```cpp
#include "ParkingTower.h"
#include <iostream>
#include <conio.h>
#include <cstring>
using namespace std;

void ParkingTower::DisplayMenu()
{
    PrintOpenMessage();
    cout << "=====================================================₩n";
    cout << endl;
    cout << "     [1] 입고       [2] 출고       [3] 주차현황" << endl;
    cout << endl;
    cout << "=====================================================₩n";

}

void ParkingTower::PrintSuccessMessage() {
    cout << " Succed Parking" << endl;
}
void ParkingTower::PrintOpenMessage()
{
    cout << " 문이 열립니다." << endl;
}
void ParkingTower::PrintClosedMessage()
{
    cout << " 문이 닫힙니다." << endl;
}
void ParkingTower::PrintNiceDay()
{
    cout << " Have a nice day" << endl;
}


void ParkingTower::Checkin()
{
    int flag = 0;
    int i, myCarNum;
    char myCarType;

    for (i = 0; i < 8; i++)
    {
        if (parkingSpace[i]->GetCarNumber() == 0)
            break;
        else if (i == 7) {
            flag++;
            cout << "주차 공간이 없습니다." << endl;
        }
    }

    if (flag == 0) {
        cout << " 차량 번호를 입력해주세요 : ";
        cin >> myCarNum;

        while (true) {
            cout << " 차량 종류를 입력해주세요 : [1] SUV    [2] Sedan" <<
```

```
                endl;
57              myCarType = _getch();
58
59              if (myCarType == '1') {
60                  parkingSpace[i] = new Suv(myCarNum);
61                  PrintClosedMessage();
62                  PrintSuccessMessage();
63                  break;
64              }
65              else if (myCarType == '2') {
66                  parkingSpace[i] = new Sedan(myCarNum);
67                  PrintClosedMessage();
68                  PrintSuccessMessage();
69                  break;
70              }
71              else {
72                  cout << " 1 또는 2를 입력해주세요" << endl;
73                  continue;
74              }
75          }
76      }
77  }
78
79
80
81  void ParkingTower::ParkingCheck()
82  {
83      int i;
84      char* p1, * p2;
85      int countCar = 0;
86      int countSuv = 0;
87      int countSaloon = 0;
88
89      for (i = 0; i < 8; i++)
90      {
91          p1 = strstr(parkingSpace[i]->GetType(), (char*)"SUV");
92          p2 = strstr(parkingSpace[i]->GetType(), (char*)"Sedan");
93
94          if (p1 != 0) {
95              countCar++;
96              countSaloon++;
97          }
98          if (p2 != 0) {
99              countSaloon++;
100             countCar++;
101         }
102     }
103
104     cout << "[주차된 자동차 수] : (" << countCar << "/8)" << "   ₩n[SUV] : "
        << countSuv << "대";
105     cout << "               [Sedan] : " << countSaloon << "대" << endl;
106 }
107
108
109 void ParkingTower::DisplsyParkingSpace()
110 {
```

```
111     char esc;
112
113     ParkingCheck();
114     cout << "================== [ 4 floor ] ==================₩n₩n";
115     cout << "               " << parkingSpace[7]->GetType() << "(" <<
          parkingSpace[7]->GetCarNumber();
116     cout << ")              " << parkingSpace[6]->GetType() << "(" <<
          parkingSpace[7]->GetCarNumber() << ")" << endl;
117     cout << "₩n================== [ 3 floor ] ==================₩n₩n";
118     cout << "               " << parkingSpace[5]->GetType() << "(" <<
          parkingSpace[5]->GetCarNumber();
119     cout << ")              " << parkingSpace[4]->GetType() << "(" <<
          parkingSpace[4]->GetCarNumber() << ")" << endl;
120     cout << "₩n================== [ 2 floor ] ==================₩n₩n";
121     cout << "               " << parkingSpace[3]->GetType() << "(" <<
          parkingSpace[3]->GetCarNumber();
122     cout << ")              " << parkingSpace[2]->GetType() << "(" <<
          parkingSpace[2]->GetCarNumber() << ")" << endl;
123     cout << "₩n================== [ 1 floor ] ==================₩n₩n";
124     cout << "               " << parkingSpace[1]->GetType() << "(" <<
          parkingSpace[1]->GetCarNumber();
125     cout << ")              " << parkingSpace[0]->GetType() << "(" <<
          parkingSpace[0]->GetCarNumber() << ")" << endl;
126     cout << "₩n================================================₩n";
127     cout << "₩n                                          [ESC]₩n";
128
129     while (true) {
130         esc = _getch();
131         if (esc == 27)
132             break;
133     }
134 }
135
136 void ParkingTower::CheckOut()
137 {
138     int i, myCarNumber;
139     int flag = 0;
140
141
142     PrintClosedMessage();
143     cout << " 차 번호를 입력해주세요 : ";
144     cin >> myCarNumber;
145
146     for (i = 0; i < 8; i++)
147     {
148
149         if (parkingSpace[i]->GetCarNumber() == myCarNumber && myCarNumber !=
            0) {
150             break;
151         }
152         else if (i == 7)
153             flag = 1;
154     }
155     if (flag == 0) {
156         cout << " 출고 : " << parkingSpace[i]->GetCarNumber() << "(" <<
            parkingSpace[i]->GetType() << ")₩n";
```

```
157             parkingSpace[i]->SetCarNumber((int)0);
158             parkingSpace[i]->SetType((const char*)"NULL");
159             PrintOpenMessage();
160             PrintNiceDay();
161         }
162         if (flag == 1) {
163             cout << " 해당 차량이 없습니다." << endl;
164         }
165     }
166
167
```