



STANDARD TEMPLATE LIBRARY

VECTOR

ROTEIRO

- Arrays
- Vector
 - ✓ `push_back`
 - ✓ `size`

ARRAYS

- Array de inteiros com tamanho **MAX**:

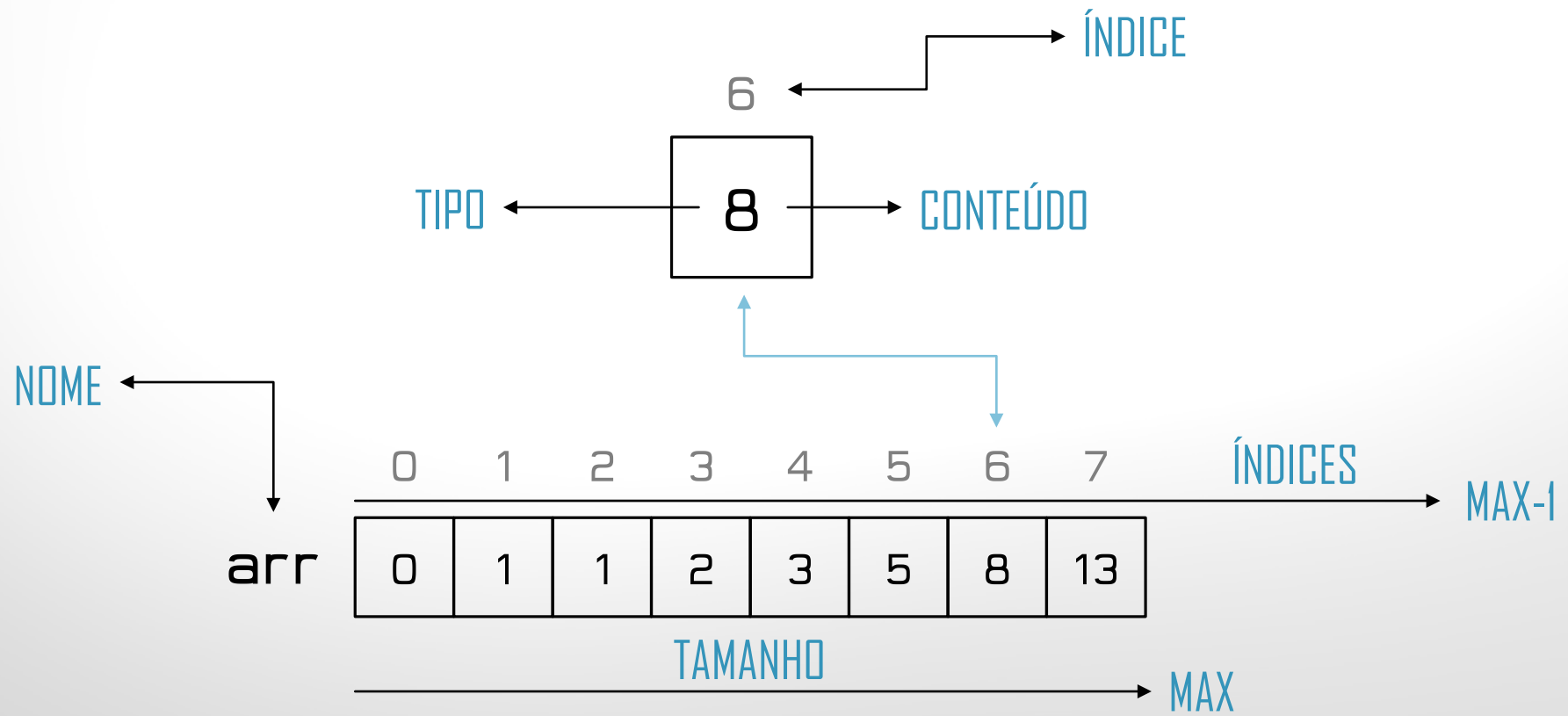
```
#define MAX 8
```

Diagram illustrating the components of the array declaration `int arr[MAX];`:

- TIPO**: Points to the data type `int`.
- NOME**: Points to the array name `arr`.
- TAMANHO**: Points to the size `MAX`.

ARRAYS

- O que representa:



ARRAYS

- Definindo um valor para o array:

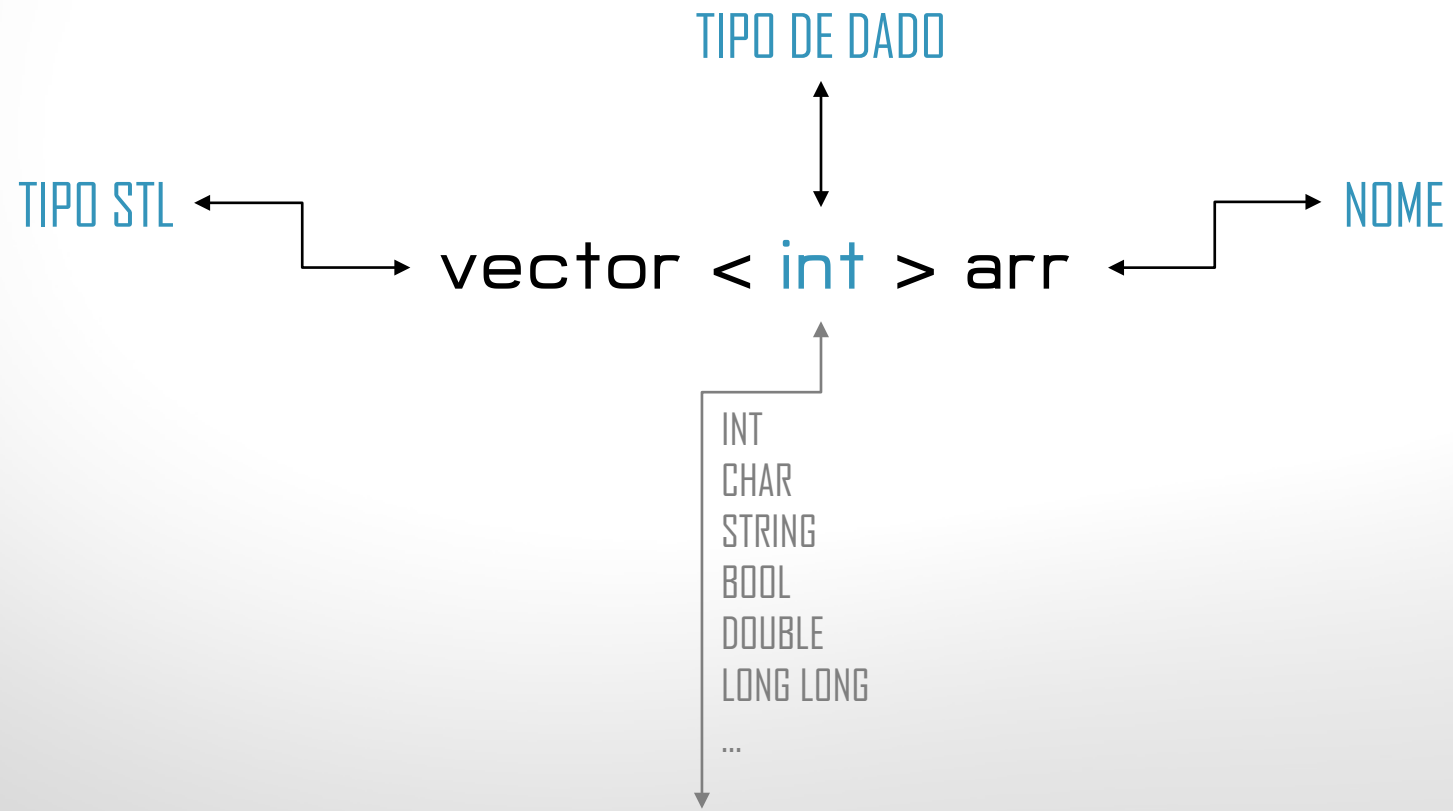
```
memset (arr, 0, sizeof (arr))
```

- Ordenando o array:

```
sort (arr, arr+N)
```

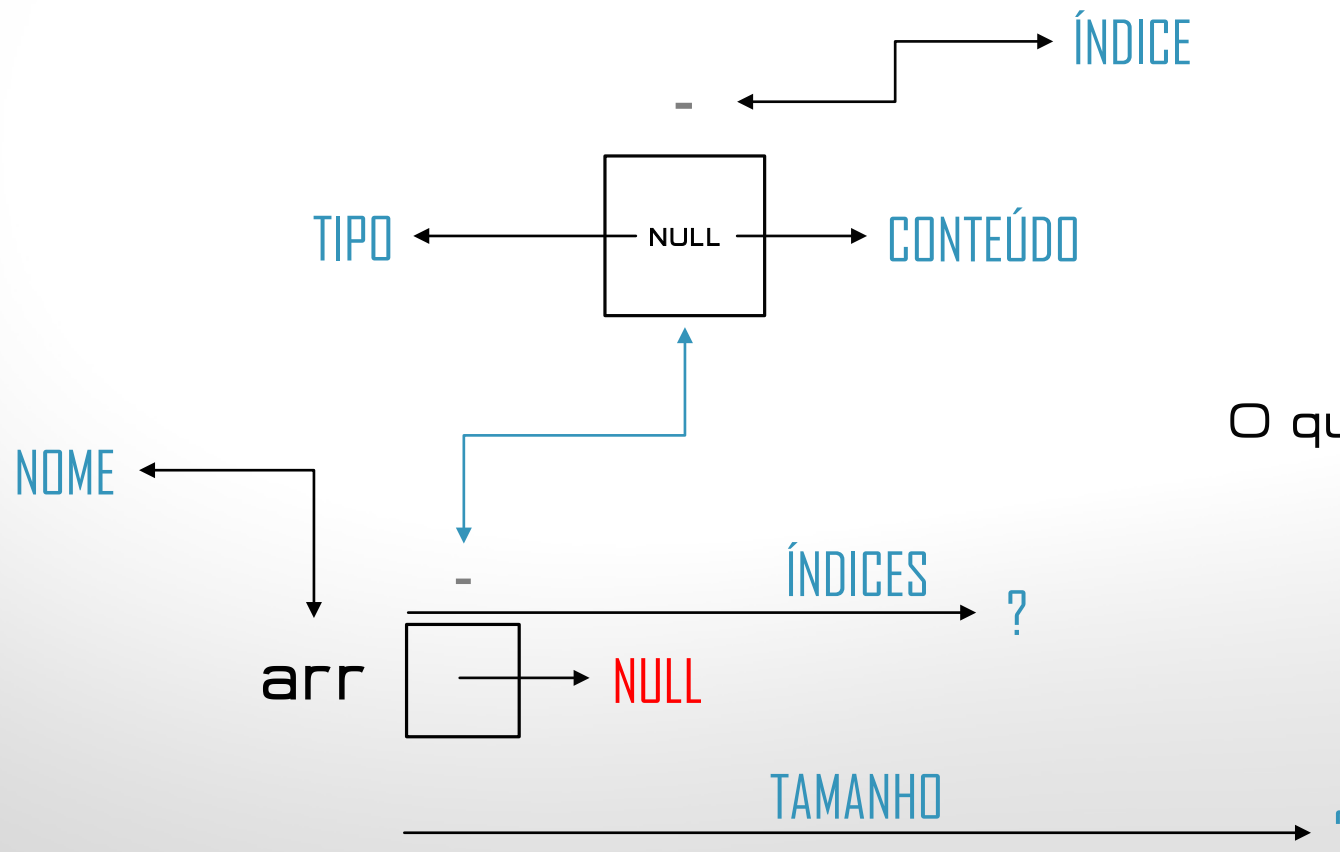
VECTOR

- Criando um vector:



VECTOR

- Como fica depois de criado:

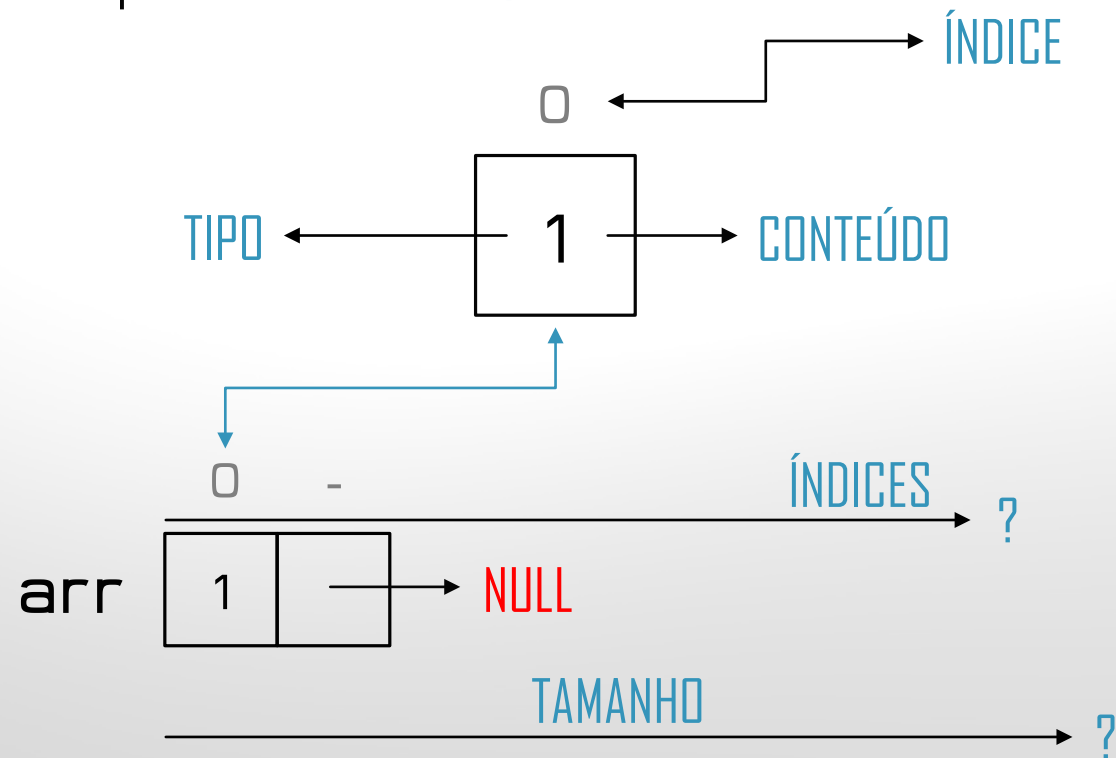


VECTOR

- Inserindo o valor 1:

`arr.push_back(1)`

- Como fica depois de inserir 1:

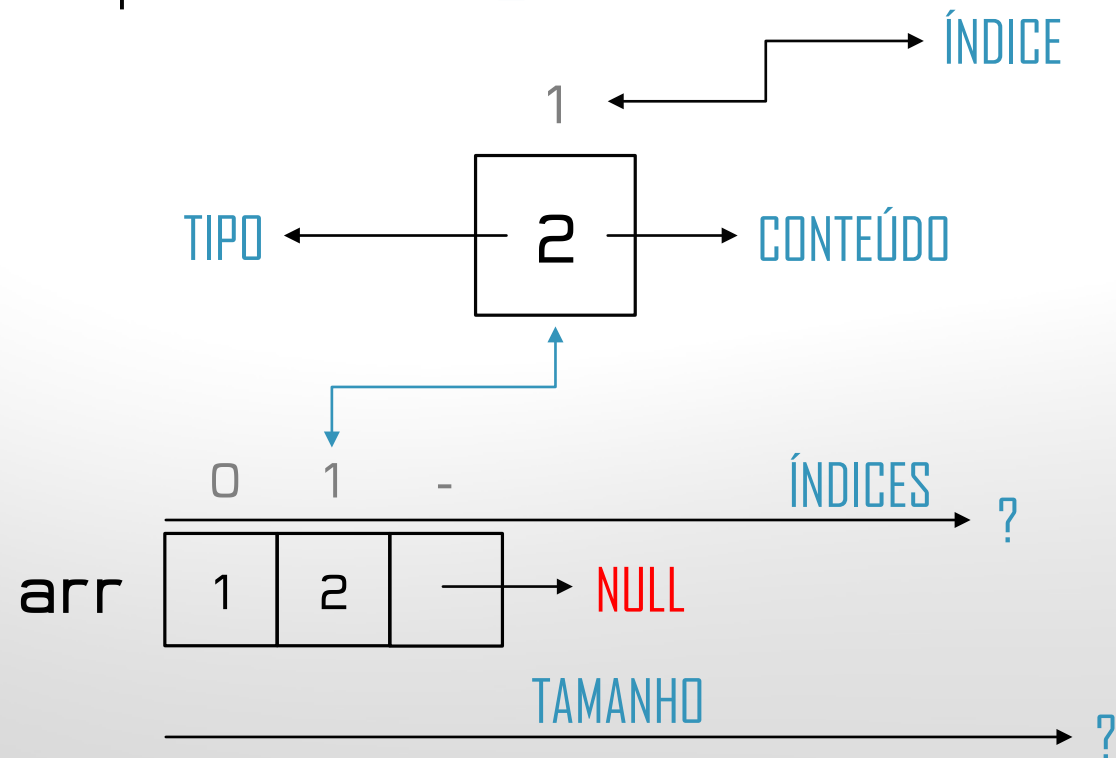


VECTOR

- Inserindo o valor 2:

```
arr.push_back(2)
```

- Como fica depois de inserir 2:

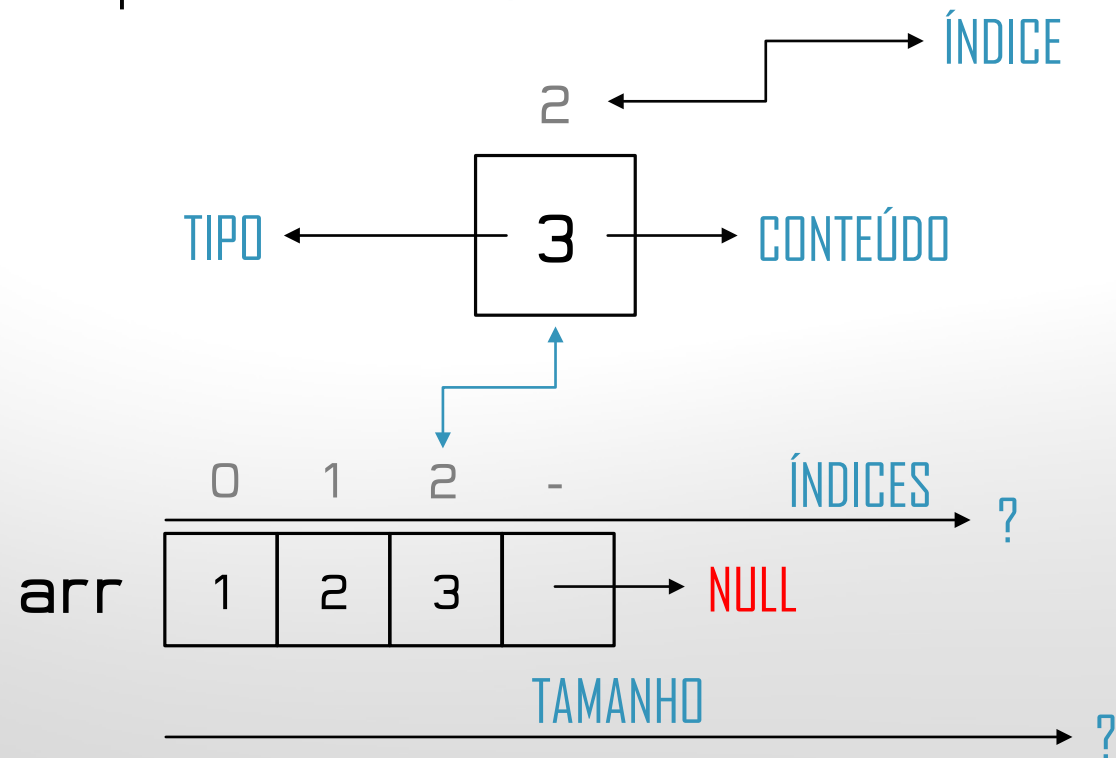


VECTOR

- Inserindo o valor **3**:

```
arr.push_back(3)
```

- Como fica depois de inserir 3:

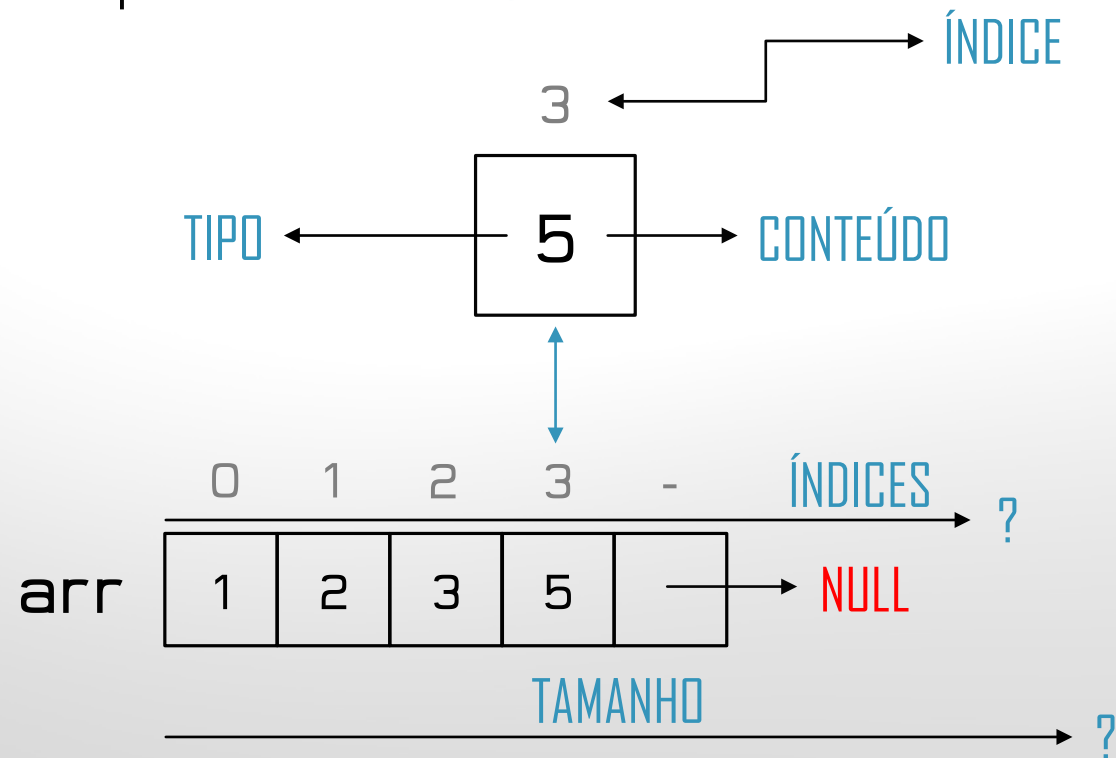


VECTOR

- Inserindo o valor 5:

```
arr.push_back(5)
```

- Como fica depois de inserir 5:



VECTOR



- Exemplo *push_back()*:

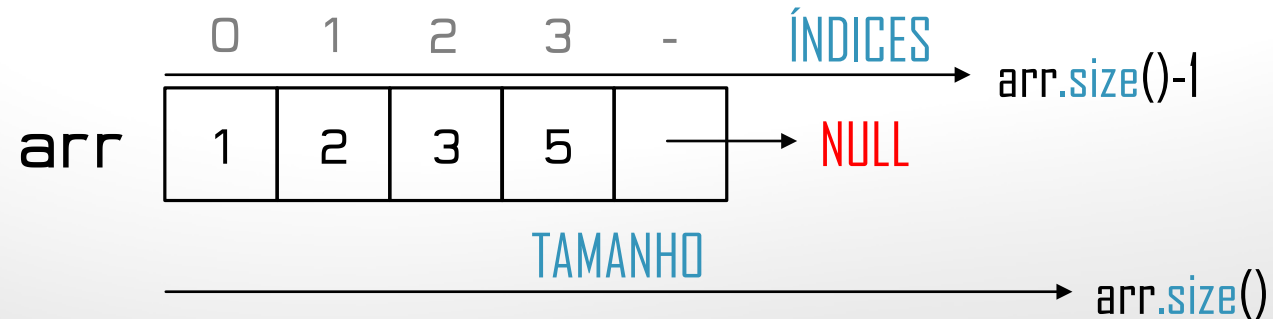
```
1  #include <bits/stdc++.h>
2
3  using namespace std;
4
5  int main() {
6
7      vector<int> arr; //criando o vector
8
9      arr.push_back(1); // inserindo valores
10     arr.push_back(2);
11     arr.push_back(3);
12     arr.push_back(5);
13
14     return 0;
15 }
16
17
18
```

VECTOR

- Para saber o tamanho:

`arr.size()`

- Exemplo:



VECTOR



- Exemplo *size()*:

```
1  #include <bits/stdc++.h>
2
3  using namespace std;
4
5  int main() {
6
7      vector<int> arr; //criando o vector
8
9      arr.push_back(1); // inserindo valores
10     arr.push_back(2);
11     arr.push_back(3);
12     arr.push_back(5);
13
14     for (int i = 0; i < arr.size(); i++) { // percorrendo o vector
15         printf("%d\n", arr[i]); // imprimindo o respectivo valor
16     }
17
18     return 0;
19 }
20
```