

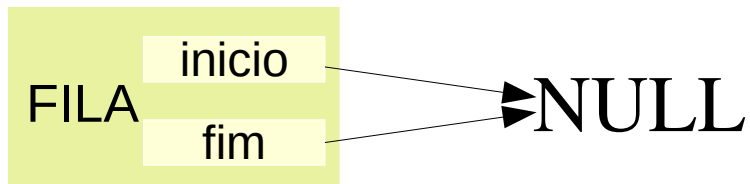
Exercício 13 – 0.Criar fila

Class fila:

```
Int tamanho;  
noh* inicio = null;  
noh* fim = null;
```

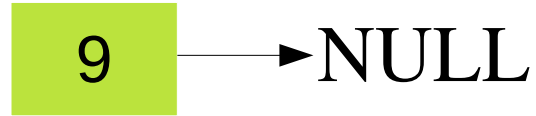
Class noh:

```
Int dado  
noh* próximo;
```



Tamanho = 0

1. Enfileirar elementos 9,11,2

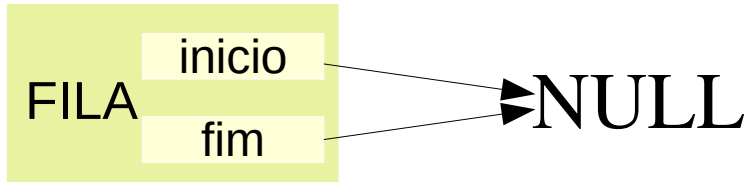


enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

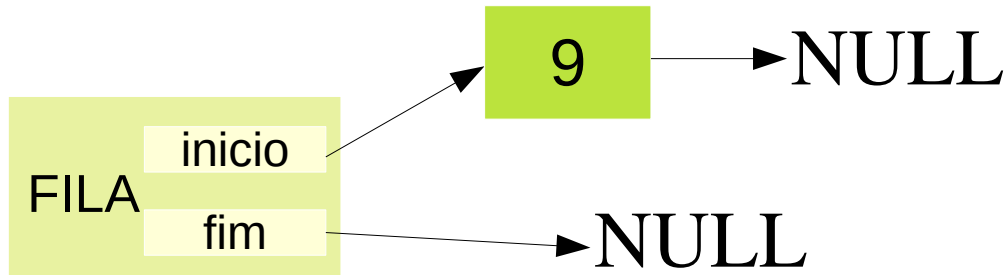
Tamanho = 0
```



1. Enfileirar elementos 9,11,2

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 0
```



1. Enfileirar elementos 9,11,2

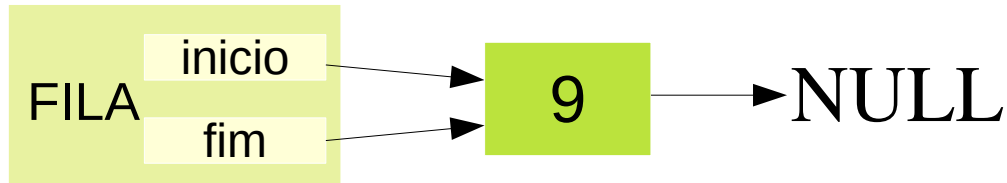
enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

```

Tamanho = 0

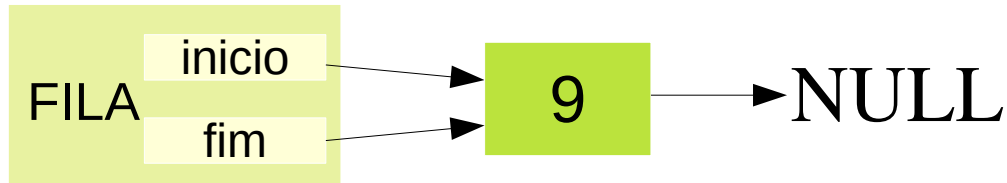


1. Enfileirar elementos 9,11,2

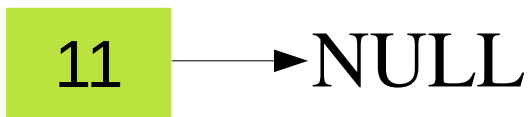
enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 1

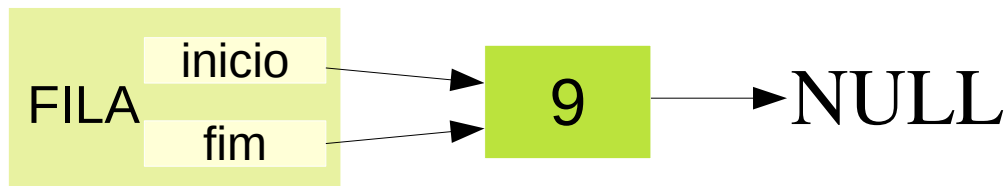


1. Enfileirar elementos 9,11,2



enqueue(valor):

```
novo ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 1
```



1. Enfileirar elementos 9,11,2

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 1
```



1. Enfileirar elementos 9,11,2

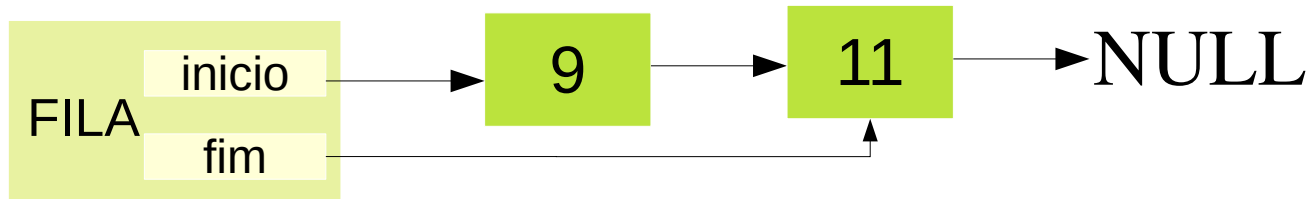
enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

Tamanho = 1

```



1. Enfileirar elementos 9,11,2

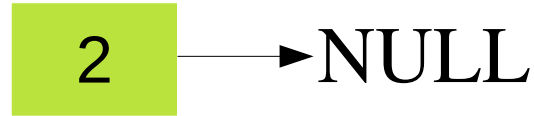
enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 2



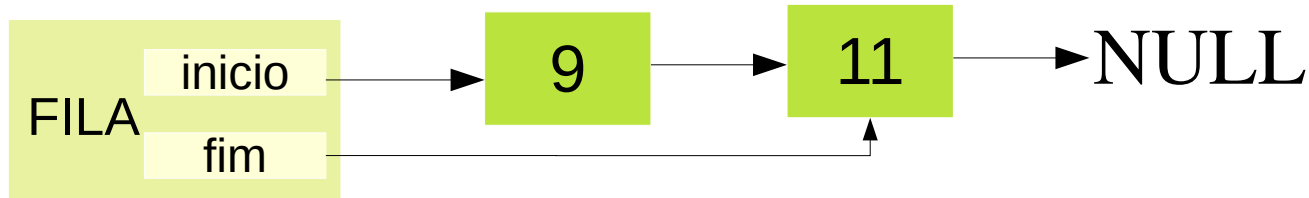
1. Enfileirar elementos 9,11,2



enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 2



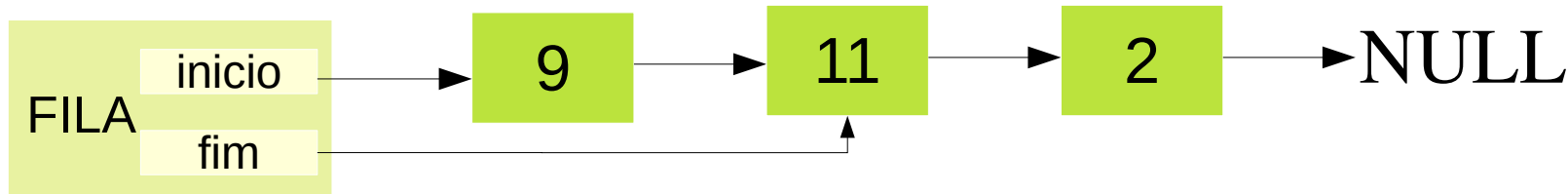
1. Enfileirar elementos 9,11,2

enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

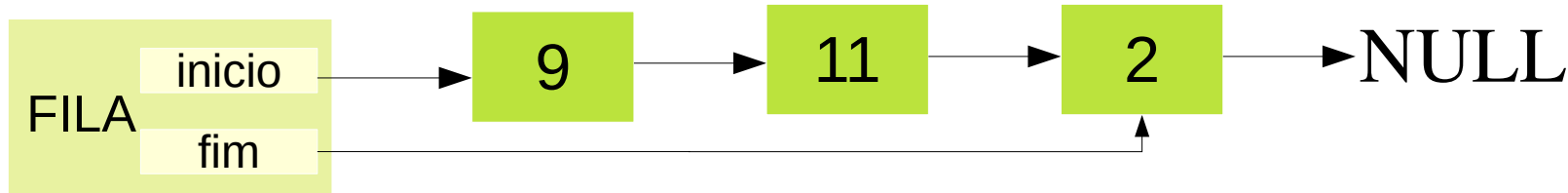
Tamanho = 2
```



1. Enfileirar elementos 9,11,2

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 2
```

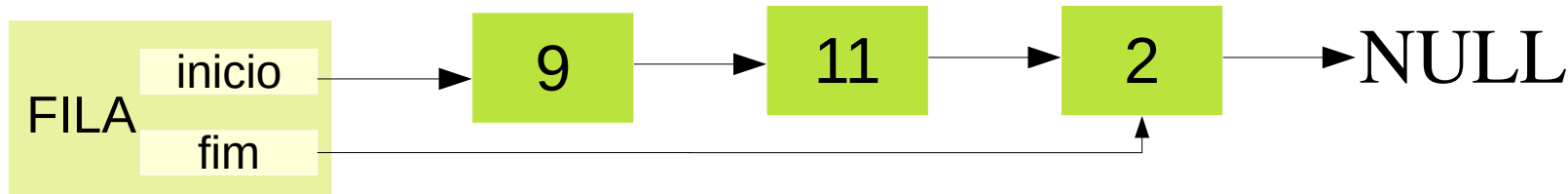


1. Enfileirar elementos 9,11,2

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

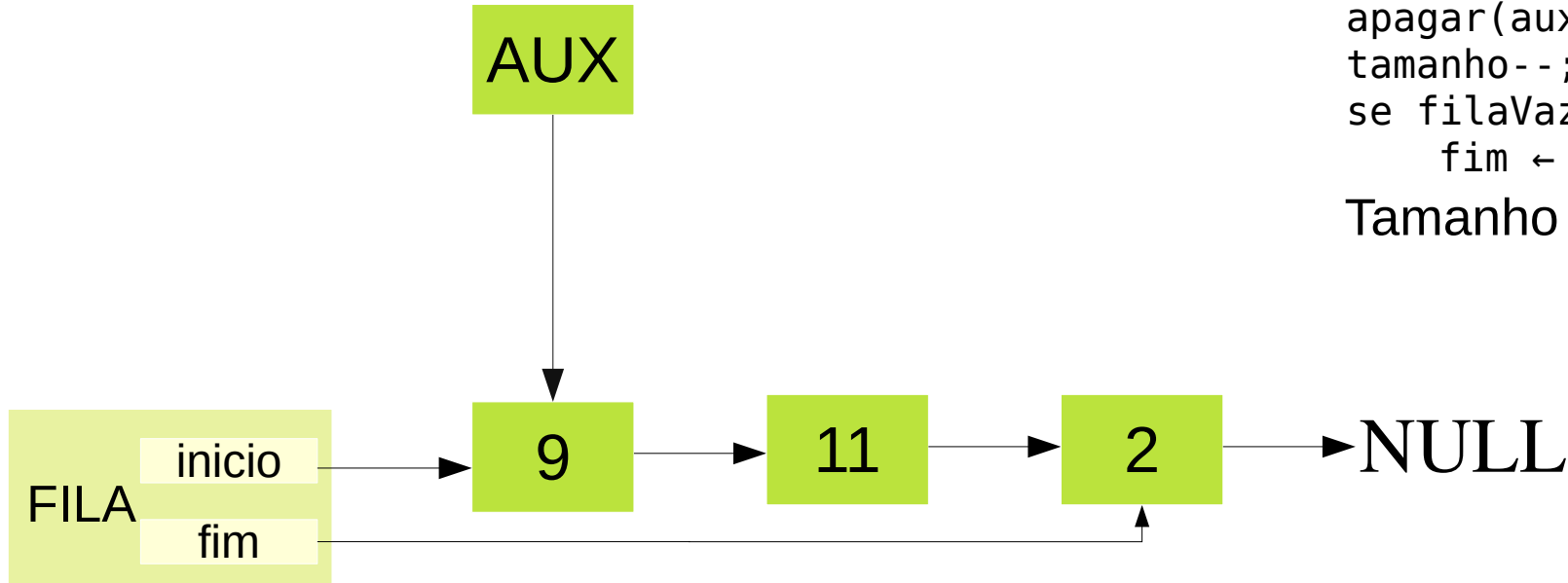
Tamanho = 3



2. Desenfileirar

dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 3
```

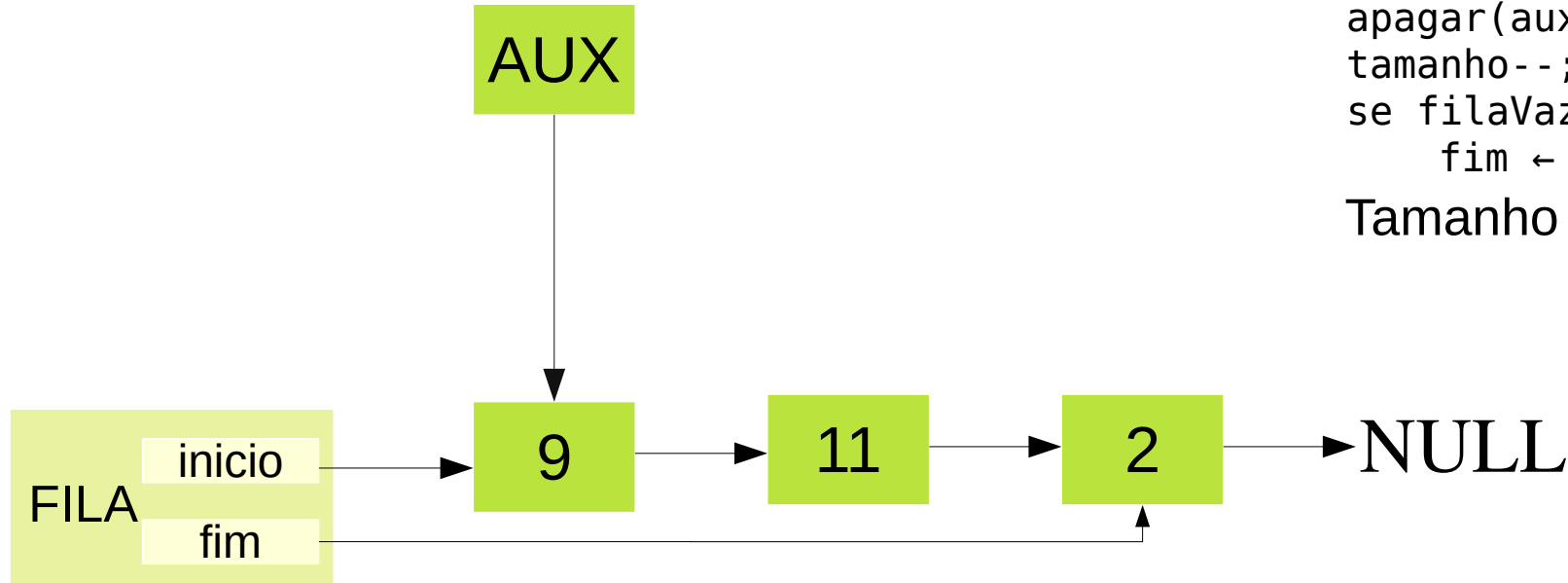


2. Desenfileirar

dequeue():

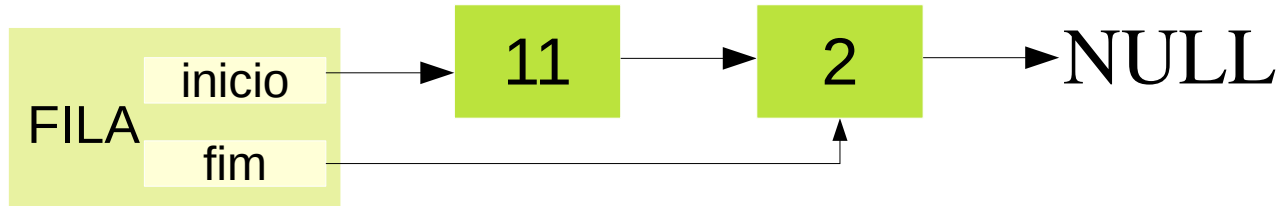
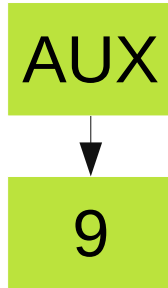
```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 3
```

Dado = 9



2. Desenfileirar

Dado = 9

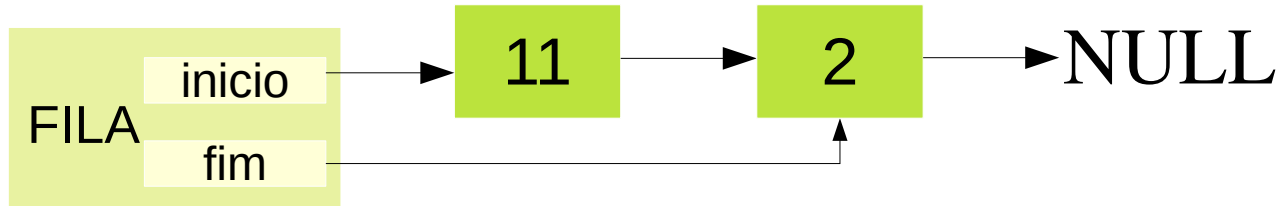
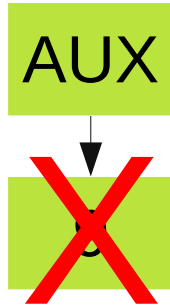


dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 3
```


2. Desenfileirar

Dado = 9



dequeue():

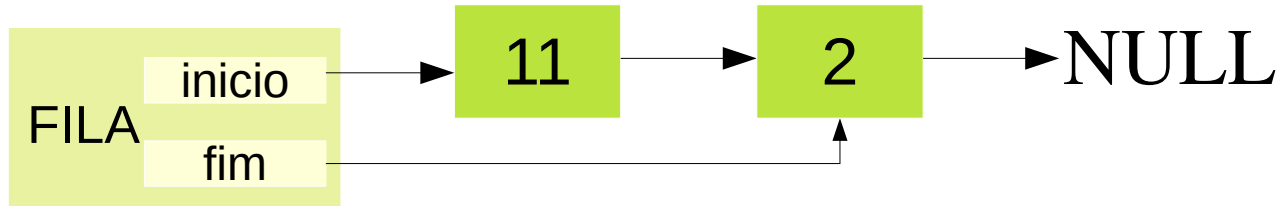
```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 3
```

2. Desenfileirar

dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;
```

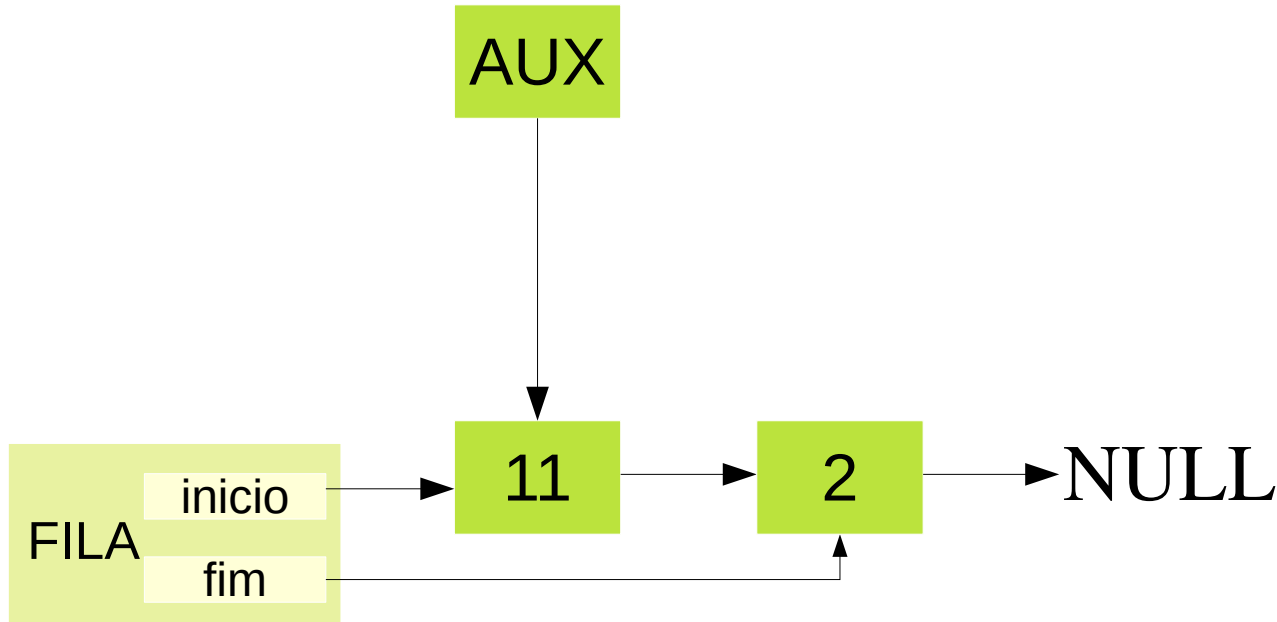
Tamanho = 2



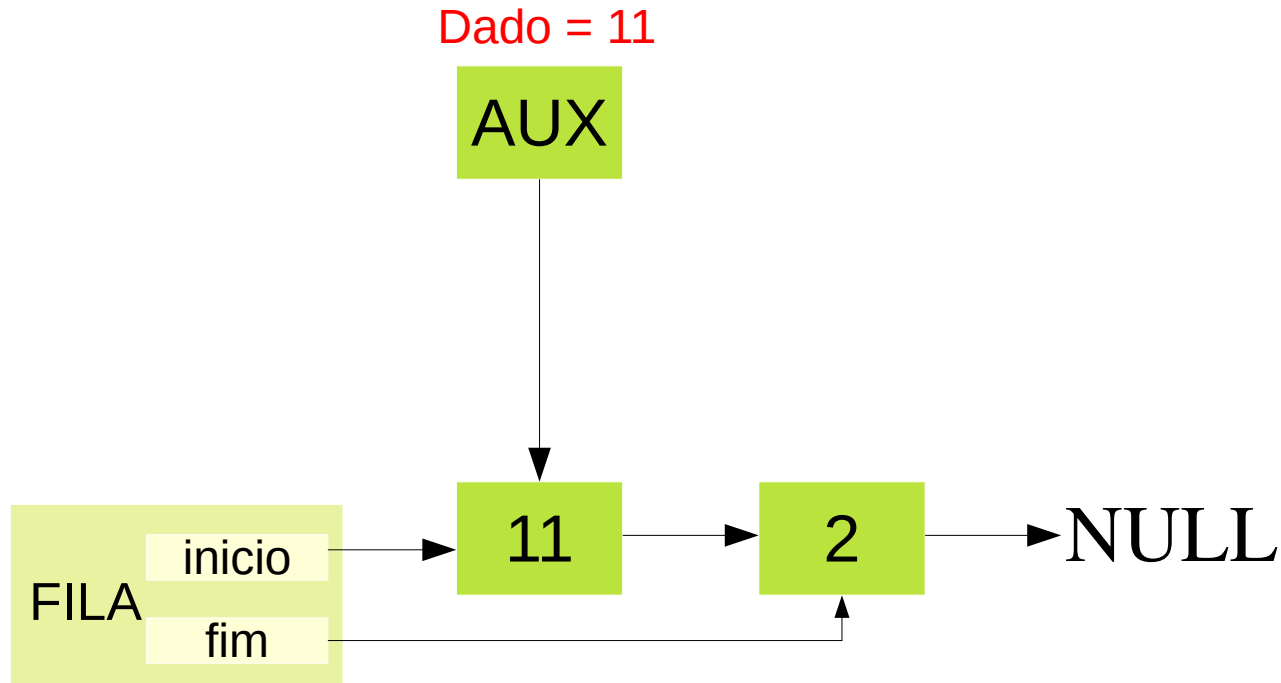
3. Desenfileirar

dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 2
```



3. Desenfileirar



dequeue():

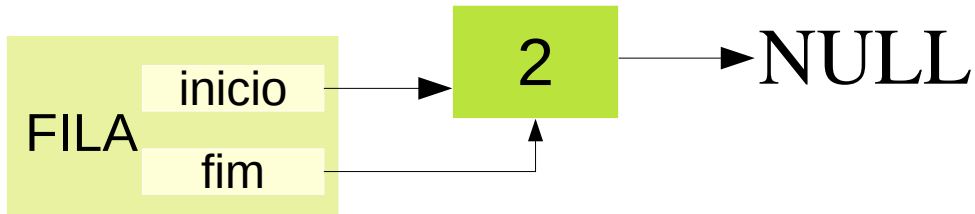
```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 2
```

3. Desenfileirar

Dado = 11

AUX

11



dequeue():

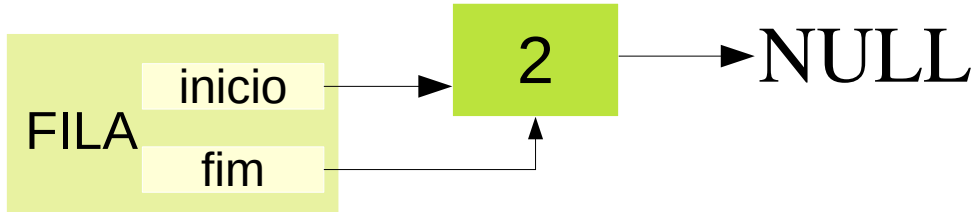
```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 2
```

3. Desenfileirar

Dado = 11

AUX

~~11~~



dequeue():

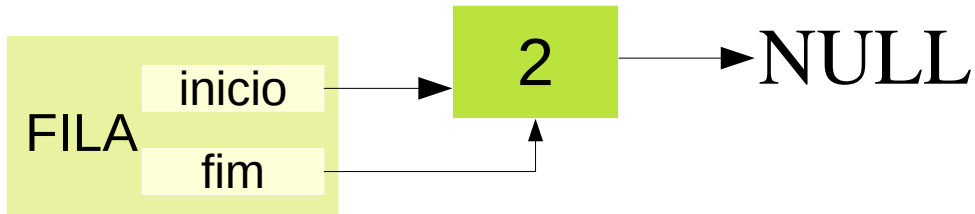
```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 2
```

3. Desenfileirar

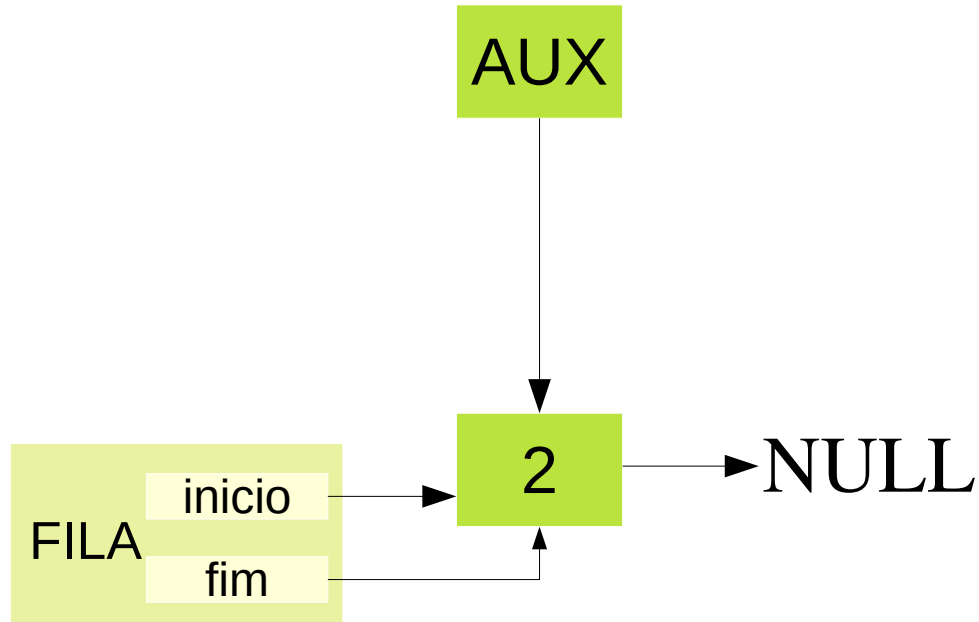
dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;
```

Tamanho = 1



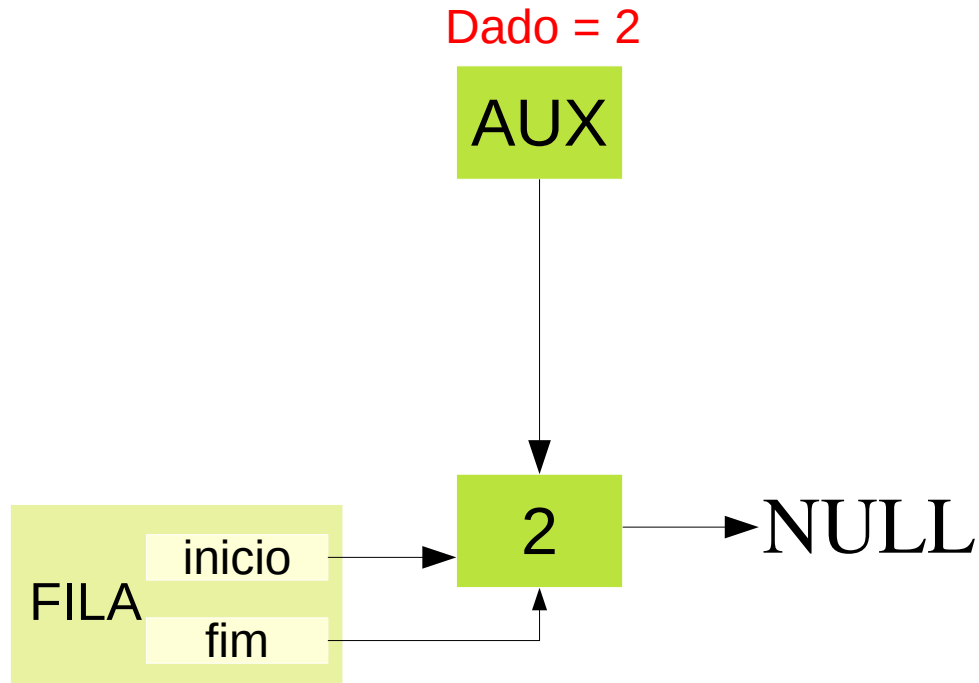
4. Desenfileirar



dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 1
```

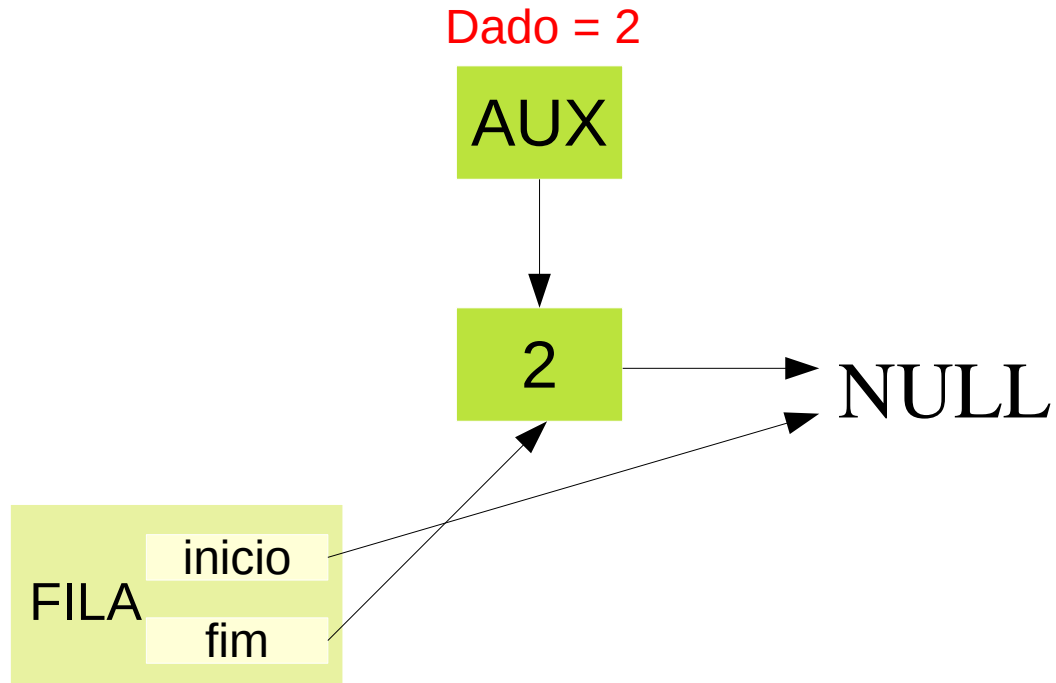

4. Desenfileirar



dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 1
```

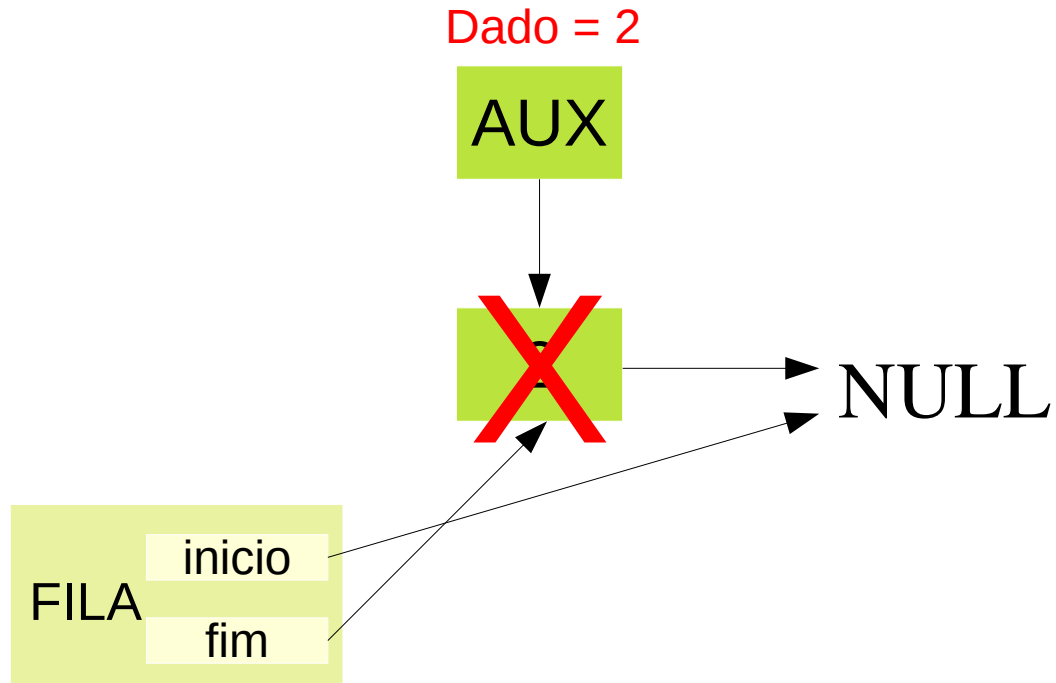
4. Desenfileirar



dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 1
```

4. Desenfileirar



dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;
```

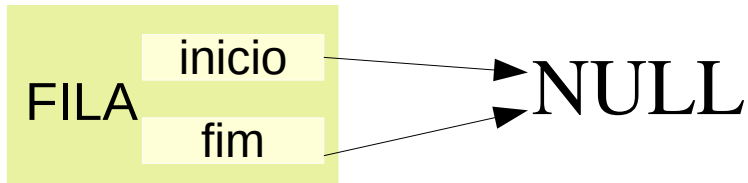
Tamanho = 0

4. Desenfileirar

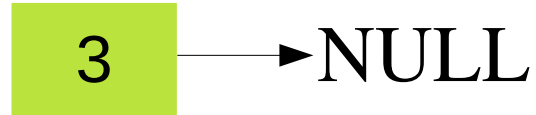
dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;
```

Tamanho = 0



5. Enfileirar elemento 3

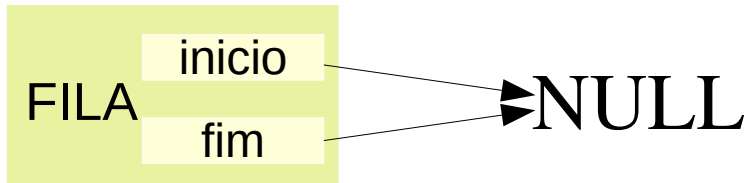


enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

Tamanho = 0
```

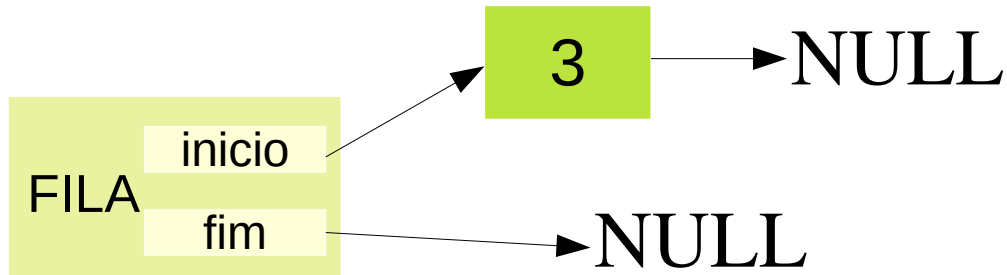


5. Enfileirar elemento 3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 0

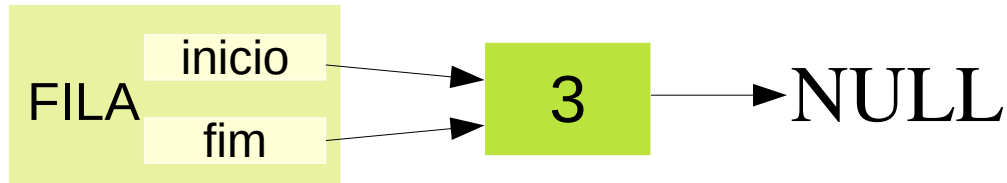


5. Enfileirar elemento 3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 0

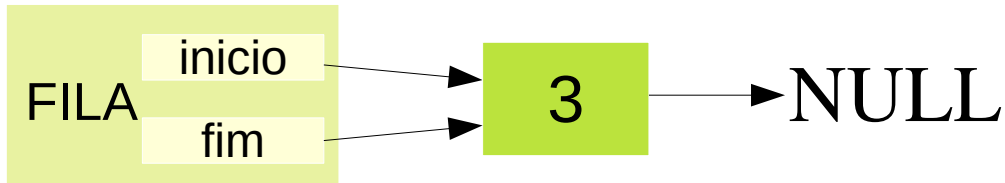


5. Enfileirar elemento 3

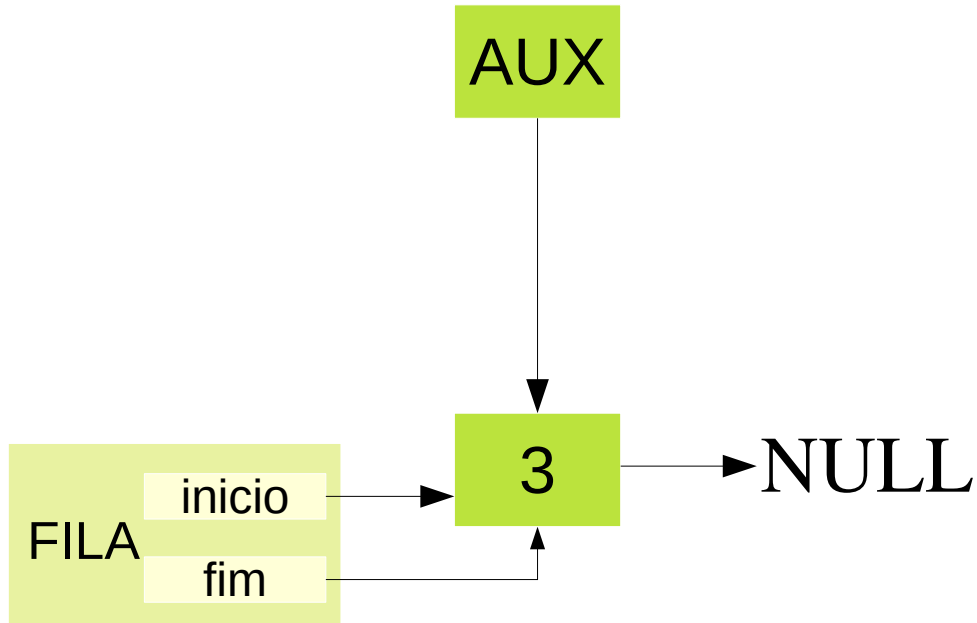
enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 1



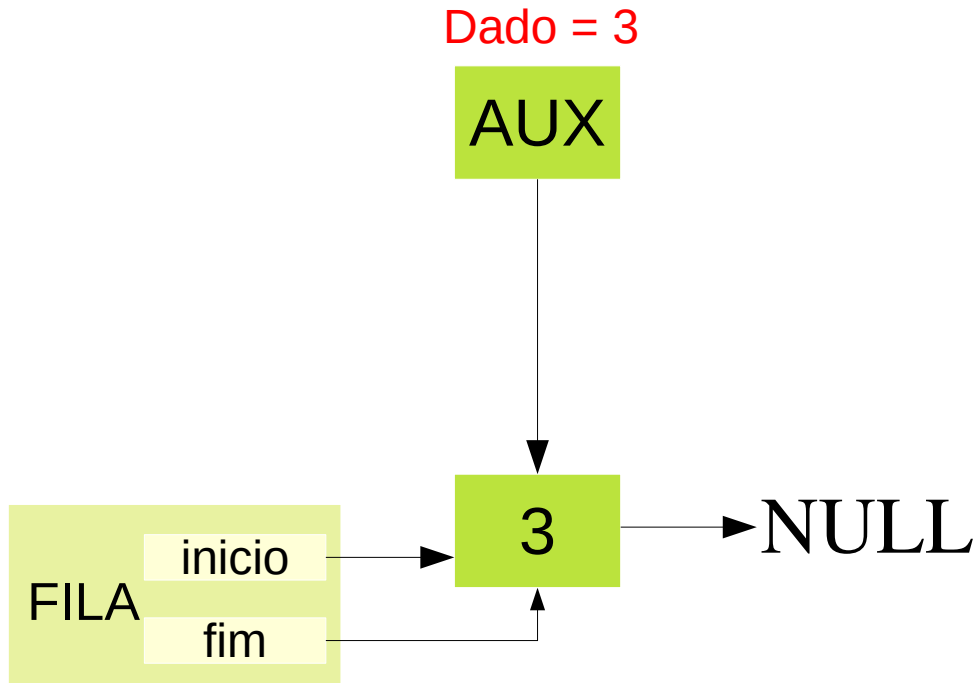
6. Desenfileirar



dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 1
```

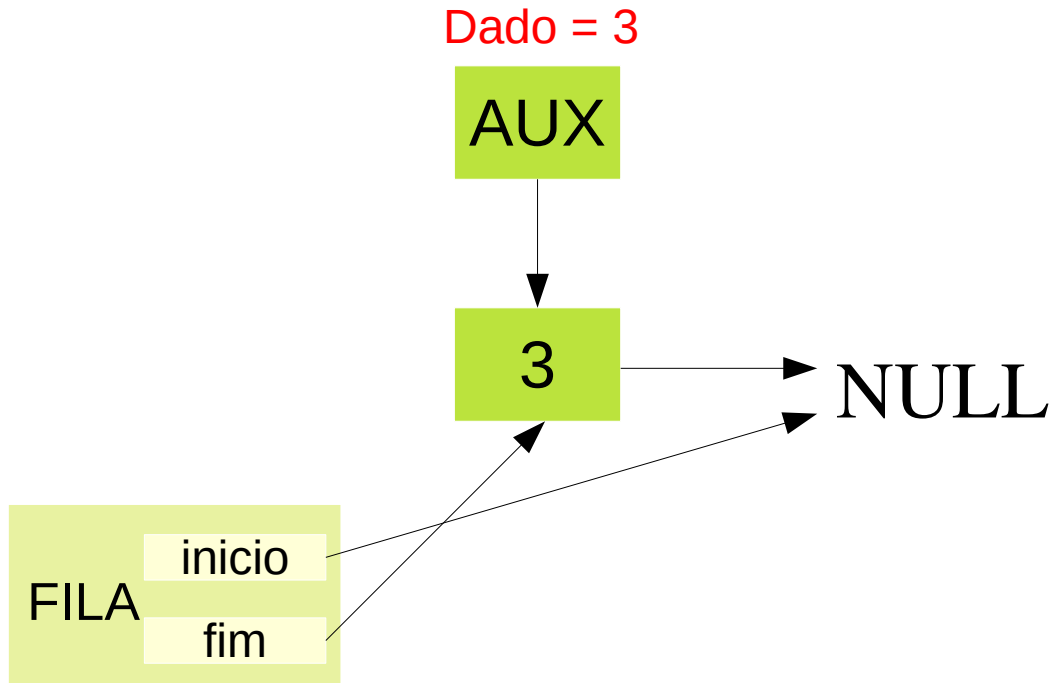
6. Desenfileirar



dequeue():

```
aux ← inicio;  
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inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 1
```

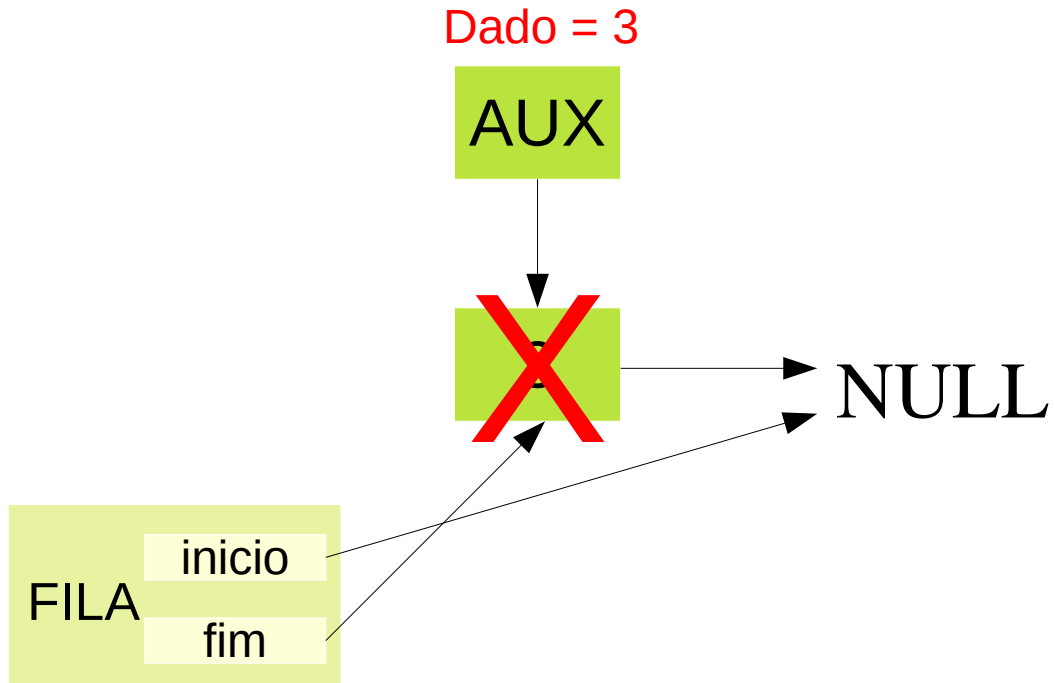
6. Desenfileirar



dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 1
```

6. Desenfileirar



dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;
```

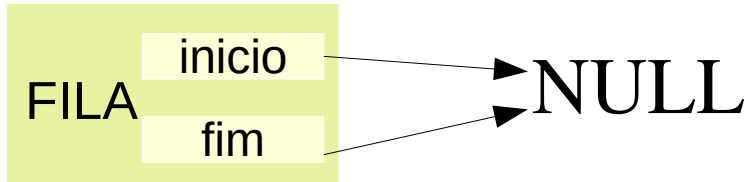
Tamanho = 0

6. Desenfileirar

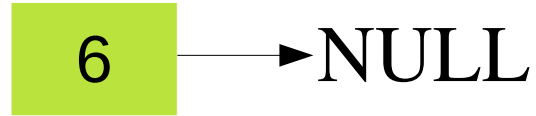
dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
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tamanho--;  
se filaVazia()  
    fim ← nulo;
```

Tamanho = 0



7. Enfileirar elementos 6,8,0,3

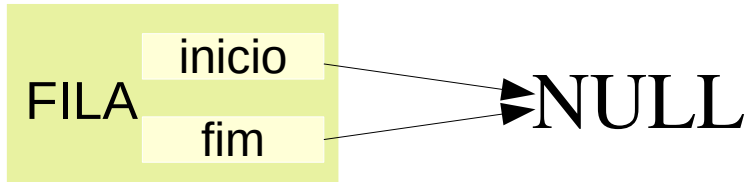


enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

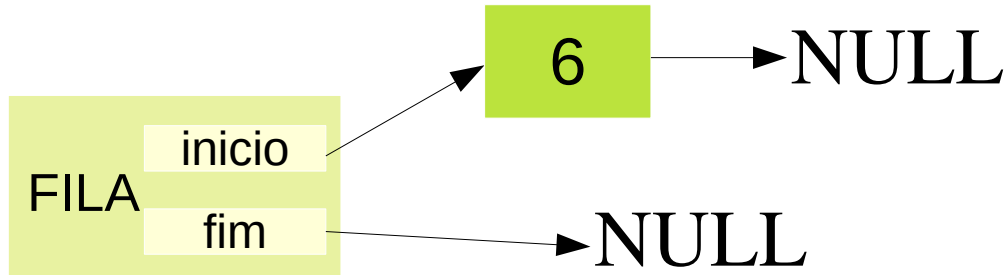
Tamanho = 0
```



7. Enfileirar elementos 6,8,0,3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 0
```

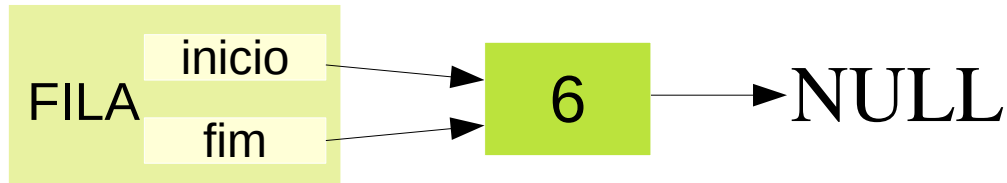


7. Enfileirar elementos 6,8,0,3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 0

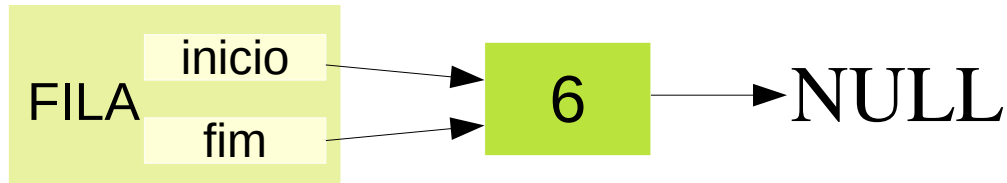


7. Enfileirar elementos 6,8,0,3

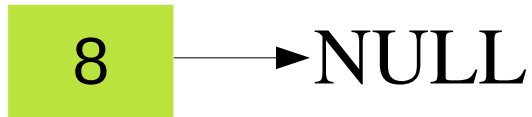
enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 1



7. Enfileirar elementos 6,8,0,3



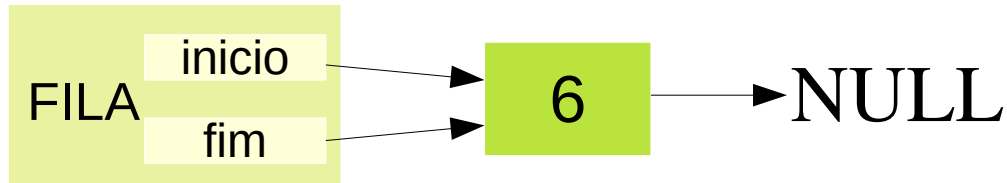
enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

Tamanho = 1

```



7. Enfileirar elementos 6,8,0,3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 1
```



7. Enfileirar elementos 6,8,0,3

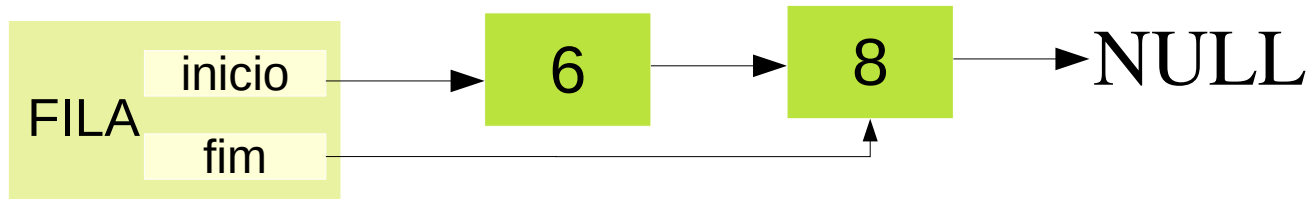
enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;

Tamanho = 1

```

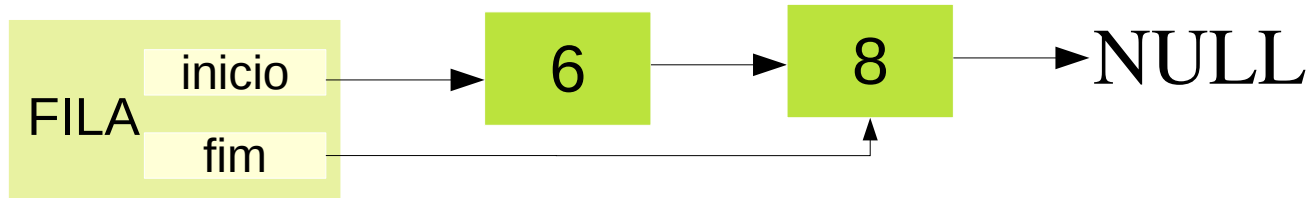


7. Enfileirar elementos 6,8,0,3

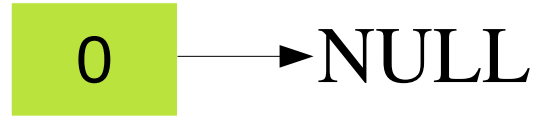
enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 2



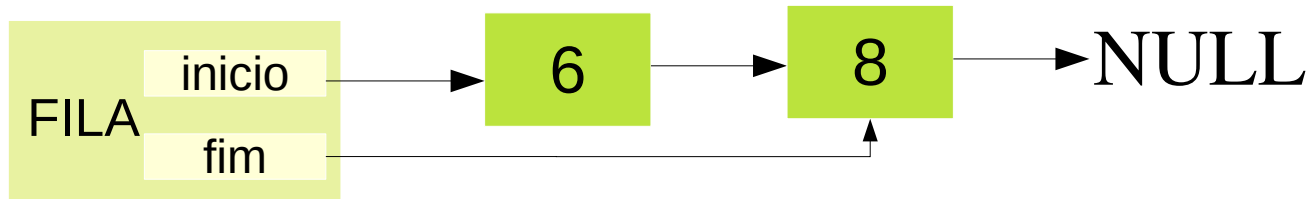
7. Enfileirar elementos 6,8,0,3



enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

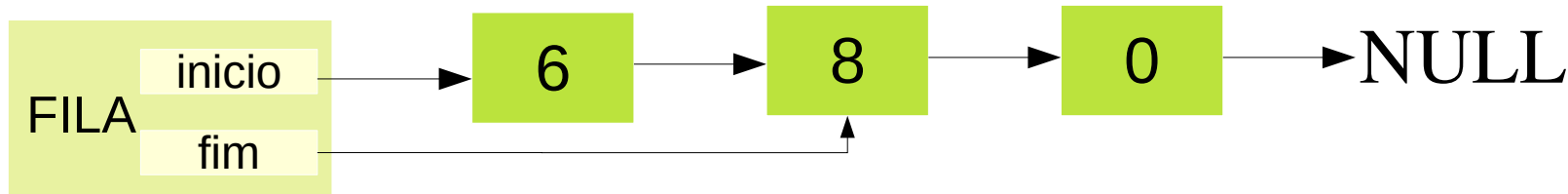
Tamanho = 2



7. Enfileirar elementos 6,8,0,3

enqueue(valor):

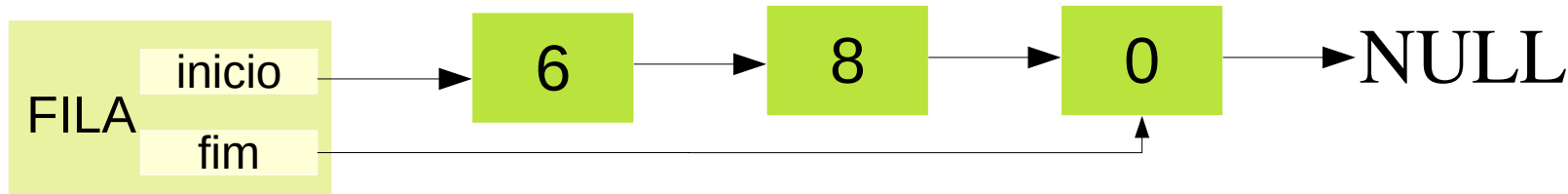
```
novo ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 2
```



7. Enfileirar elementos 6,8,0,3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 2
```

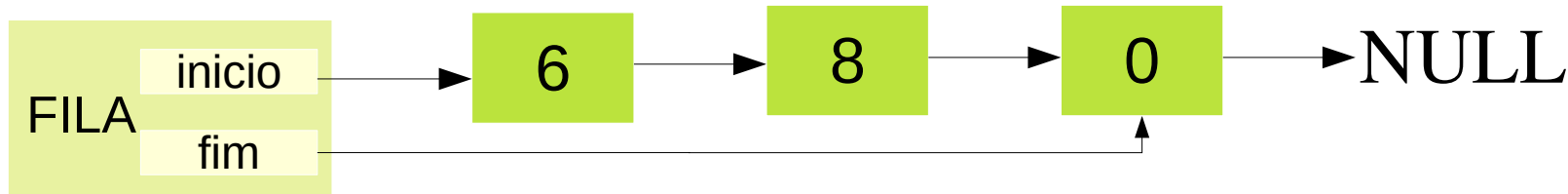


7. Enfileirar elementos 6,8,0,3

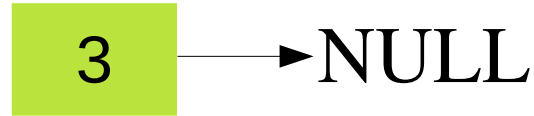
enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

Tamanho = 3

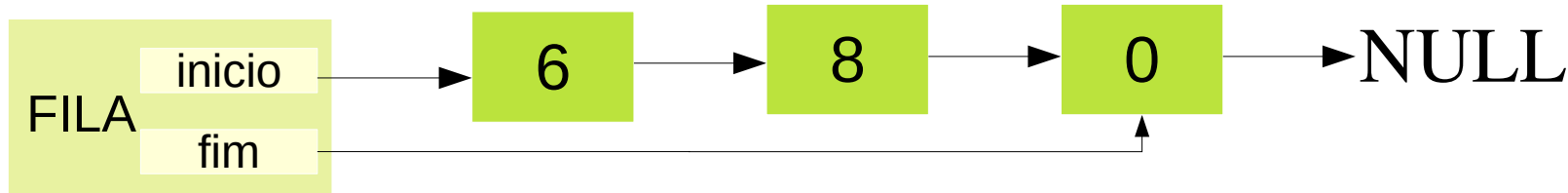


7. Enfileirar elementos 6,8,0,3



enqueue(valor):

```
novo ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 3
```



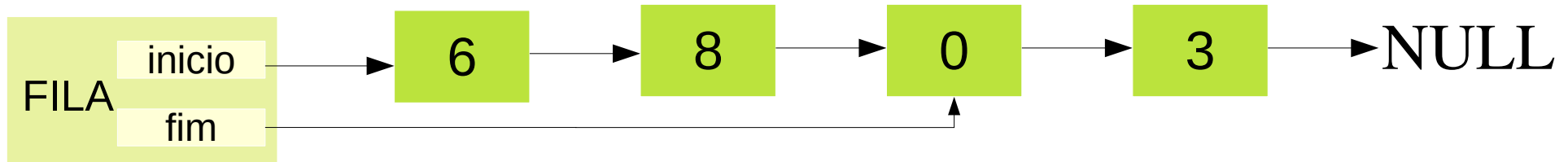
7. Enfileirar elementos 6,8,0,3

enqueue(valor):

```

novo ← criar_noh(valor);
se filaVazia()
    inicio ← novo;
senão
    fim.proximo ← novo;
fim ← novo;
tamanho++;
Tamanho = 3

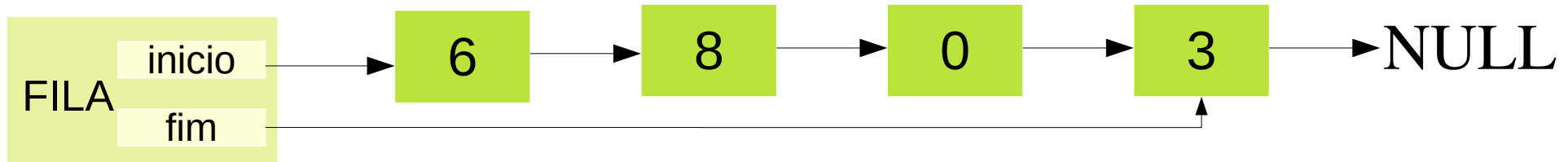
```



7. Enfileirar elementos 6,8,0,3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;  
Tamanho = 3
```

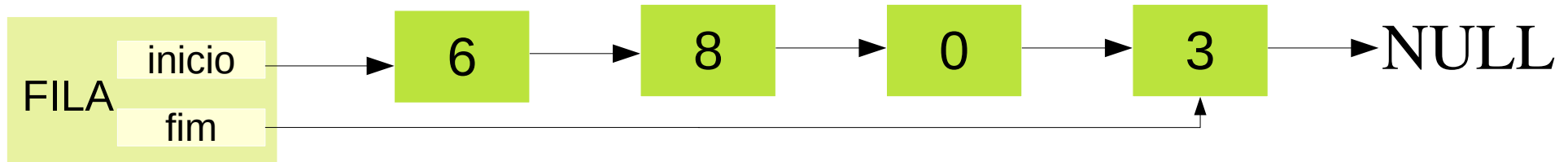


7. Enfileirar elementos 6,8,0,3

enqueue(valor):

```
novο ← criar_noh(valor);  
se filaVazia()  
    inicio ← novo;  
senão  
    fim.proximo ← novo;  
fim ← novo;  
tamanho++;
```

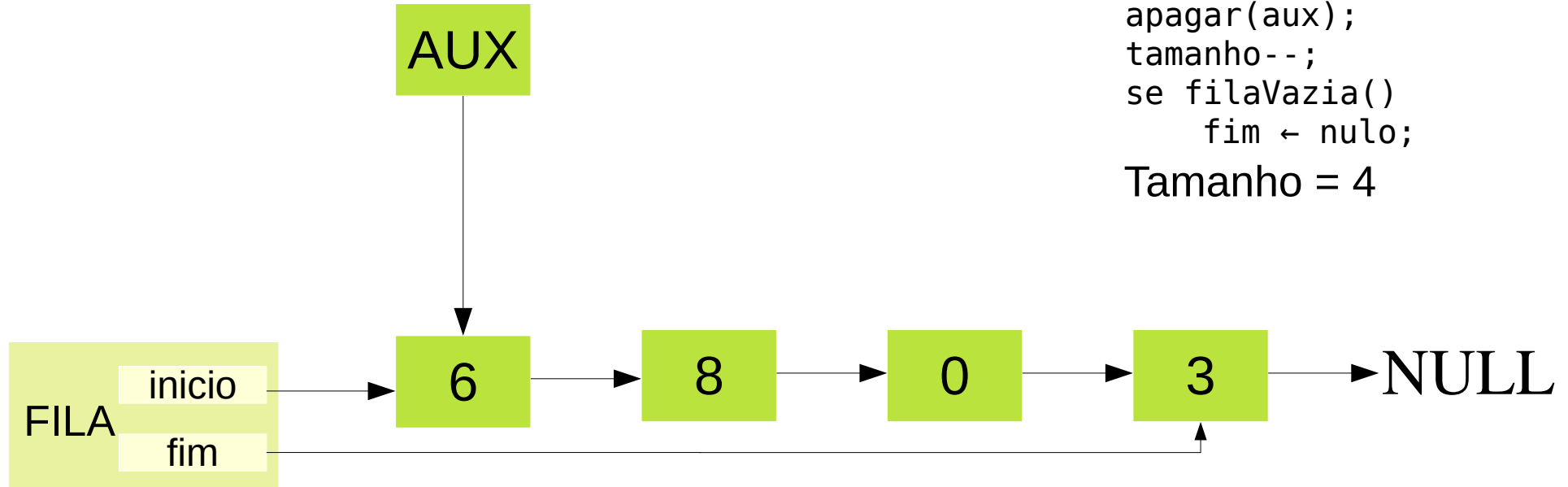
Tamanho = 4



8. Desenfileirar

dequeue():

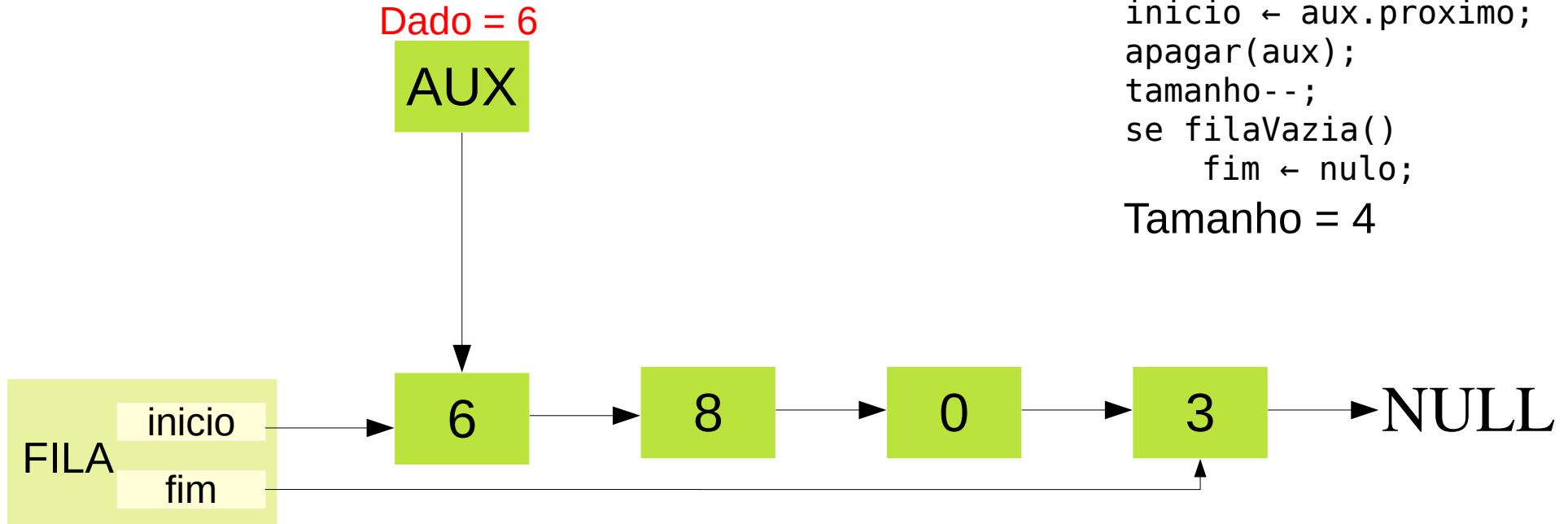
```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 4
```



8. Desenfileirar

dequeue():

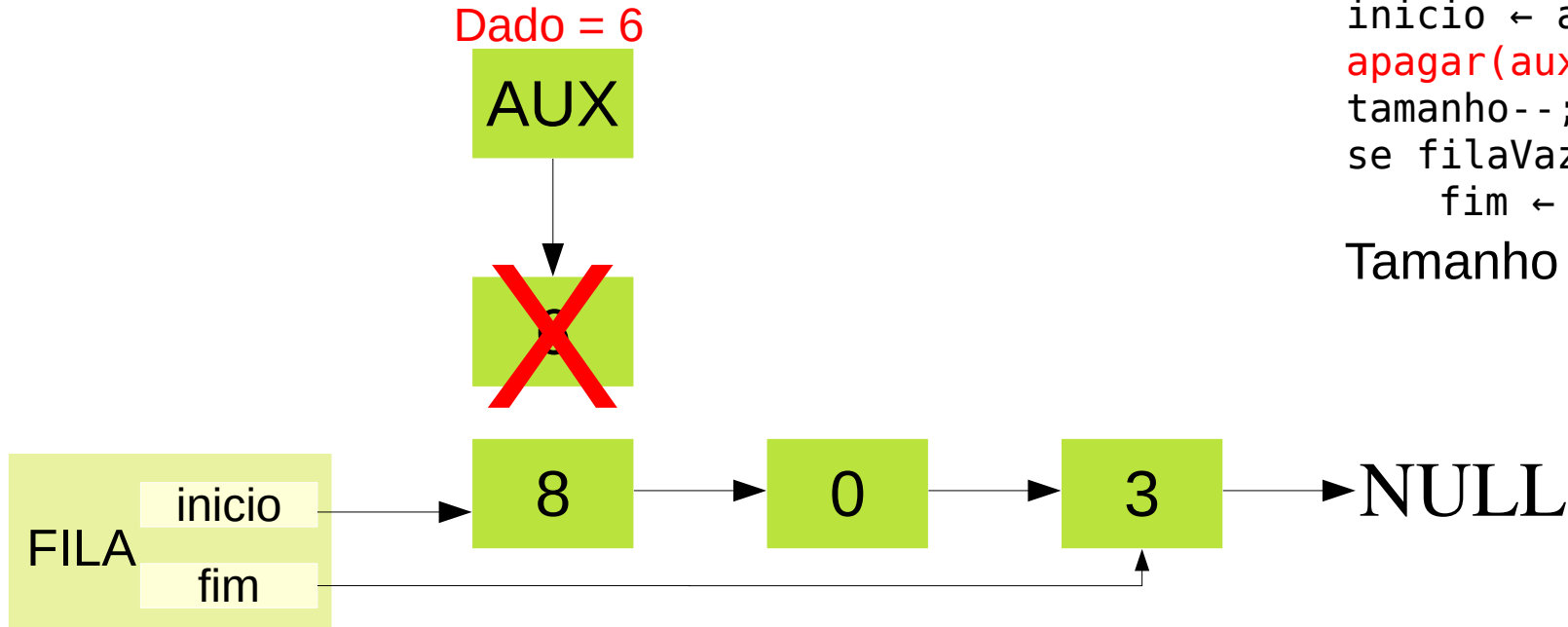
```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 4
```



8. Desenfileirar

dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;  
Tamanho = 4
```

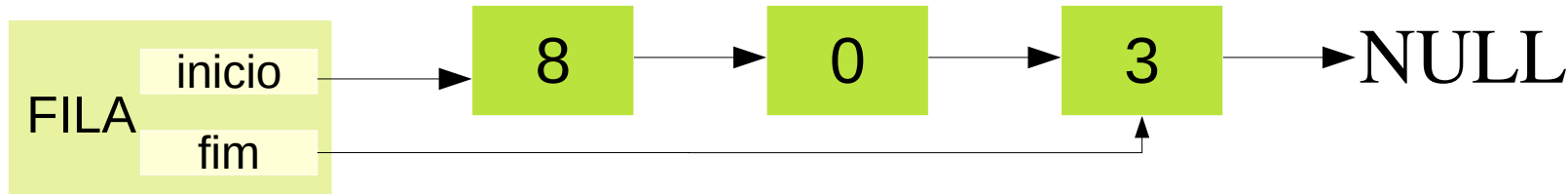


8. Desenfileirar

dequeue():

```
aux ← inicio;  
dado ← aux.valor;  
inicio ← aux.proximo;  
apagar(aux);  
tamanho--;  
se filaVazia()  
    fim ← nulo;
```

Tamanho = 3



Fila resultante Tamanho = 3

