

MonsterWorldGame91.cpp

VariousMonsters91.h

MonsterWorld91.h

Matrix91.h

Monster91.h

Canvas91.h

Solution Explorer

Week9_Homework1 (Global Scope)

```
1 #include "MonsterWorld91.h"
2 #include "VariousMonsters91.h"
3 #include <time.h>
4
5 void main()
6 {
7     srand((unsigned int)time(NULL));
8     int w = 16, h = 8;
9     MonsterWorld game(w, h);
10
11     game.add(new Zombie("허점한좀비", "$", rand() % w, rand() % h));
12     game.add(new Vampire("뱀파이어짱", "*", rand() % w, rand() % h));
13     game.add(new KGhost("어쩌다귀신", "♥", rand() % w, rand() % h));
14     game.add(new Jiangshi("못먹어도고", "←", rand() % w, rand() % h, true));
15     game.add(new Jiangshi("못먹어도고", "↑", rand() % w, rand() % h, false));
16     game.play(500, 10);
17     printf("-----게임 종료-----\n");
18 }
```

C:\Users\User\source\repos\Week9_Homework1\Week9_Homework1.exe

Monster World (Dynamic World)

전체 이동 횟수 = 0
남은 아이템 수 = 128
허점한좀비 \$: 0
뱀파이어짱 ★ : 0
어쩌다귀신 ♥ : 0
못먹어도고 ← : 0
못먹어도고 ↑ : 0
엔터를 누르세요...

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Solution Explorer

Week9_Homework1

```
1 #pragma once
2 #include "Monster91.h"
3
4 class Zombie : public Monster {
5 public:
6     Zombie(string n = "허점한좀비", string i = "$", int x = 0, int y = 0)
7         : Monster(n, i, x, y) {}
8     ~Zombie() { cout << " Zombie"; }
9 };
10
11 class Vampire : public Monster {
12 public:
13     Vampire(string n = "뱀파이어", string i = "*", int x = 0, int y = 0)
14         : Monster(n, i, x, y) {}
15     ~Vampire() { cout << " Vampire"; }
16
17     void move(int** map, int maxx, int maxy) {
18         int dir = rand() % 4;
19         if (dir == 0) x--;
20         else if (dir == 1) x++;
21         else if (dir == 2) y--;
22         else y++;
23         clip(maxx, maxy);
24         eat(map);
25     }
26 };
27
28 class KGhost : public Monster {
29 public:
30     KGhost(string n = "저녁귀신", string i = "♥", int x = 0, int y = 0)
31         : Monster(n, i, x, y) {}
32     ~KGhost() { cout << " KGhost"; }
33
34     void move(int** map, int maxx, int maxy) {
35         x = rand() % maxx;
36         y = rand() % maxy;
37     }
38 };
39
40 class Jiangshi : public Monster {
41 public:
42     Jiangshi(string n = "데육강시", string i = "←", int x = 0, int y = 0, bool bHori)
43         : Monster(n, i, x, y), bHori(bHori) {}
44     ~Jiangshi() { cout << " Jiangshi"; }
45
46     void move(int** map, int maxx, int maxy) {
47         int dir = rand() % 2;
48         int jump = rand() % 2 + 1;
49         if (bHori) x += ((dir == 0) ? -jump : jump);
50         else y += ((dir == 0) ? -jump : jump);
51         clip(maxx, maxy);
52         eat(map);
53     }
54 };
55
56
57
```

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Monster World (Dynamic World)

전체 이동 횟수 = 18
남은 아이템 수 = 77
허점한좀비 \$: 9
뱀파이어짱 ★ : 12
어쩌다귀신 ♥ : 8
못먹어도고 ← : 13
못먹어도고 ↑ : 9

MonsterWorldGame91.cpp

VariousMonsters91.h

MonsterWorld91.h

Matrix91.h

Monster91.h

Canvas91.h

Solution Explorer

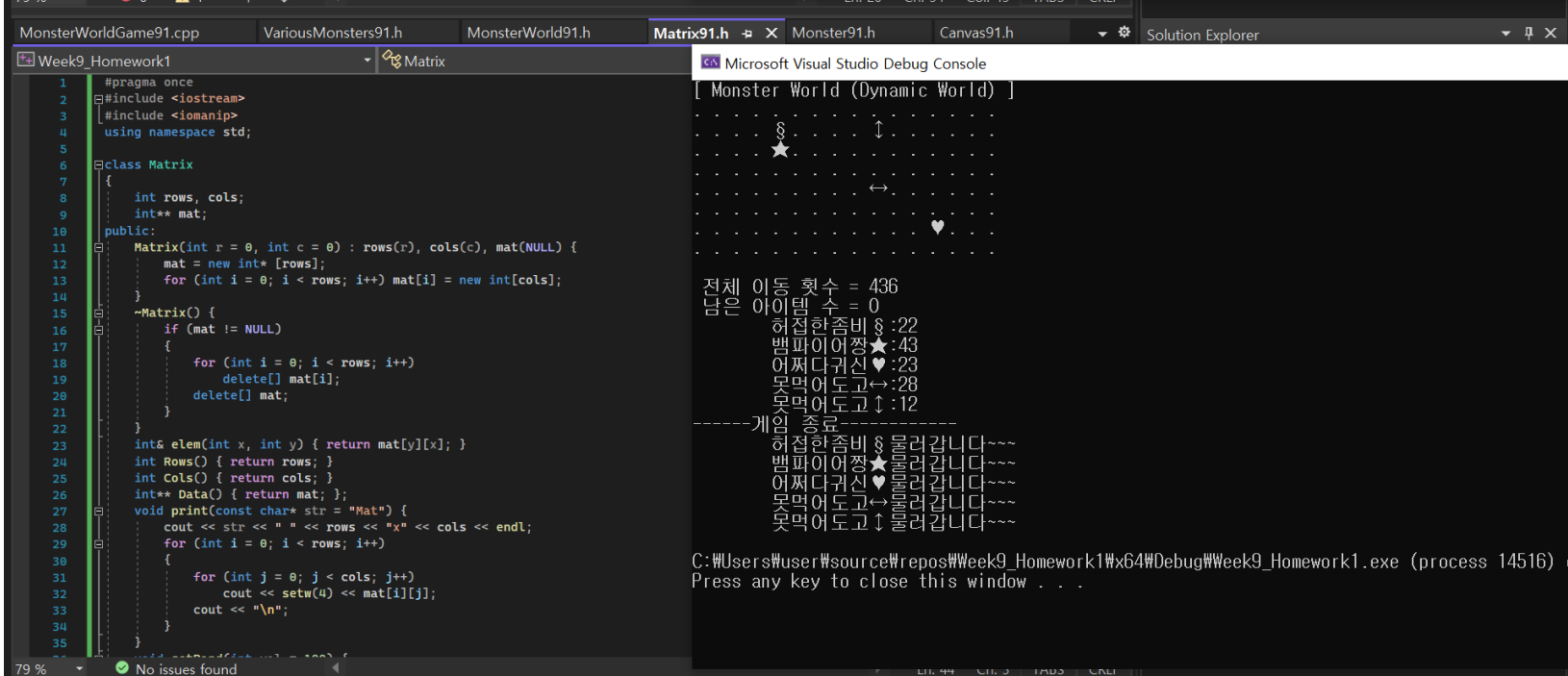
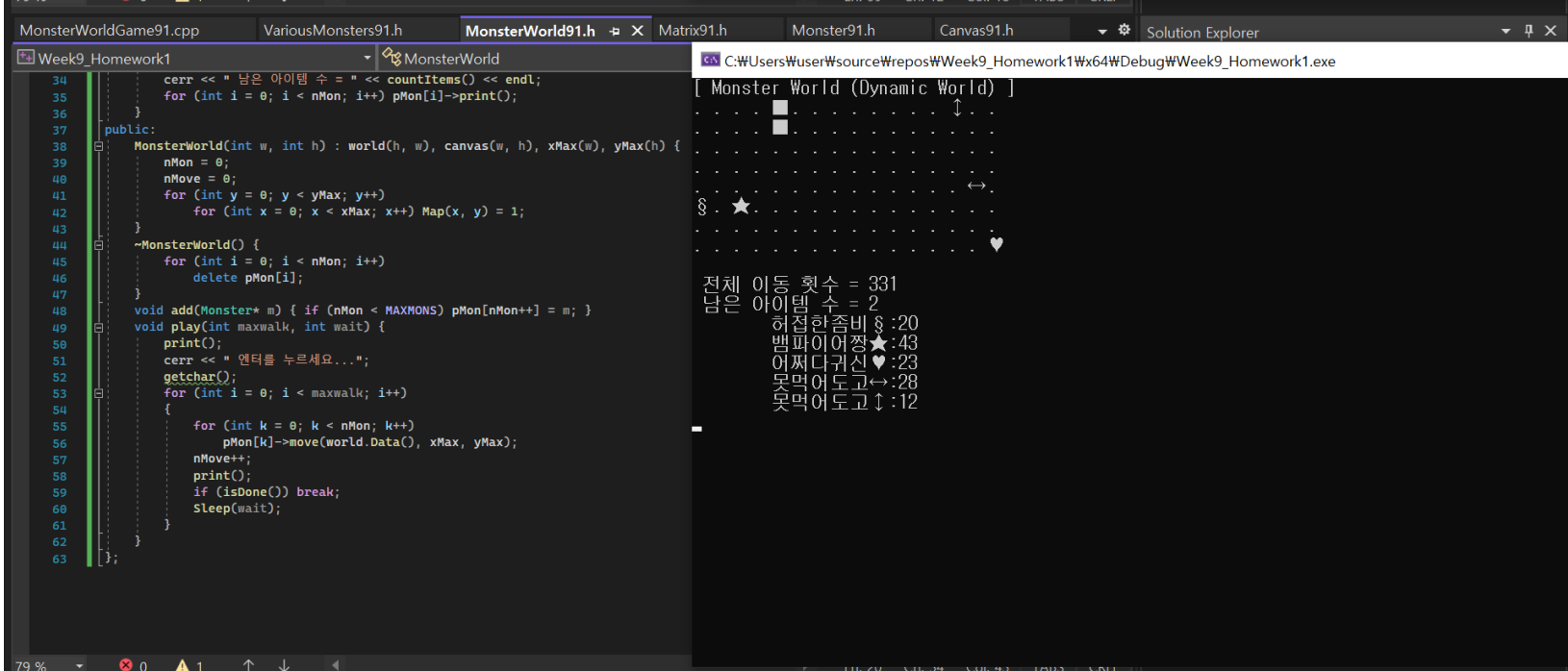
Week9_Homework1

```
34 void move(int** map, int maxx, int maxy) {
35     x = rand() % maxx;
36     y = rand() % maxy;
37     clip(maxx, maxy);
38     eat(map);
39 }
40
41
42 class Jiangshi : public Monster {
43 public:
44     Jiangshi(string n = "데육강시", string i = "←", int x = 0, int y = 0, bool bHori)
45         : Monster(n, i, x, y), bHori(bHori) {}
46     ~Jiangshi() { cout << " Jiangshi"; }
47
48     void move(int** map, int maxx, int maxy) {
49         int dir = rand() % 2;
50         int jump = rand() % 2 + 1;
51         if (bHori) x += ((dir == 0) ? -jump : jump);
52         else y += ((dir == 0) ? -jump : jump);
53         clip(maxx, maxy);
54         eat(map);
55     }
56 }
57
```

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Monster World (Dynamic World)

전체 이동 횟수 = 107
남은 아이템 수 = 16
허점한좀비 \$: 18
뱀파이어짱 ★ : 33
어쩌다귀신 ♥ : 22
못먹어도고 ← : 28
못먹어도고 ↑ : 11



MonsterWorldGame91.cppVariousMonsters91.hMonsterWorld91.hMatrix91.hXMonster91.hCanvas91.h

Week9_Homework1Matrix

```
34 }
35 }
36 void setRand(int val = 100) {
37     if (mat != NULL)
38     {
39         for (int i = 0; i < rows; i++)
40             for (int j = 0; j < cols; j++)
41                 mat[i][j] = (rand() % val);
42     }
43 }
44 };
```

79 % No issues found Ln: 44 Ch: 3 TABS CRLF

Solution Explorer

Search Solution Explorer (Ctrl+)

Solution 'Week9_Homework1' (1 of 1 project)

Week9_Homework1

References

External Dependencies

Header Files

Canvas91.h

Matrix91.h

Monster91.h

MonsterWorld91.h

VariousMonsters91.h

Resource Files

Source Files

MonsterWorldGame91.cpp

MonsterWorldGame91.cppVariousMonsters91.hMonsterWorld91.hMatrix91.hXMonster91.hCanvas91.h

Week9_Homework1Monster

```
1 #pragma once
2 #include "Canvas91.h"
3 #define DIM 40
4
5 class Monster
6 {
7 public:
8     string name, icon;
9     int x, y, nItem;
10
11     void clip(int maxx, int maxy) {
12         if (x < 0) x = 0;
13         if (x >= maxx) x = maxx - 1;
14         if (y < 0) y = 0;
15         if (y >= maxy) y = maxy - 1;
16     }
17     void eat(int** map) {
18         if (map[y][x] == 1)
19         {
20             map[y][x] = 0;
21             nItem++;
22         }
23     }
24 public:
25     Monster(string n = "나괴물", string i = "※", int px = 0, int py = 0)
26         : name(n), icon(i), x(px), y(py), nItem(0) { }
27     ~Monster() { cout << "\t" << name << icon << "몰라잡니다~~~\n"; }
28
29     void draw(Canvas& canvas) { canvas.draw(x, y, icon); }
30     void move(int** map, int maxx, int maxy) {
31         switch (rand() % 8)
32         {
33             case 0: y--; break;
34             case 1: x++; y--; break;
35             case 2: x++; break;
36             case 3: x++; y++; break;
37             case 4: y++; break;
38             case 5: x--; y++; break;
39             case 6: x--; break;
40             case 7: x--; y--; break;
41         }
42         clip(maxx, maxy);
43         eat(map);
44     }
45     void print() { cout << "\t" << name << icon << ":" << nItem << endl; }
46 };
```

79 % No issues found Ln: 46 Ch: 3 TABS CRLF

Solution Explorer

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Solution 'Week9_Homework1' (1 of 1 project)

Week9_Homework1

References

External Dependencies

Header Files

Canvas91.h

Matrix91.h

Monster91.h

MonsterWorld91.h

VariousMonsters91.h

Resource Files

Source Files

MonsterWorldGame91.cpp

MonsterWorldGame91.cppVariousMonsters91.hMonsterWorld91.hMatrix91.hXMonster91.hCanvas91.h

Week9_Homework1Monsterclip(int maxx, int maxy)

```
34 case 1: x++; y--; break;
35 case 2: x++; break;
36 case 3: x++; y++; break;
37 case 4: y++; break;
38 case 5: x--; y++; break;
39 case 6: x--; break;
40 case 7: x--; y--; break;
41 }
42 clip(maxx, maxy);
43 eat(map);
44 }
45 void print() { cout << "\t" << name << icon << ":" << nItem << endl; }
46 };
```

79 % No issues found Ln: 12 Ch: 20 Col: 26 TABS CRLF

Solution Explorer

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Solution 'Week9_Homework1' (1 of 1 project)

Week9_Homework1

References

External Dependencies

Header Files

Canvas91.h

Matrix91.h

Monster91.h

MonsterWorld91.h

VariousMonsters91.h

Resource Files

Source Files

MonsterWorldGame91.cpp

MonsterWorldGame91.cppVariousMonsters91.hMonsterWorld91.hMatrix91.hMonster91.hCanvas91.hX

Week9_Homework1Canvas

```
1  #pragma once
2  #include <iostream>
3  #include <string>
4  #define MAXLINES 100
5  using namespace std;
6
7  class Canvas
8  {
9      string line[MAXLINES];
10     int xMax, yMax;
11 public:
12     Canvas(int nx = 10, int ny = 10) : xMax(nx), yMax(ny) {
13         for (int y = 0; y < yMax; y++)
14             line[y] = string(xMax * 2, ' ');
15     }
16     void draw(int x, int y, string val) {
17         if (x >= 0 && y >= 0 && x < xMax && y < yMax)
18             line[y].replace(x * 2, 2, val);
19     }
20     void clear(string val = " ") {
21         for (int y = 0; y < yMax; y++)
22             for (int x = 0; x < xMax; x++)
23                 draw(x, y, val);
24     }
25     void print(const char* title = "<My Canvas>") {
26         system("cls");
27         cout << title << endl;
28         for (int y = 0; y < yMax; y++)
29             cout << line[y] << endl;
30         cout << endl;
31     }
32 }
```

79 %No issues foundLn: 32Ch: 3TABSCRLF

Solution Explorer

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Solution 'Week9_Homework1' (1 of 1 project)

Week9_Homework1

References

External Dependencies

Header Files

Canvas91.h

Matrix91.h

Monster91.h

MonsterWorld91.h

VariousMonsters91.h

Resource Files

Source Files

MonsterWorldGame91.cpp