

```
1  #include "Inventory.h"
2
3  Inventory::Inventory()
4  {
5      this->cap = 10;
6      this->nrOfItems = 0;
7      this->itemArr = new Item *[cap];
8
9  }
10
11
12 Inventory::~Inventory()
13 {
14     for (size_t i = 0; i < this->nrOfItems; i++)
15     {
16         delete this->itemArr[i];
17     }
18     delete[] itemArr;
19 }
20
21 void Inventory::addItem(const Item& item)
22 {
23     if (this->nrOfItems >= this->cap)
24     {
25         expand();
26     }
27
28     this->itemArr[this->nrOfItems++] = new Item(item);
29 }
30
31 void Inventory::removeItem(int index)
32 {
33     // get to later
34 }
35
36
37 void Inventory::expand()
38 {
39     this->cap *= 2;
40
41     Item **tempArr = new Item * [this->cap];
42
43     for (size_t i = 0; i < this->nrOfItems; i++)
44     {
45         tempArr[i] = new Item(*this->itemArr[i]);
46     }
47
48     for (size_t i = 0; i < this->nrOfItems; i++)
49     {
50         delete this->itemArr[i];
51     }
52
53     delete[] this->itemArr;
54
55     this->itemArr = tempArr;
56
57     this->initialize(this->nrOfItems);
58 }
59
60 void Inventory::initialize(const int from)
61 {
62     for (size_t i = from; i < cap; i++)
```

```
63     {  
64         this->itemArr[i] = nullptr;  
65     }  
66  
67  
68 }
```