

```
#include <iostream>
```

```
#include <string>
```

```
using namespace std;
```

```
class InventoryItem {
```

```
public:
```

```
    int itemID;
```

```
    string itemName;
```

```
    int quantity;
```

```
    int warrantyPeriod;
```

```
    InventoryItem() {}
```

```
    InventoryItem(int id, string name, int qty, int warranty)
```

```
        : itemID(id), itemName(name), quantity(qty), warrantyPeriod(warranty) {}
```

```
    void display() {
```

```
        cout << "Item ID: " << itemID << ", Name: " << itemName
```

```
            << ", Quantity: " << quantity << ", Warranty: " << warrantyPeriod << " years" << endl;
```

```
    }
```

```
};
```

```
class Inventory {
```

```
private:
```

```
    InventoryItem items[10];
```

```
int itemCount;

public:

Inventory() : itemCount(0) {}

void addItem(int id, string name, int qty, int warranty) {
    if (itemCount >= 10) {
        cout << "Inventory full!" << endl;
        return;
    }
    items[itemCount++] = InventoryItem(id, name, qty, warranty);
}

void displayInventory() {
    cout << "\nCurrent Inventory:" << endl;
    for (int i = 0; i < itemCount; i++) {
        items[i].display();
    }
}

void findItem(int id) {
    for (int i = 0; i < itemCount; i++) {
        if (items[i].itemID == id) {
            cout << "Found Item - ";
            items[i].display();
            return;
        }
    }
}
```

```

    }

    cout << "Item with ID " << id << " not found." << endl;
}

void removeItem(int id) {
    for (int i = 0; i < itemCount; i++) {
        if (items[i].itemID == id) {
            cout << "Removing Item - ";
            items[i].display();
            for (int j = i; j < itemCount - 1; j++) {
                items[j] = items[j + 1];
            }
            itemCount--;
            return;
        }
    }
    cout << "Item with ID " << id << " not found." << endl;
}

};

```

```

int main() {
    Inventory inventory;

    inventory.addItem(101, "Laptop", 50, 2);
    inventory.addItem(102, "Monitor", 30, 3);

    inventory.displayInventory();
}

```

```
inventory.findItem(101);  
inventory.removeItem(102);  
inventory.displayInventory();  
  
return 0;  
}
```