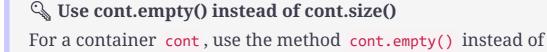
Size

Let's find out how we can check the size and capacity of our container.

For a container cont, you can check with cont.empty() if the container is empty. cont.size() returns the current number of elements, and cont.max_size() returns the maximum number of elements cont can have. The maximum number of elements is implementation defined.

```
// containerSize.cpp
#include <iostream>
#include <map>
#include <set>
#include <vector>
using namespace std;
int main(){
  vector<int> intVec{1, 2, 3, 4, 5, 6, 7, 8, 9};
  map<string, int> str2Int = {{"bart", 12345},
                              {"jenne", 34929}, {"huber", 840284}};
  set<double> douSet{3.14, 2.5};
  cout << intVec.empty() << endl; // false</pre>
  cout << str2Int.empty() << endl; // false</pre>
  cout << douSet.empty() << endl; // false</pre>
  cout << intVec.size() << endl; // 9</pre>
  cout << str2Int.size() << endl; // 3</pre>
  cout << douSet.size() << endl; // 2</pre>
  cout << intVec.max_size() << endl; // 4611686018427387903</pre>
  cout << str2Int.max_size() << endl; // 384307168202282325</pre>
  cout << douSet.max size() << endl; // 461168601842738790</pre>
  return 0;
}
```

Size of a container



```
(cont.size() == 0) to determine if the container is empty. First,
cont.empty() is in general faster than (const.size() == 0); second,
std::forward_list has no method size().
```