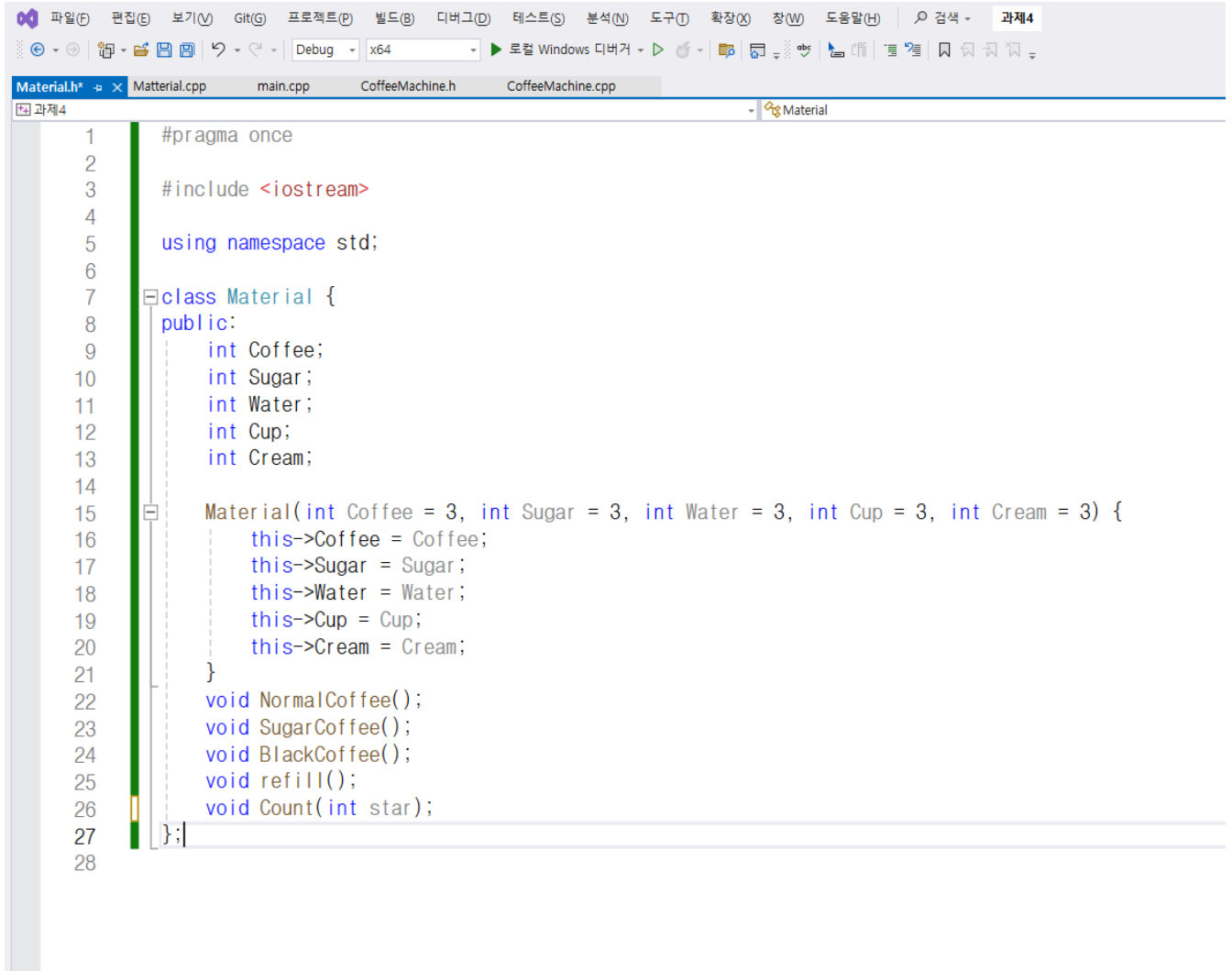
HW #4 교재 p586 12번
커피 자판기 시뮬레이터

2023. 11. 27(월)

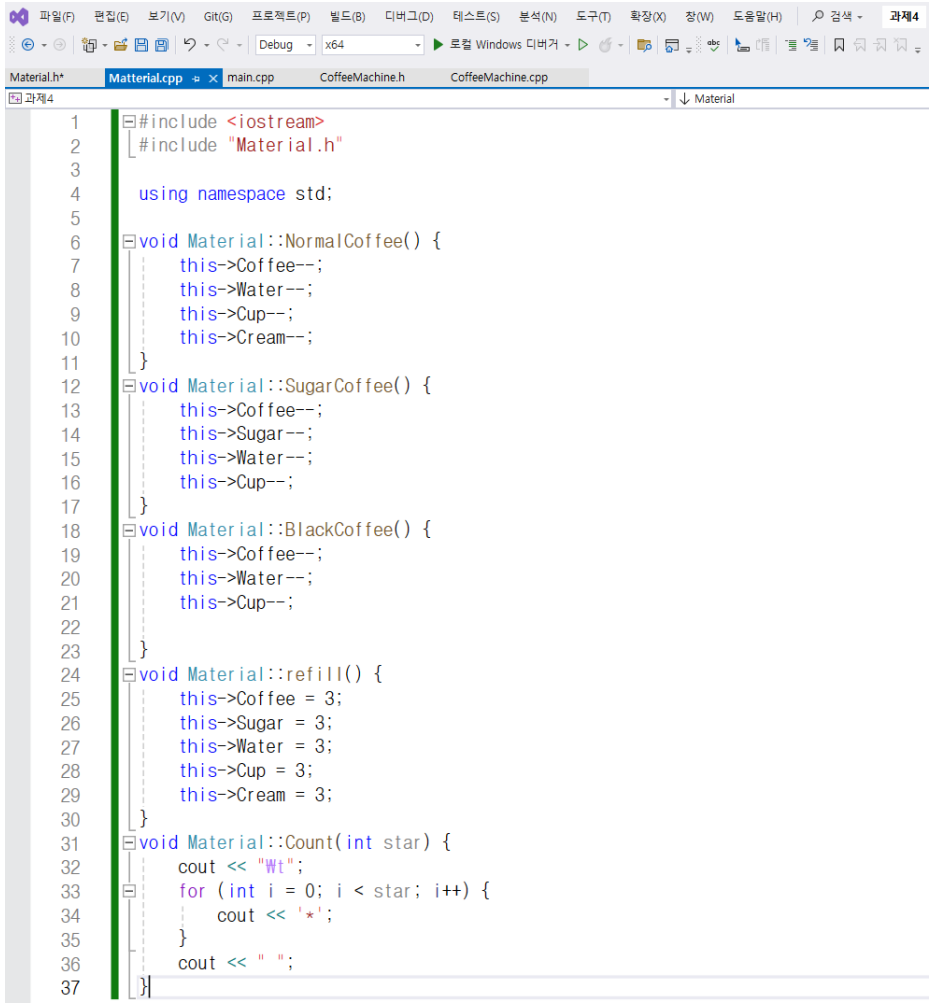
16조 이수영, 원준서

목차

[원] Material.h

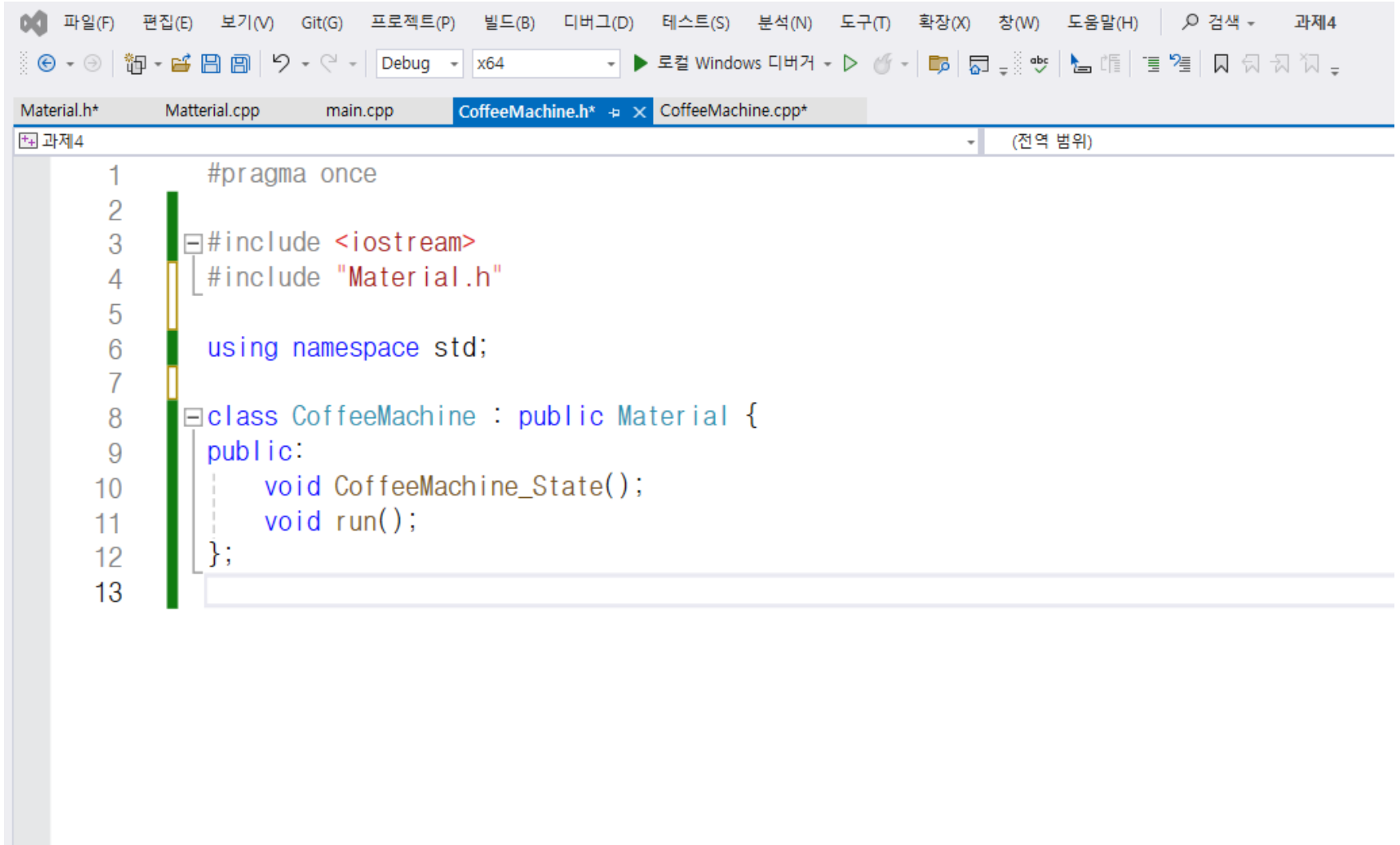

파일(F) 편집(E) 보기(V) Git(G) 프로젝트(P) 빌드(B) 디버그(D) 테스트(S) 분석(N) 도구(T) 확장(X) 창(W) 도움말(H) 검색 과제4
Debug x64 로컬 Windows 디버거
Material.h* Matterial.cpp main.cpp CoffeeMachine.h CoffeeMachine.cpp
과제4 Material
#pragma once
#include <iostream>
using namespace std;
class Material {
public:
int Coffee;
int Sugar;
int Water;
int Cup;
int Cream;
Material(int Coffee = 3, int Sugar = 3, int Water = 3, int Cup = 3, int Cream = 3) {
this->Coffee = Coffee;
this->Sugar = Sugar;
this->Water = Water;
this->Cup = Cup;
this->Cream = Cream;
}
void NormalCoffee();
void SugarCoffee();
void BlackCoffee();
void refill();
void Count(int star);
};

[원] Material.cpp

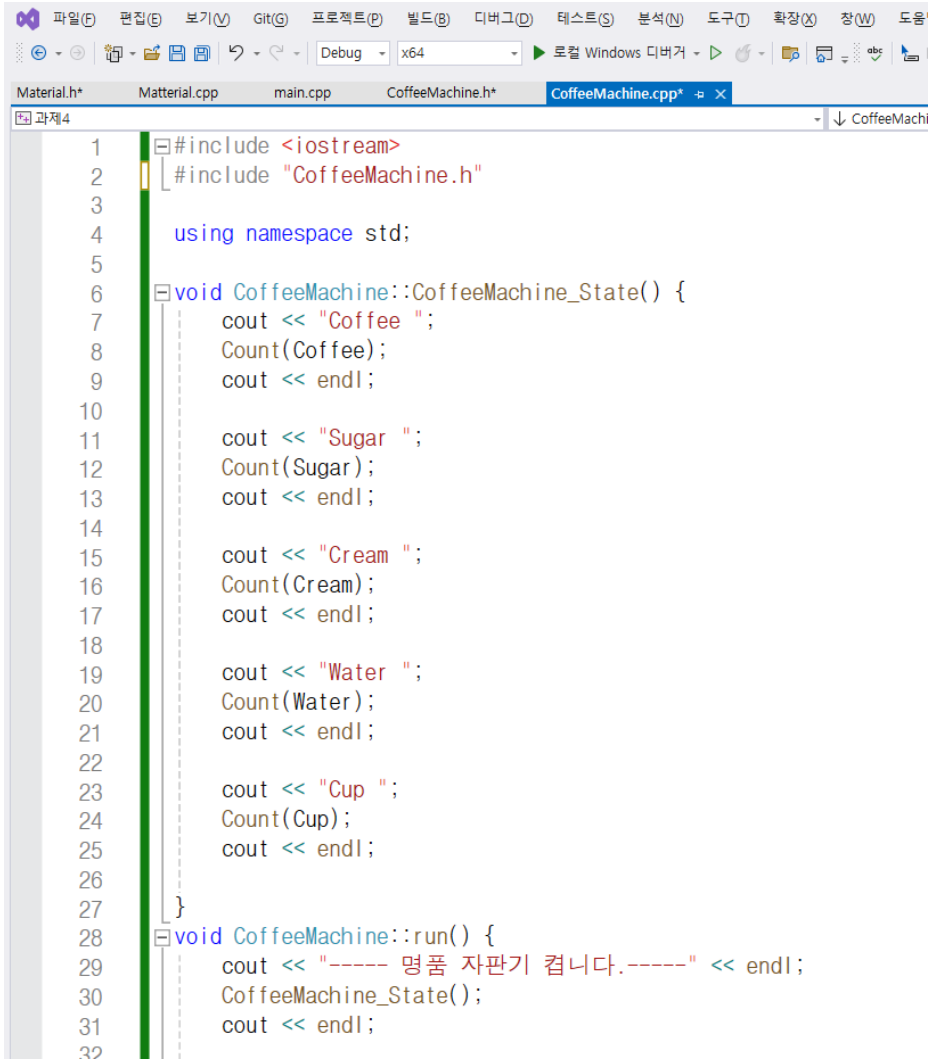



```cpp
#include <iostream>
#include "Material.h"

using namespace std;

void Material::NormalCoffee() {
    this->Coffee--;
    this->Water--;
    this->Cup--;
    this->Cream--;
}
void Material::SugarCoffee() {
    this->Coffee--;
    this->Sugar--;
    this->Water--;
    this->Cup--;
}
void Material::BlackCoffee() {
    this->Coffee--;
    this->Water--;
    this->Cup--;

}
void Material::refill() {
    this->Coffee = 3;
    this->Sugar = 3;
    this->Water = 3;
    this->Cup = 3;
    this->Cream = 3;
}
void Material::Count(int star) {
    cout << "Wt";
    for (int i = 0; i < star; i++) {
        cout << '*';
    }
    cout << " ";
}
```

[원] CoffeeMachine.h



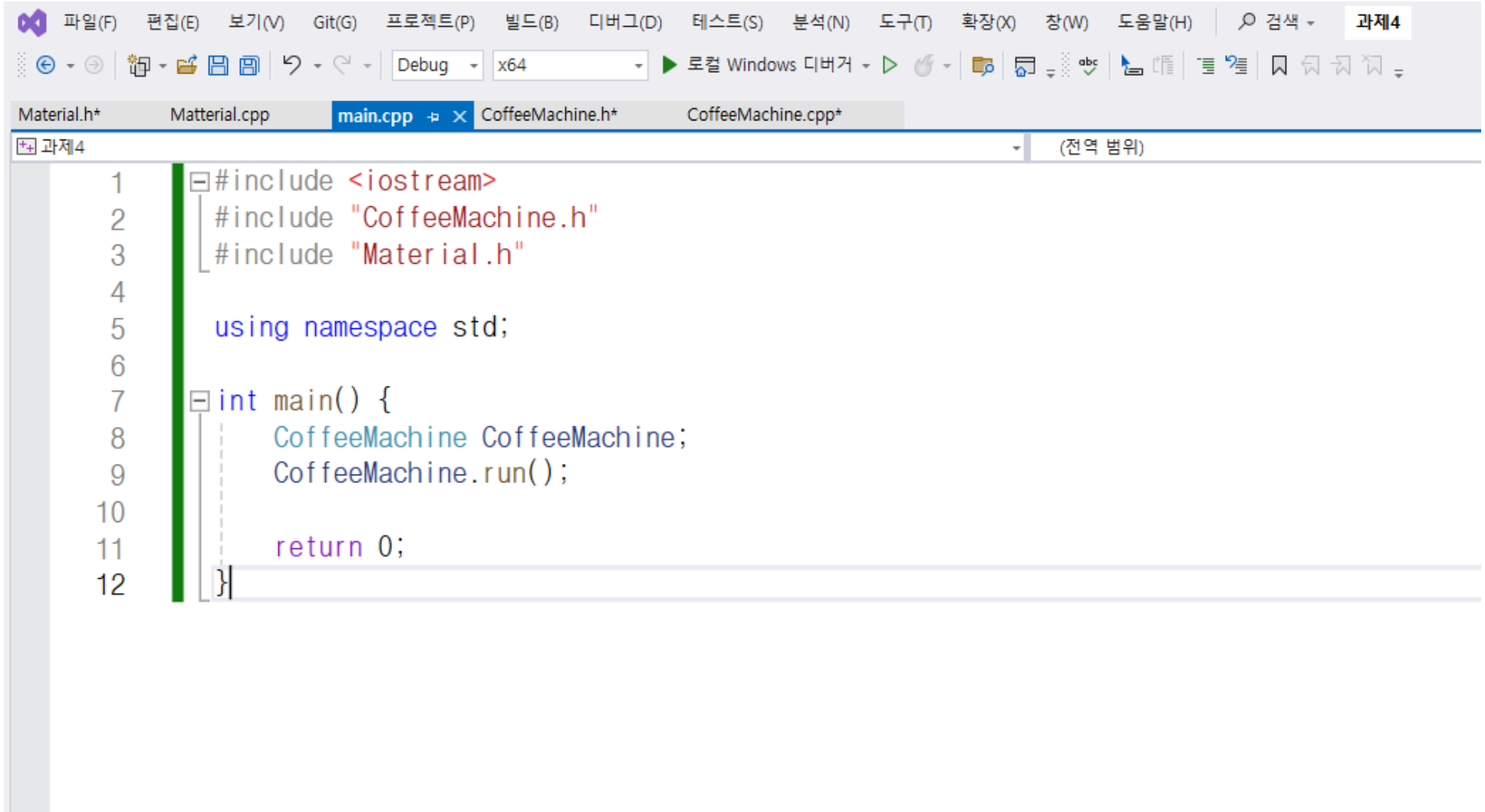
[원] CoffeeMachine.cpp (1/2)



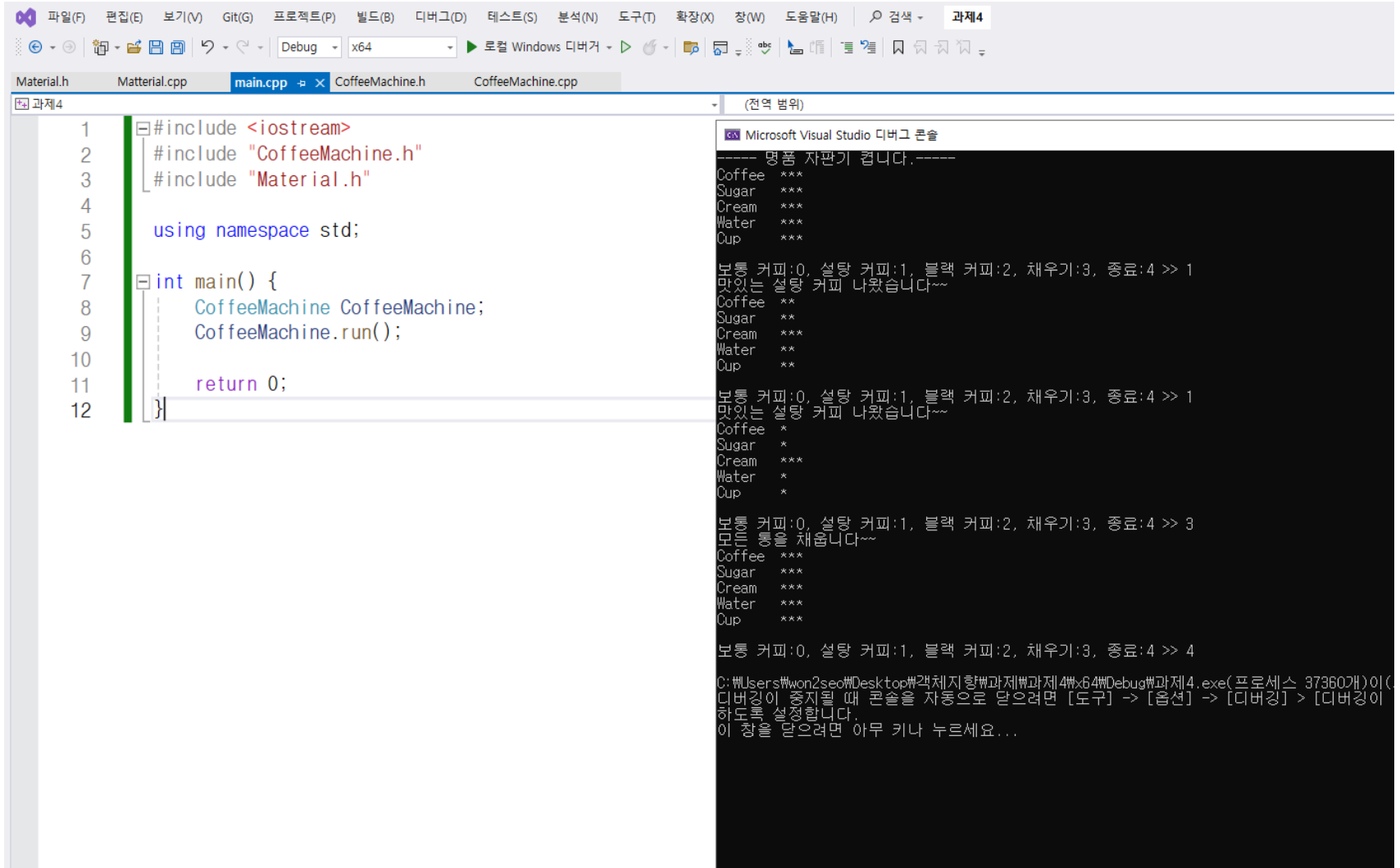
[원] CoffeeMachine.cpp (2/2)

```
32
33      int num;
34      while (true) {
35          cout << "보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4 >> ";
36          cin >> num;
37          switch (num) {
38          case 0:
39              cout << "맛있는 보통 커피 나왔습니다~~" << endl;
40              NormalCoffee();
41              CoffeeMachine_State();
42              cout << endl;
43              break;
44          case 1:
45              cout << "맛있는 설탕 커피 나왔습니다~~" << endl;
46              SugarCoffee();
47              CoffeeMachine_State();
48              cout << endl;
49              break;
50          case 2:
51              cout << "맛있는 블랙 커피 나왔습니다~~" << endl;
52              BlackCoffee();
53              CoffeeMachine_State();
54              cout << endl;
55              break;
56          case 3:
57              cout << "모든 통을 채웁니다~~" << endl;
58              refill();
59              CoffeeMachine_State();
60              cout << endl;
61              break;
62
63          case 4:
64              return;
65          }
66      }
67  }
```

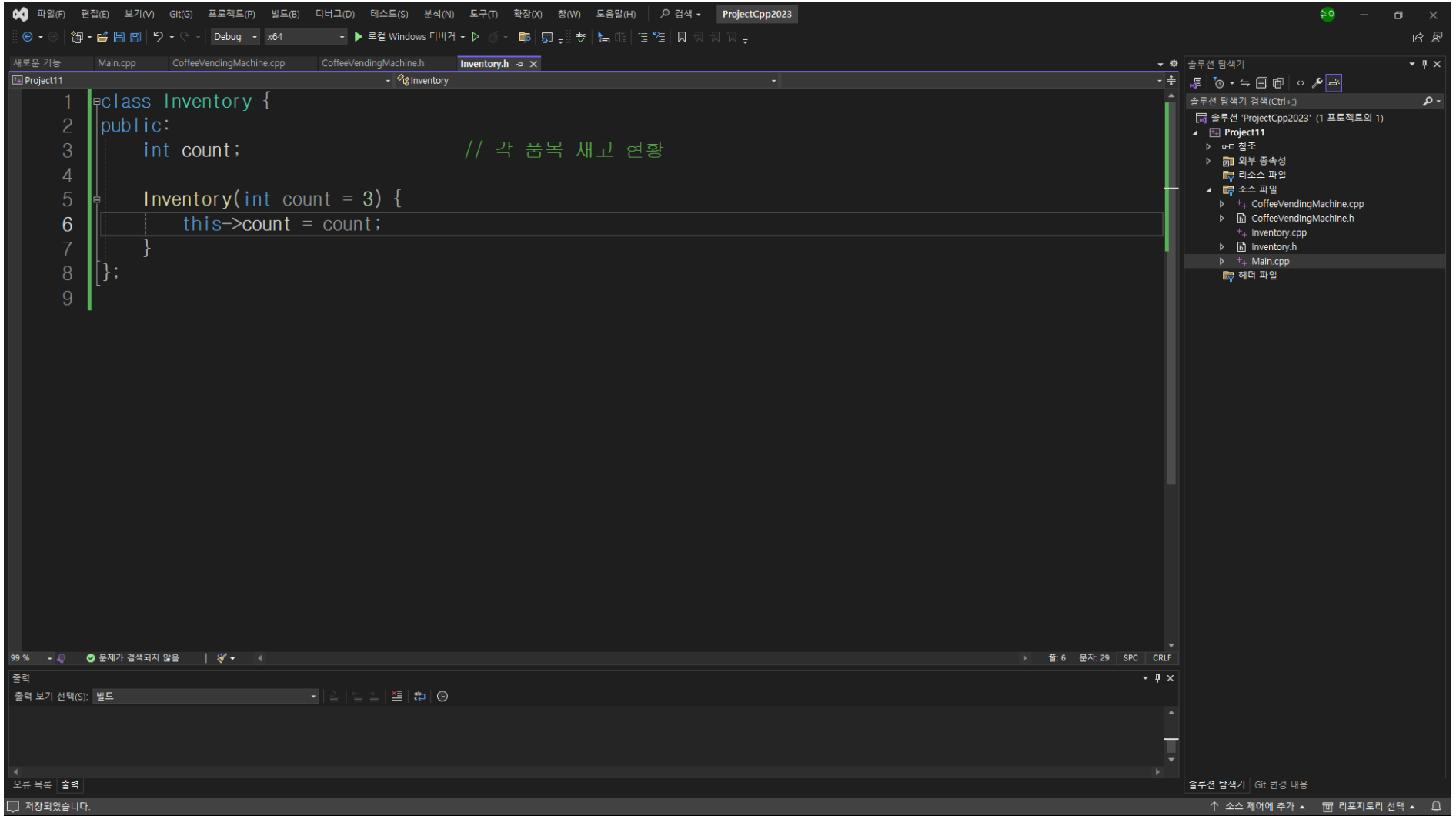
[원] main.cpp


파일(F) 편집(E) 보기(V) Git(G) 프로젝트(P) 빌드(B) 디버그(D) 테스트(S) 분석(N) 도구(T) 확장(X) 창(W) 도움말(H) 검색 과제4
Debug x64 로컬 Windows 디버거
Material.h* Matterial.cpp main.cpp CoffeeMachine.h* CoffeeMachine.cpp*
과제4 (전역 범위)
1 #include <iostream>
2 #include "CoffeeMachine.h"
3 #include "Material.h"
4
5 using namespace std;
6
7 int main() {
8 CoffeeMachine CoffeeMachine;
9 CoffeeMachine.run();
10
11 return 0;
12 }

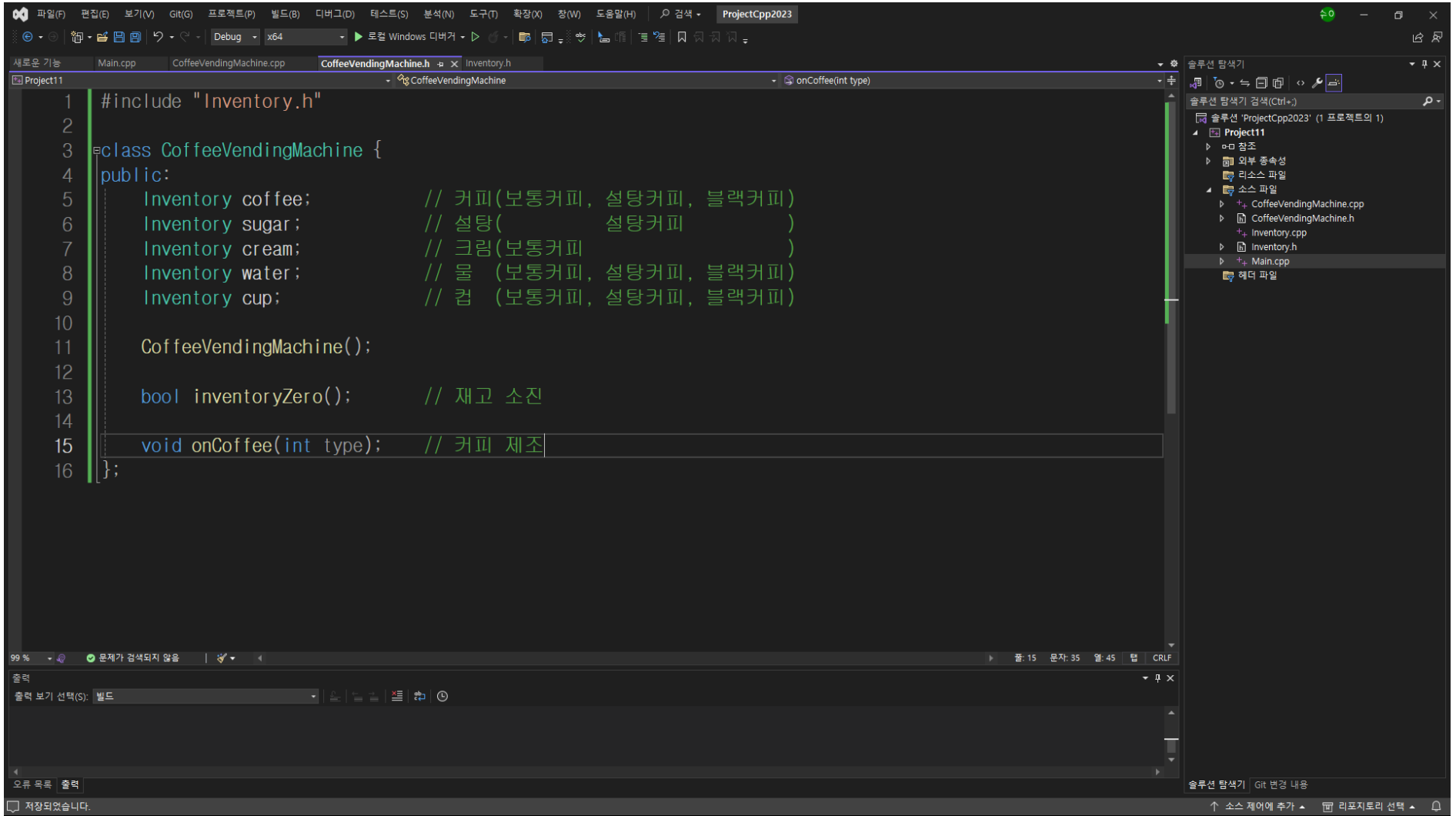
[원] 실행결과


파일(F) 편집(E) 보기(V) Git(G) 프로젝트(P) 빌드(B) 디버그(D) 테스트(S) 분석(N) 도구(T) 확장(X) 창(W) 도움말(H) 검색 과제4
Debug x64 로컬 Windows 디버거
Material.h Matterial.cpp main.cpp CoffeeMachine.h CoffeeMachine.cpp
과제4 (전역 범위)
1 #include <iostream>
2 #include "CoffeeMachine.h"
3 #include "Material.h"
4
5 using namespace std;
6
7 int main() {
8 CoffeeMachine CoffeeMachine;
9 CoffeeMachine.run();
10
11 return 0;
12 }
Microsoft Visual Studio 디버그 콘솔
----- 명품 자판기 입니다.-----
Coffee ***
Sugar ***
Cream ***
Water ***
Cup ***
보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4 >> 1
맛있는 설탕 커피 나왔습니다~~
Coffee **
Sugar **
Cream ***
Water **
Cup **
보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4 >> 1
맛있는 설탕 커피 나왔습니다~~
Coffee *
Sugar *
Cream ***
Water *
Cup *
보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4 >> 3
모든 통을 채웁니다~~
Coffee ***
Sugar ***
Cream ***
Water ***
Cup ***
보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4 >> 4
C:₩Users₩won2seo₩Desktop₩객체지향₩과제₩과제4₩x64₩Debug₩과제4.exe(프로세스 37360개)이(
디버깅이 중지될 때 콘솔을 자동으로 닫으려면 [도구] -> [옵션] -> [디버깅] > [디버깅이
하도록 설정합니다.
이 창을 닫으려면 아무 키나 누르세요...

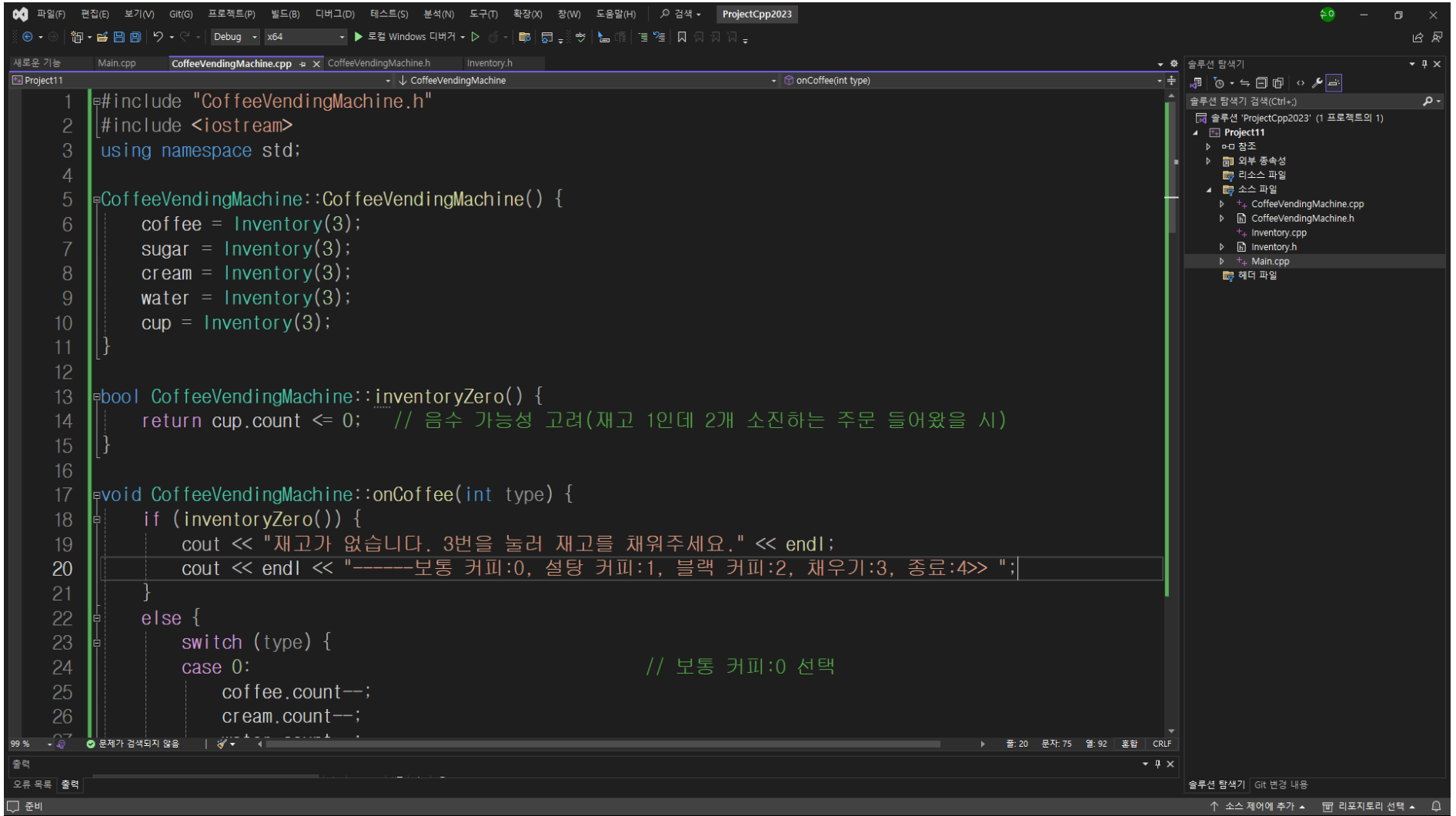
[01] Inventory.h



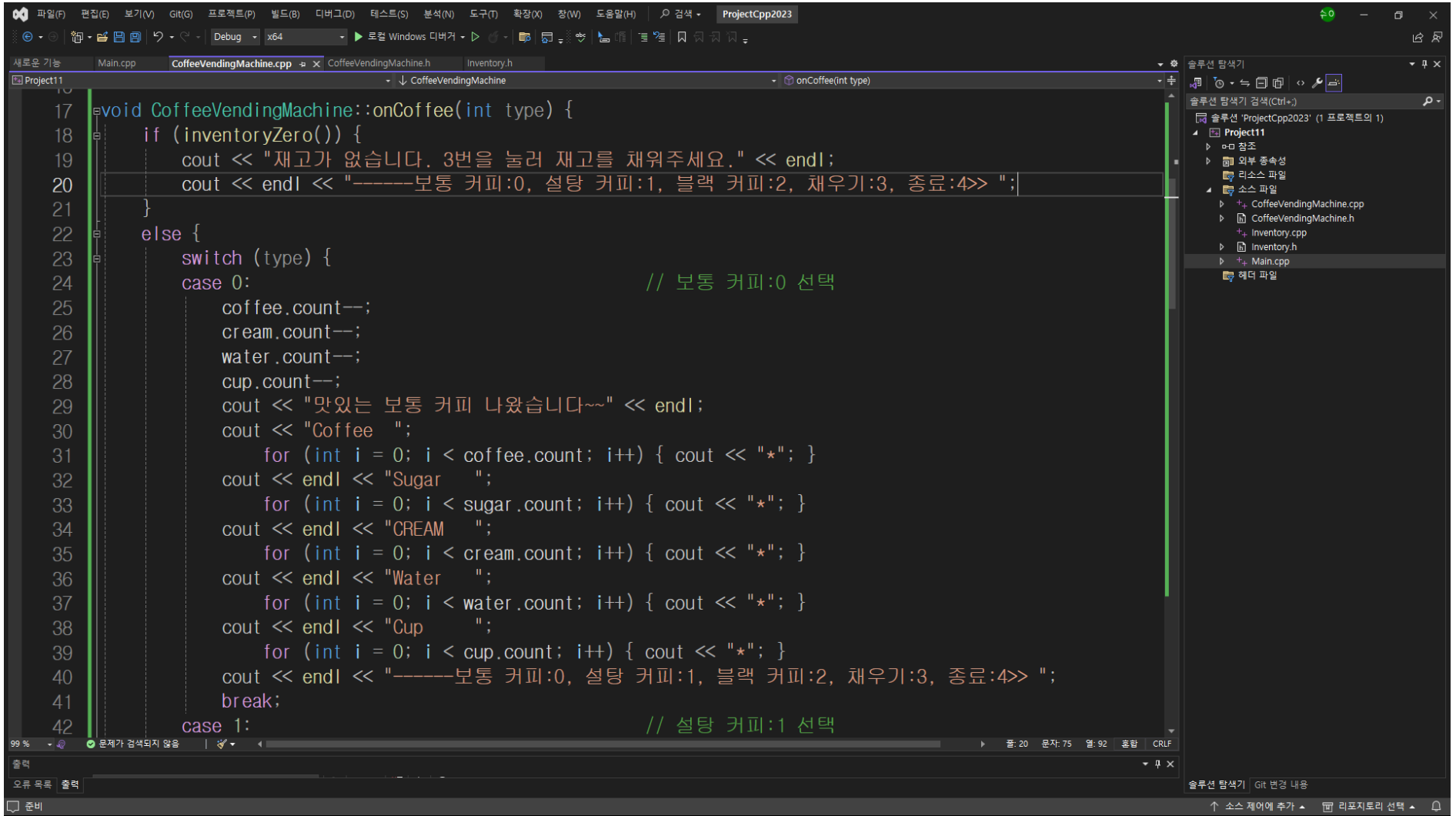
[01] CoffeeVendingMachine.h



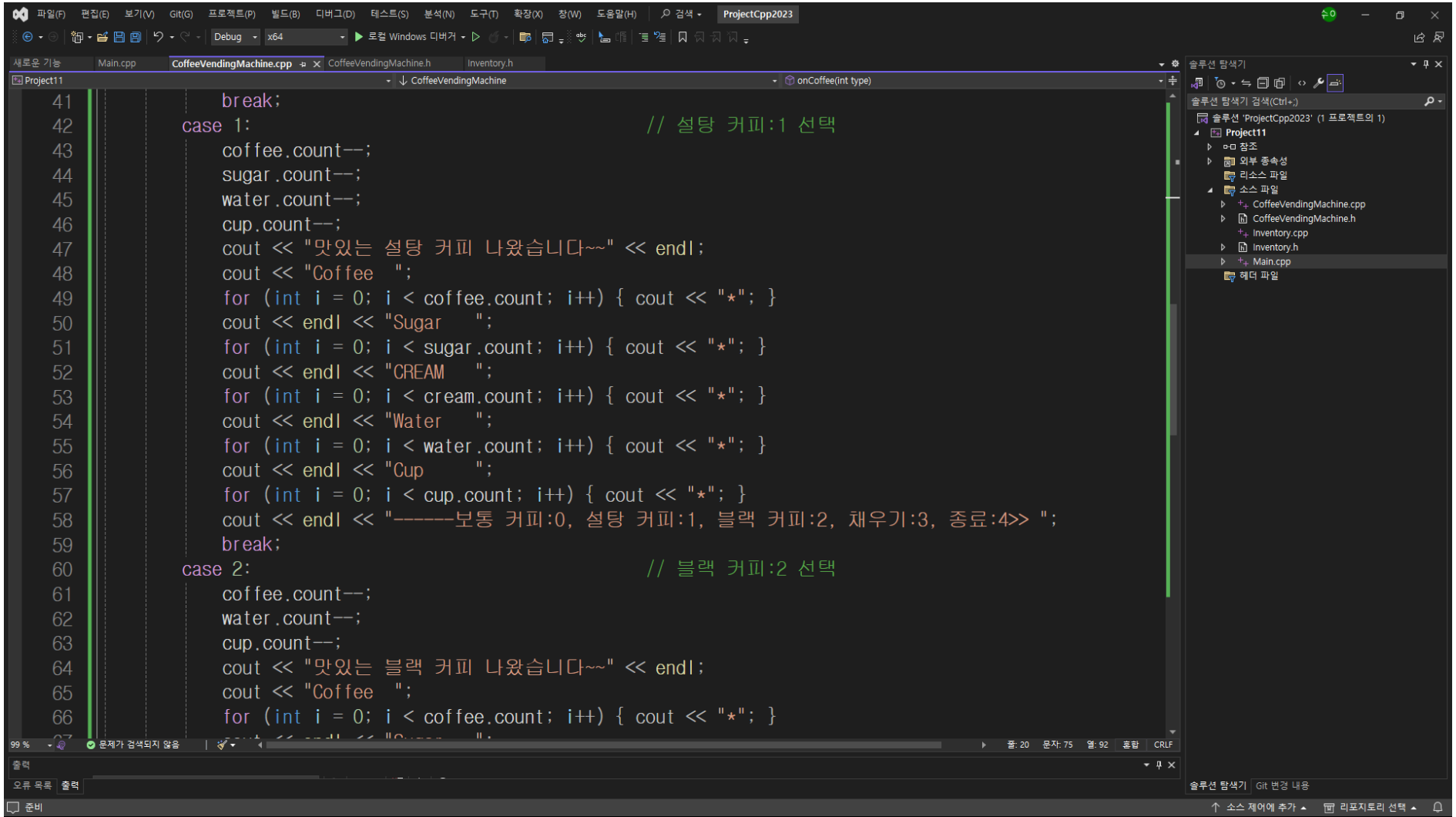
[01] CoffeeVendingMachine.cpp (1/5)



[01] CoffeeVendingMachine.cpp (2/5)

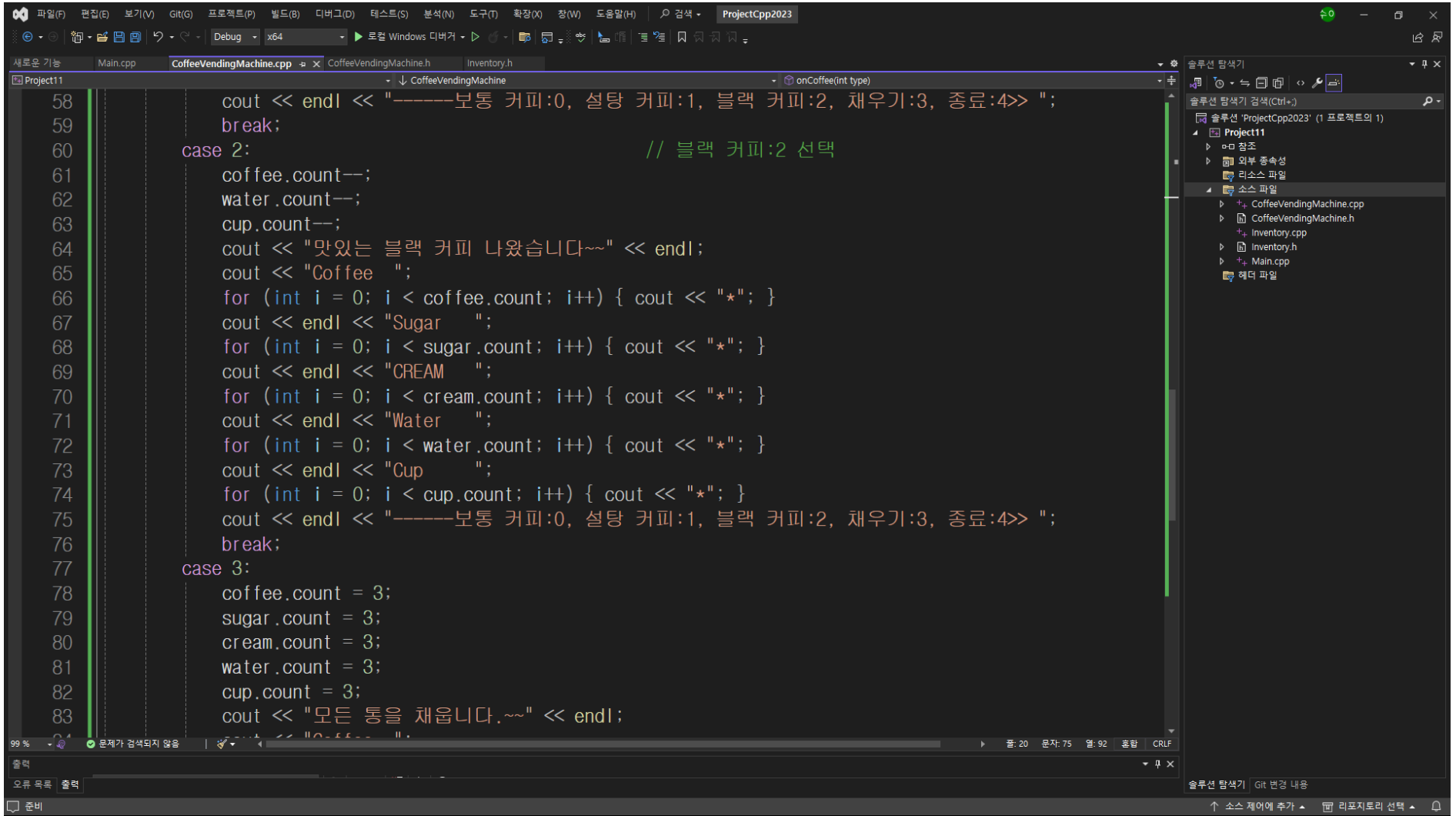


[01] CoffeeVendingMachine.cpp (3/5)



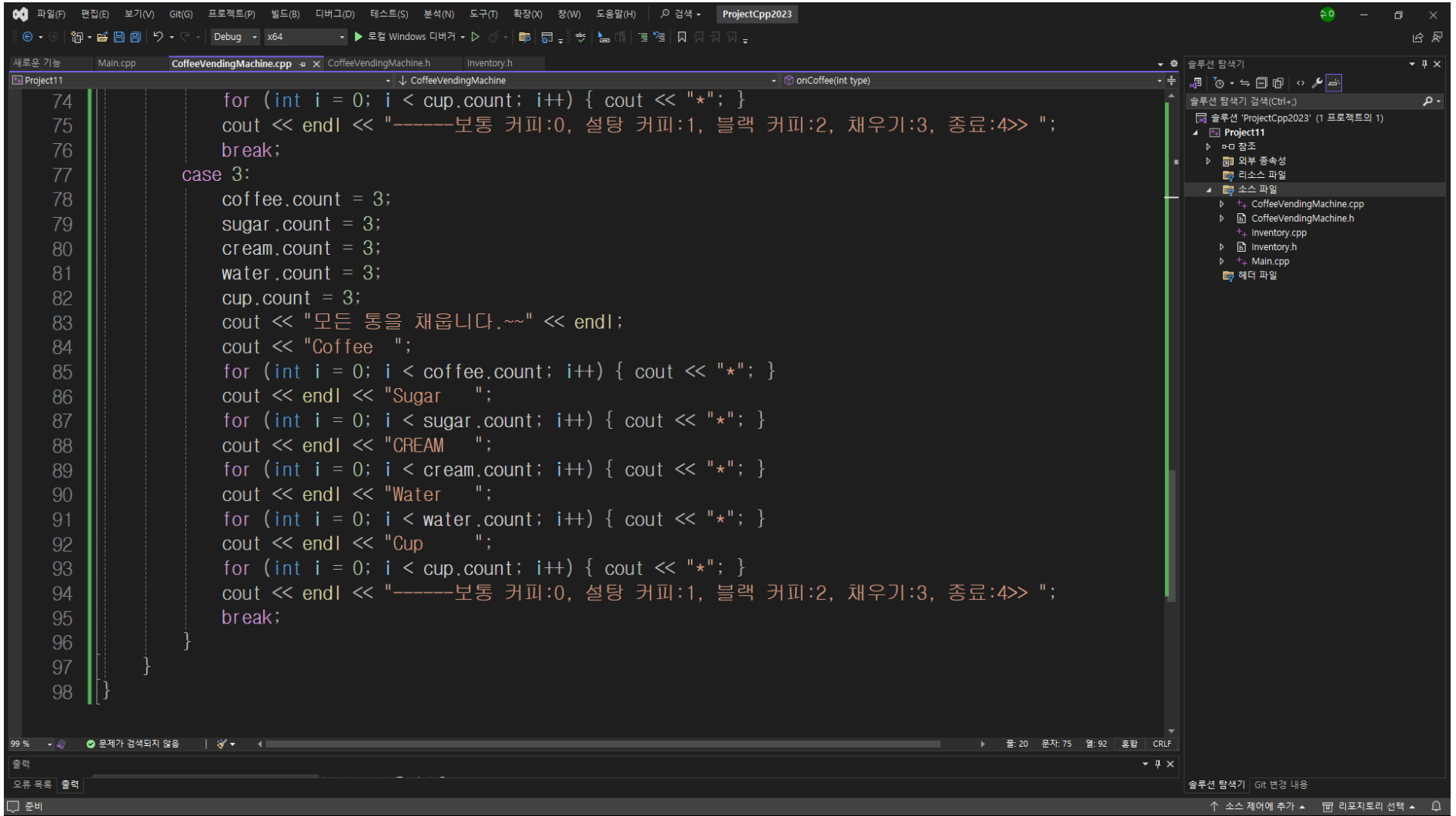
```
41              break;
42          case 1:                                     // 설탕 커피:1 선택
43              coffee.count--;
44              sugar.count--;
45              water.count--;
46              cup.count--;
47              cout << "맛있는 설탕 커피 나왔습니다~~" << endl;
48              cout << "Coffee  ";
49              for (int i = 0; i < coffee.count; i++) { cout << "*"; }
50              cout << endl << "Sugar   ";
51              for (int i = 0; i < sugar.count; i++) { cout << "*"; }
52              cout << endl << "CREAM   ";
53              for (int i = 0; i < cream.count; i++) { cout << "*"; }
54              cout << endl << "Water   ";
55              for (int i = 0; i < water.count; i++) { cout << "*"; }
56              cout << endl << "Cup     ";
57              for (int i = 0; i < cup.count; i++) { cout << "*"; }
58              cout << endl << "------보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4>> ";
59              break;
60          case 2:                                     // 블랙 커피:2 선택
61              coffee.count--;
62              water.count--;
63              cup.count--;
64              cout << "맛있는 블랙 커피 나왔습니다~~" << endl;
65              cout << "Coffee  ";
66              for (int i = 0; i < coffee.count; i++) { cout << "*"; }
```

[01] CoffeeVendingMachine.cpp (4/5)

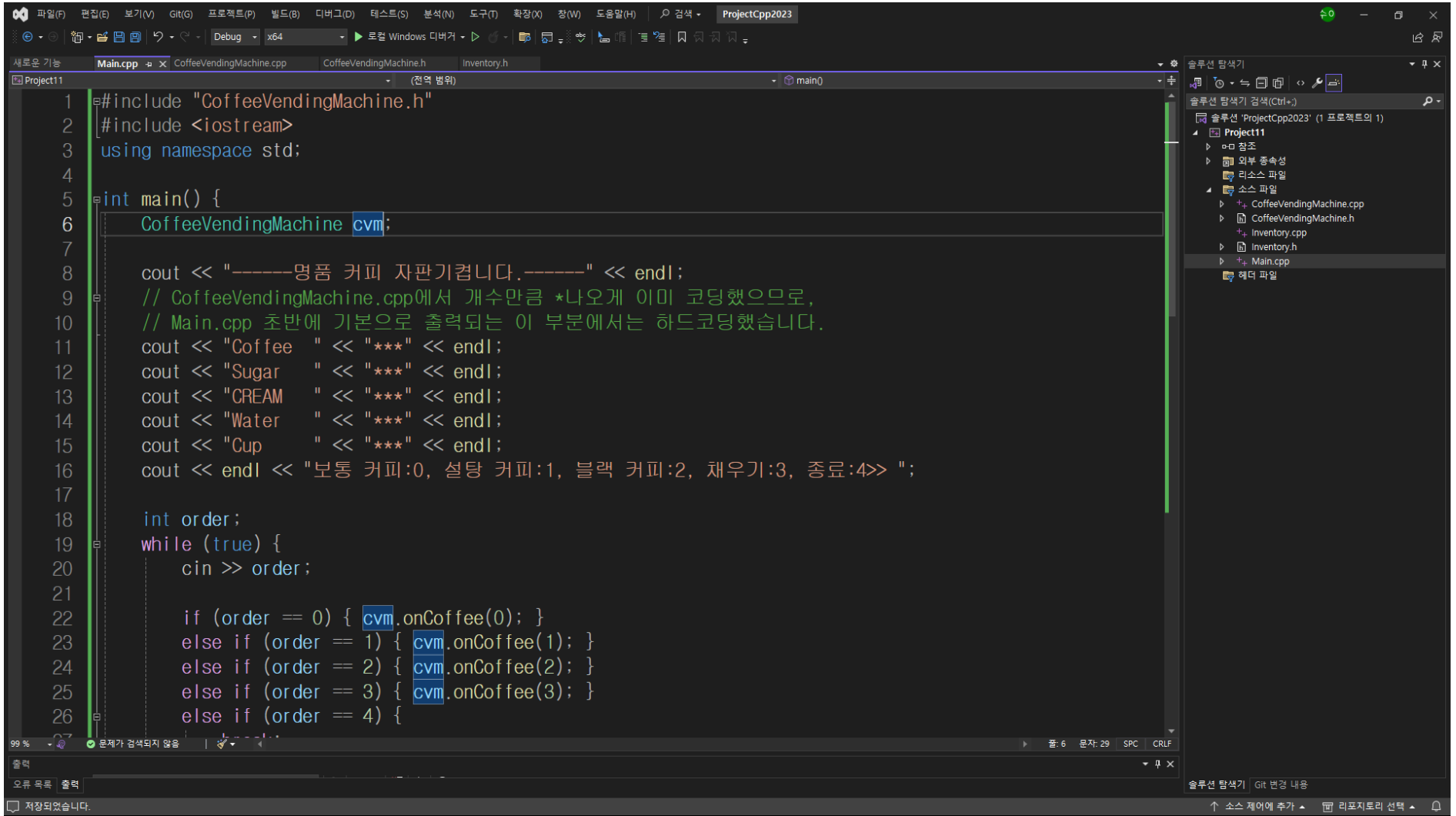


```
58              cout << endl << "------보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4>> ";
59              break;
60          case 2:                                     // 블랙 커피:2 선택
61              coffee.count--;
62              water.count--;
63              cup.count--;
64              cout << "맛있는 블랙 커피 나왔습니다~~" << endl;
65              cout << "Coffee  ";
66              for (int i = 0; i < coffee.count; i++) { cout << "*"; }
67              cout << endl << "Sugar   ";
68              for (int i = 0; i < sugar.count; i++) { cout << "*"; }
69              cout << endl << "CREAM   ";
70              for (int i = 0; i < cream.count; i++) { cout << "*"; }
71              cout << endl << "Water   ";
72              for (int i = 0; i < water.count; i++) { cout << "*"; }
73              cout << endl << "Cup     ";
74              for (int i = 0; i < cup.count; i++) { cout << "*"; }
75              cout << endl << "------보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4>> ";
76              break;
77          case 3:
78              coffee.count = 3;
79              sugar.count = 3;
80              cream.count = 3;
81              water.count = 3;
82              cup.count = 3;
83              cout << "모든 통을 채웁니다.~~" << endl;
```

[01] CoffeeVendingMachine.cpp (5/5)

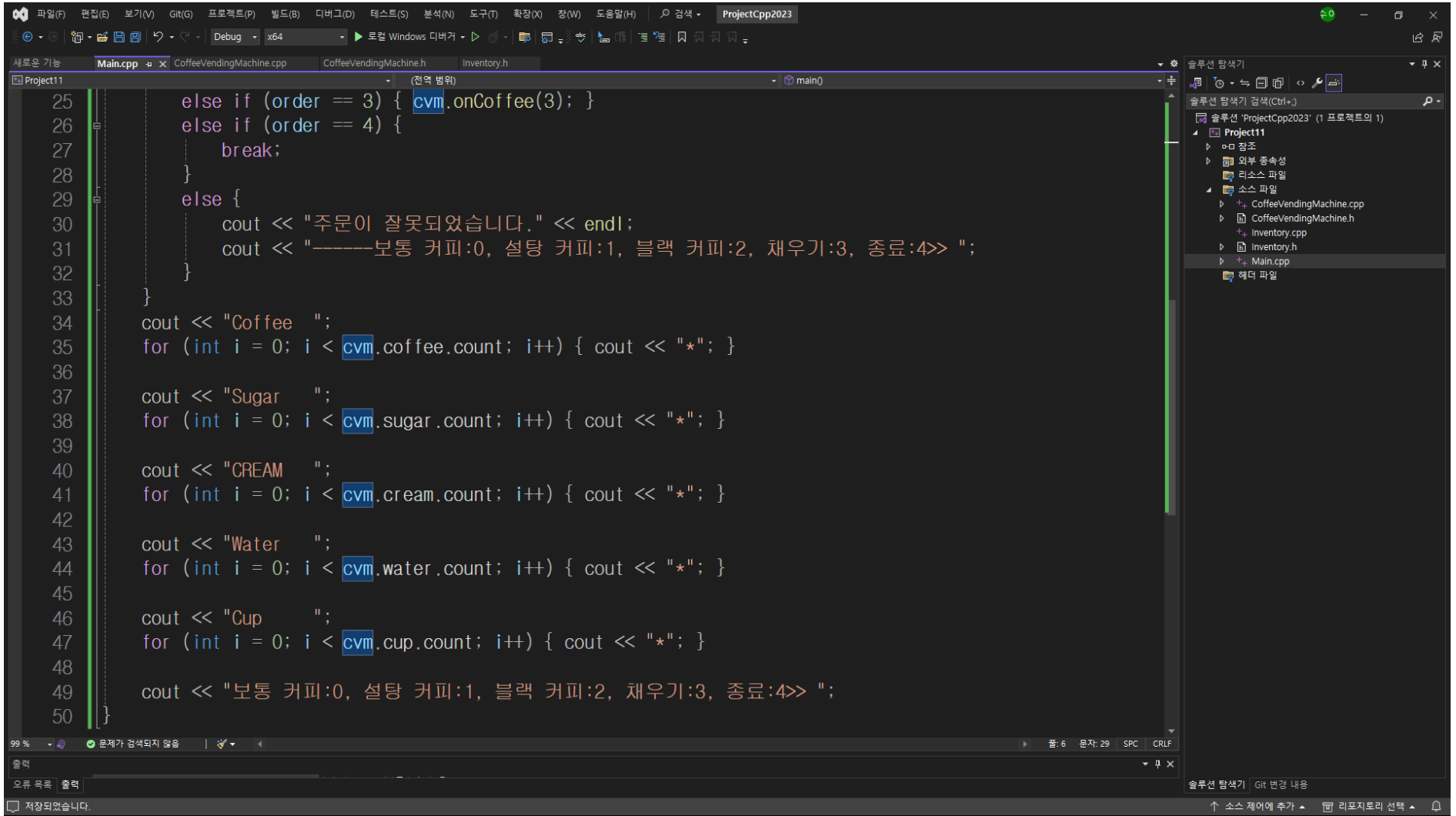


[01] Main.cpp (1/2)

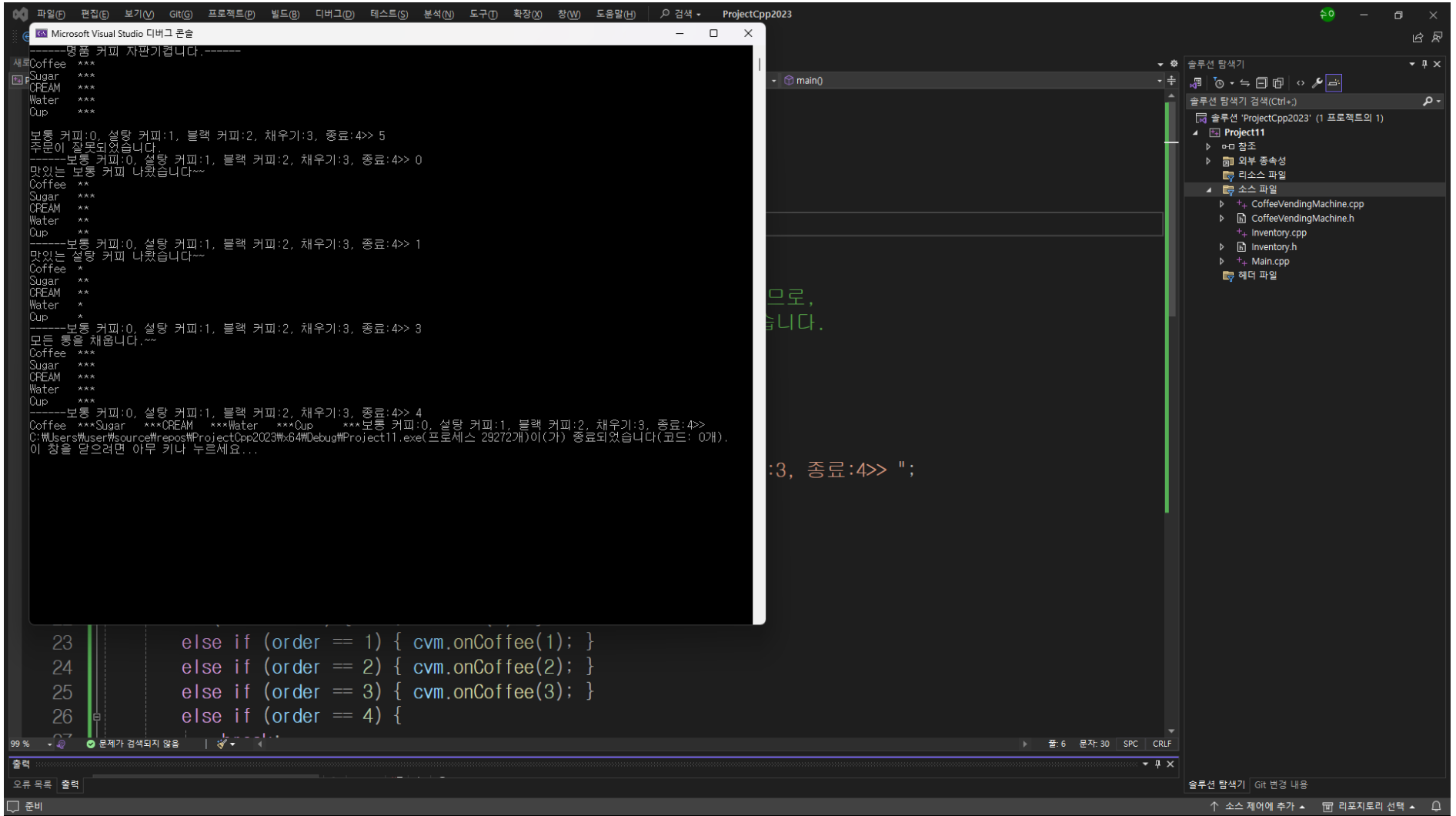


```cpp
#include "CoffeeVendingMachine.h"
#include <iostream>
using namespace std;

int main() {
    CoffeeVendingMachine cvm;

    cout << "------명품 커피 자판기켭니다.------" << endl;
    // CoffeeVendingMachine.cpp에서 개수만큼 *나오게 이미 코딩했으므로,
    // Main.cpp 초반에 기본으로 출력되는 이 부분에서는 하드코딩했습니다.
    cout << "Coffee  " << "***" << endl;
    cout << "Sugar   " << "***" << endl;
    cout << "CREAM   " << "***" << endl;
    cout << "Water   " << "***" << endl;
    cout << "Cup     " << "***" << endl;
    cout << endl << "보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4>> ";

    int order;
    while (true) {
        cin >> order;

        if (order == 0) { cvm.onCoffee(0); }
        else if (order == 1) { cvm.onCoffee(1); }
        else if (order == 2) { cvm.onCoffee(2); }
        else if (order == 3) { cvm.onCoffee(3); }
        else if (order == 4) {
```

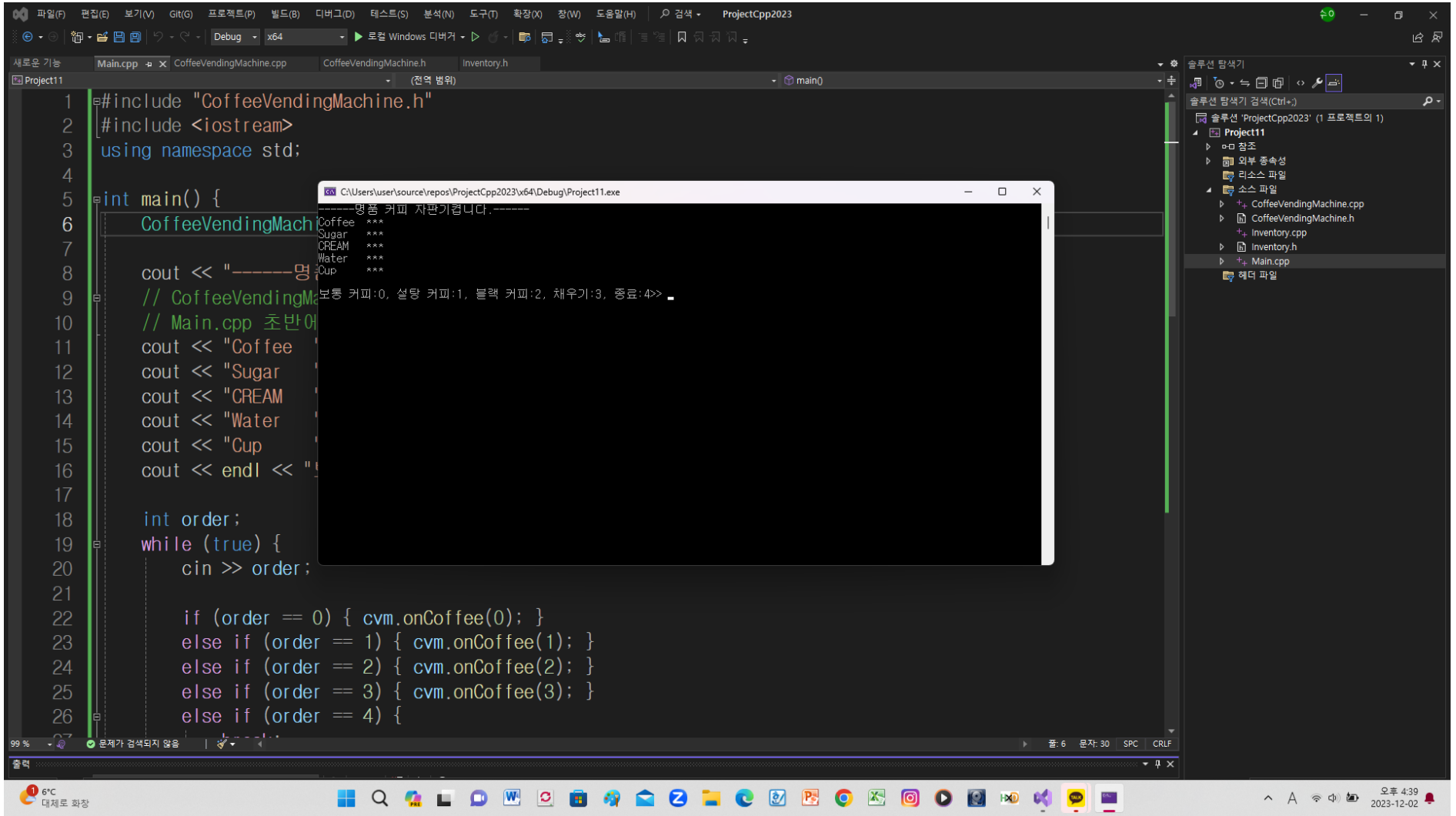
[01] Main.cpp (2/2)



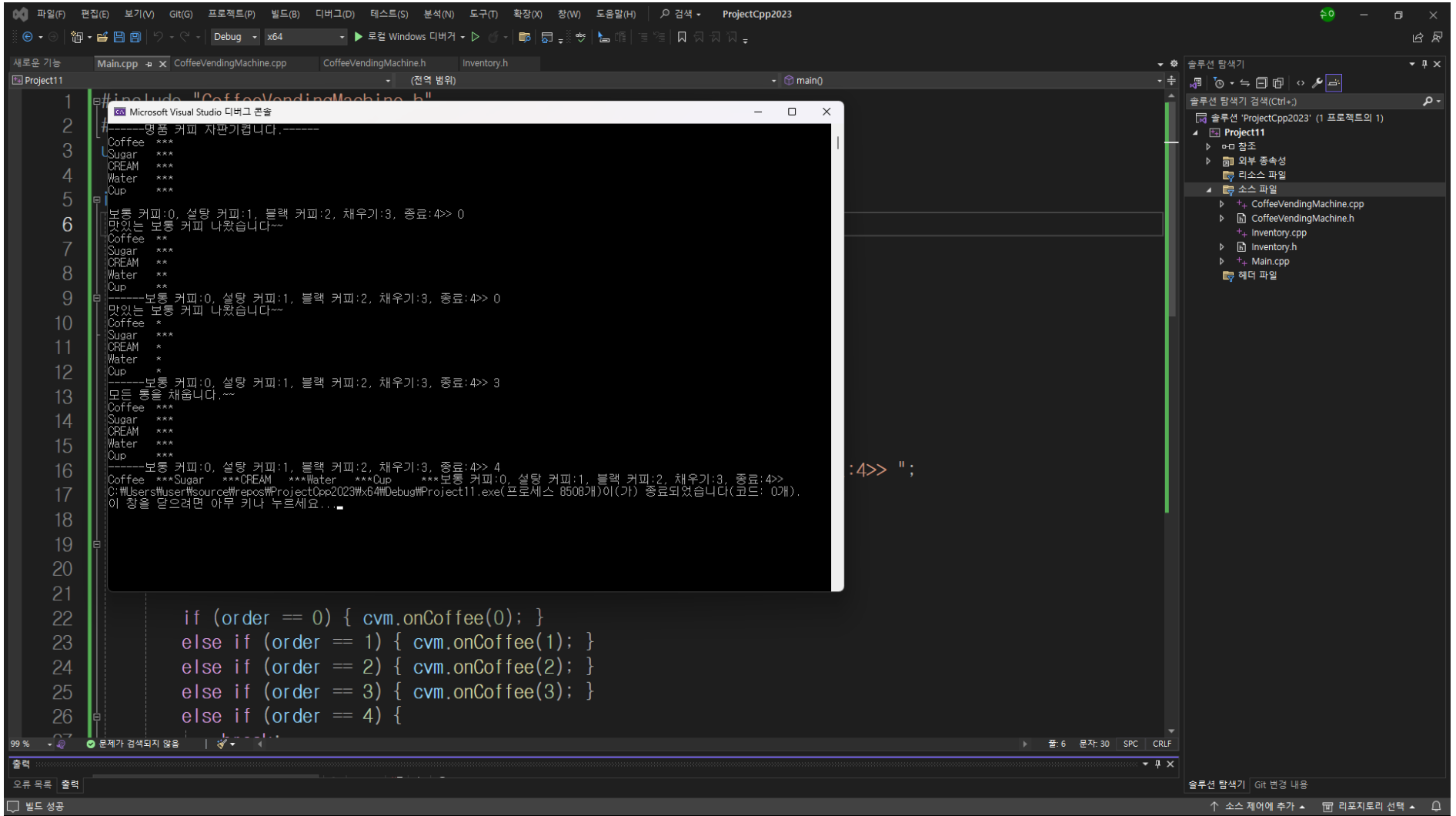
[이] 실행결과 (1) 교재와 동일한 결과



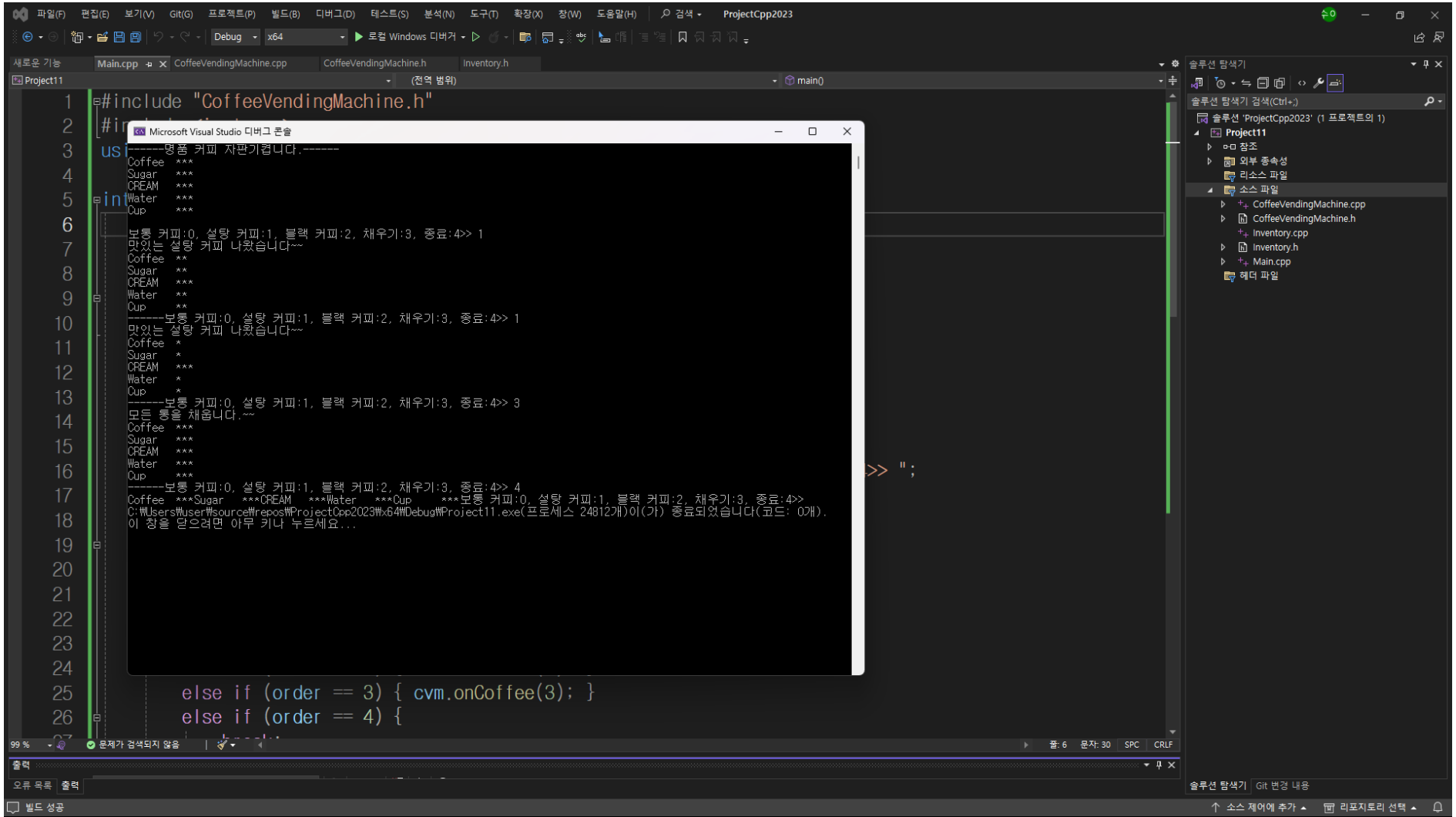
[이] 실행결과 (2) 실행 후 기본값



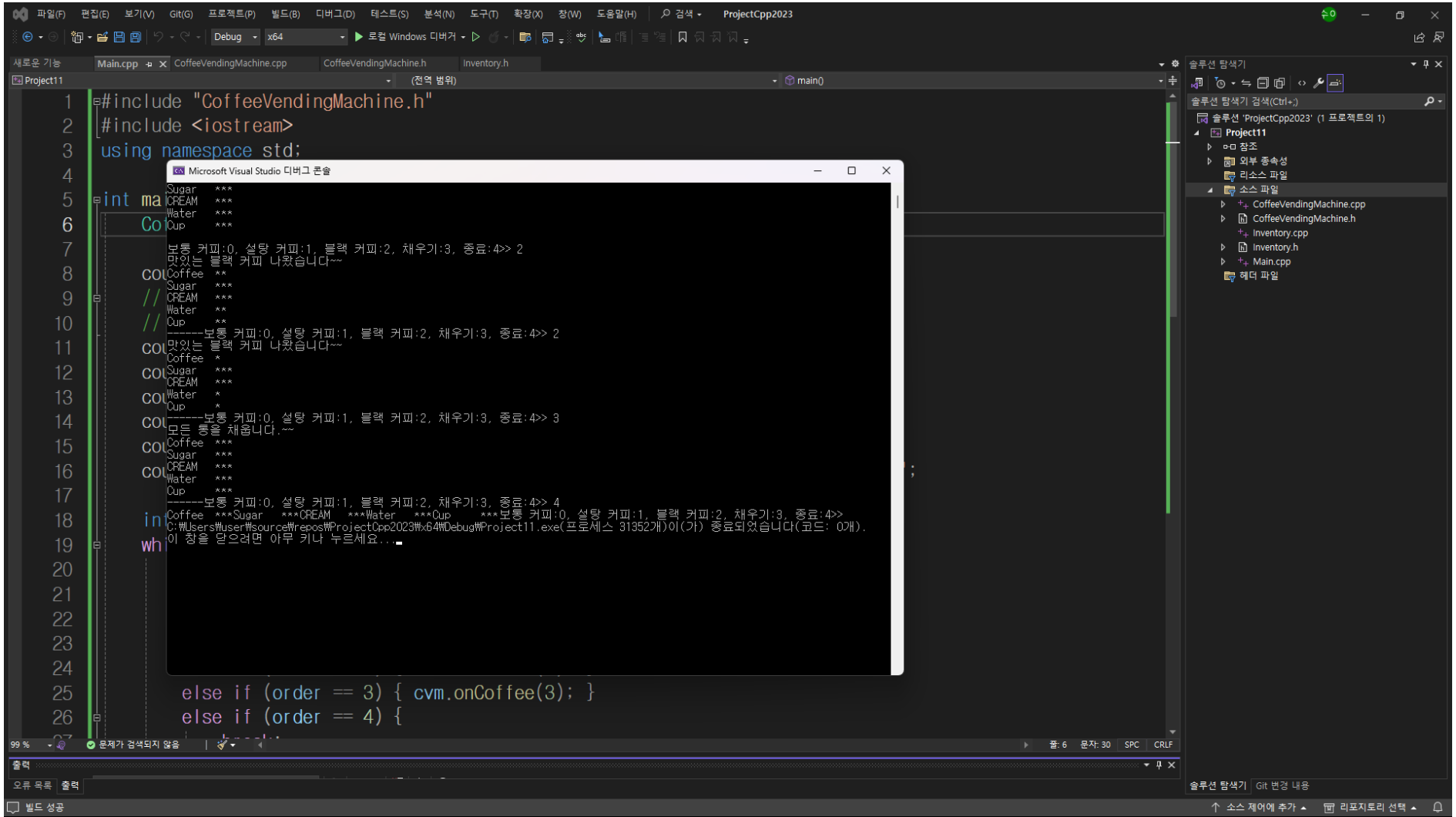
[이] 실행결과 (3) 0번(보통커피)+3번+4번



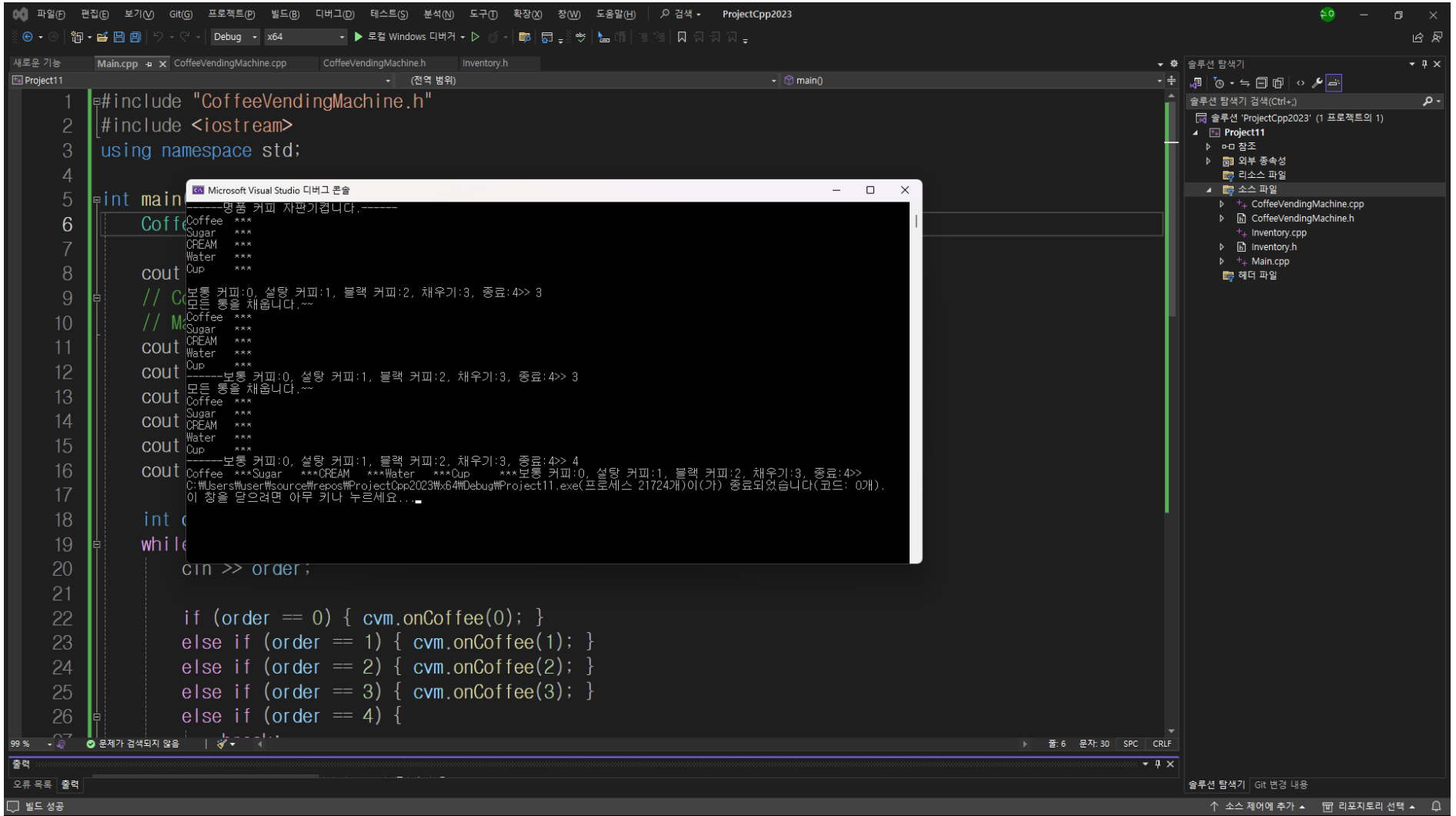
[이] 실행결과 (4) 1번(설탕커피)+3번+4번



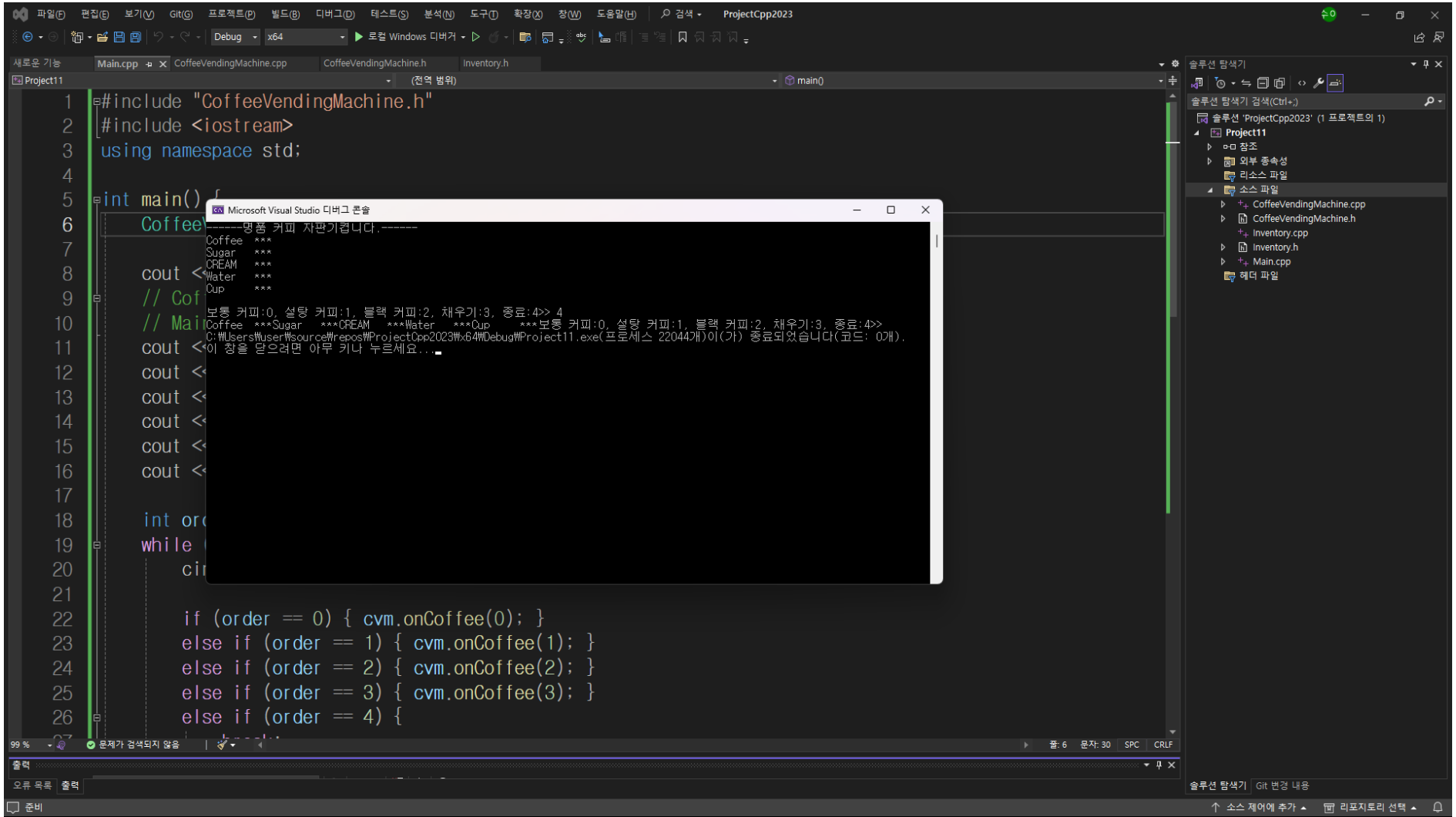
[이] 실행결과 (5) 2번(블랙커피)+3번+4번



[이] 실행결과 (6) 3번(채우기)+4번



[이] 실행결과 (7) 4번(종료)


Microsoft Visual Studio 디버그 콘솔
-----명품 커피 자판기입니다.-----
Coffee ***
Sugar ***
CREAM ***
Water ***
Cup ***
보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4>> 4
Coffee ***Sugar ***CREAM ***Water ***Cup ***보통 커피:0, 설탕 커피:1, 블랙 커피:2, 채우기:3, 종료:4>>
C:₩Users₩user₩source₩repos₩ProjectCpp2023₩x64₩Debug₩Project11.exe(프로세스 22044개)이(가) 종료되었습니다(코드: 0개).
이 창을 닫으려면 아무 키나 누르세요...
#include "CoffeeVendingMachine.h"
#include <iostream>
using namespace std;
int main()
if (order == 0) { cvm.onCoffee(0); }
else if (order == 1) { cvm.onCoffee(1); }
else if (order == 2) { cvm.onCoffee(2); }
else if (order == 3) { cvm.onCoffee(3); }
else if (order == 4) {