, 5, 6, 7]
Trim: [0, 1, 2, 3, 4, 5, 6, 7]
Remove elements greater than t: [0, 1, 2, 3, 4, 5, 6, 7]

Merge: [0, 1, 2, 3, 4, 5, 5, 6, 6, 7, 8, 9, 10, 11, 12]
Trim: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12]
Remove elements greater than t: [0, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12]

El resultado aproximado obtenido es: 12 y su costo es 0.8
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3 Ejemplar 3

```
Para el ejemplar
S = [1, 4, 5]      t = 10  epsilon = 0.4

Solución inicial: [0]
Merge: [0, 1]
Trim: [0, 1]
Remove elements greater than t: [0, 1]

Merge: [0, 1, 4, 5]
Trim: [0, 1, 4, 5]
Remove elements greater than t: [0, 1, 4, 5]

Merge: [0, 1, 4, 5, 6, 9, 10]
Trim: [0, 1, 4, 5, 6, 9, 10]
Remove elements greater than t: [0, 1, 4, 5, 6, 9, 10]

El resultado aproximado obtenido es: 10 y su costo es 0.4
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4 Ejemplar 4

```
Para el ejemplar
S = [60, 90, 120, 150]  t = 230          epsilon = 0.75

Solución inicial: [0]
Merge: [0, 60]
Trim: [0, 60]
Remove elements greater than t: [0, 60]

Merge: [0, 60, 90, 150]
Trim: [0, 60, 90, 150]
Remove elements greater than t: [0, 60, 90, 150]

Merge: [0, 60, 90, 120, 150, 180, 210, 270]
Trim: [0, 60, 90, 120, 150, 180, 210, 270]
Remove elements greater than t: [0, 60, 90, 120, 150, 180, 210]

Merge: [0, 60, 90, 120, 150, 150, 180, 210, 240, 270, 300, 330, 360]
Trim: [0, 60, 90, 120, 150, 180, 210, 240, 270, 300, 330]
Remove elements greater than t: [0, 60, 90, 120, 150, 180, 210]

El resultado aproximado obtenido es: 210 y su costo es 0.75
```

5 Ejemplar 5

```
Para el ejemplar
S = [120, 370, 400, 460, 500]  t = 800          epsilon = 0.33

Solución inicial: [0]
Merge: [0, 120]
Trim: [0, 120]
Remove elements greater than t: [0, 120]

Merge: [0, 120, 370, 490]
Trim: [0, 120, 370, 490]
Remove elements greater than t: [0, 120, 370, 490]

Merge: [0, 120, 370, 400, 490, 520, 770, 890]
Trim: [0, 120, 370, 400, 490, 520, 770, 890]
Remove elements greater than t: [0, 120, 370, 400, 490, 520, 770]

Merge: [0, 120, 370, 400, 460, 490, 520, 580, 770, 830, 860, 950, 980, 1230]
Trim: [0, 120, 370, 400, 460, 490, 520, 580, 770, 830, 860, 950, 1230]
Remove elements greater than t: [0, 120, 370, 400, 460, 490, 520, 580, 770]

Merge: [0, 120, 370, 400, 460, 490, 500, 520, 580, 620, 770, 870, 900, 960, 990, 1020, 1080, 1270]
Trim: [0, 120, 370, 400, 460, 490, 520, 580, 620, 770, 870, 900, 960, 1020, 1080, 1270]
Remove elements greater than t: [0, 120, 370, 400, 460, 490, 520, 580, 620, 770]

El resultado aproximado obtenido es: 770 y su costo es 0.33
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