

Module9_Inventory_Wigdan

The image displays two screenshots of an Online C++ 17 Compiler IDE, showing the development and execution of a C++ program for inventory management.

Top Screenshot: The code defines an `Item` class with `name` and `quantity` attributes. A `searchItem` function is implemented to find an item by name in an array. The `main` function initializes an inventory array and calls `searchItem` to find 'milk'.

```
1 #include <iostream>
2 #include <string>
3 using namespace std;
4
5 // Item class
6 class Item {
7 public:
8     string name;
9     int quantity;
10
11     Item() {
12         name = "";
13         quantity = 0;
14     }
15 };
16
17 // Function to search for an item by name
18 void searchItem(Item inventory[], int size, string searchName) {
19     bool found = false;
20     for (int i = 0; i < size; i++) {
21         if (inventory[i].name == searchName) {
22             cout << "Item found: " << inventory[i].name
23                 << ", Quantity: " << inventory[i].quantity << endl;
24             found = true;
25             break;
26         }
27     }
28     if (!found) {
29         cout << "Item not found." << endl;
30     }
31 }
32
33 int main() {
34     const int SIZE = 5; // Number of items
35     Item inventory[SIZE]; // Array of Item objects
36
37     // Input items
38     for (int i = 0; i < SIZE; i++) {
```

The output shows the results of the search for 'milk':

```
Enter name of item 1: bread
Enter quantity: 1
Enter name of item 2: apple
Enter quantity: 3
Enter name of item 3: milk
Enter quantity: 2
Enter name of item 4: water
Enter quantity: 6
Enter name of item 5: banana
Enter quantity: 6

Inventory List:
bread - 1
apple - 3
milk - 2
water - 6
banana - 6

Enter item name to search: milk
```

Bottom Screenshot: The code is updated to include input for items and a display of the inventory list. The `main` function now prompts the user to enter item names and quantities, and then displays the full inventory list before searching for 'milk'.

```
22     cout << "Item found: " << inventory[i].name
23         << ", Quantity: " << inventory[i].quantity << endl;
24     found = true;
25     break;
26 }
27
28 if (!found) {
29     cout << "Item not found." << endl;
30 }
31 }
32
33 int main() {
34     const int SIZE = 5; // Number of items
35     Item inventory[SIZE]; // Array of Item objects
36
37     // Input items
38     for (int i = 0; i < SIZE; i++) {
39         cout << "Enter name of item " << i+1 << ": ";
40         cin >> inventory[i].name;
41         cout << "Enter quantity: ";
42         cin >> inventory[i].quantity;
43     }
44
45     // Display all items
46     cout << "\nInventory List:\n";
47     for (int i = 0; i < SIZE; i++) {
48         cout << inventory[i].name << " - " << inventory[i].quantity << endl;
49     }
50
51     // Search for an item
52     string searchName;
53     cout << "\nEnter item name to search: ";
54     cin >> searchName;
55     searchItem(inventory, SIZE, searchName);
56
57     return 0;
58 }
59
```

The output shows the inventory list and the search result for 'milk':

```
Enter name of item 1: bread
Enter quantity: 1
Enter name of item 2: apple
Enter quantity: 3
Enter name of item 3: milk
Enter quantity: 2
Enter name of item 4: water
Enter quantity: 6
Enter name of item 5: banana
Enter quantity: 6

Inventory List:
bread - 1
apple - 3
milk - 2
water - 6
banana - 6

Enter item name to search: milk
```