

```
1 // Observer.h
2
3 #ifndef OBSERVER_H
4 #define OBSERVER_H
5
6 class Subject;
7
8 class Observer {
9 protected:
10     Subject* subject_ = nullptr;
11 public:
12     virtual ~Observer() = default;
13     virtual void update() = 0;
14     void attachToSubject(Subject* subject);
15     void detachFromSubject();
16 };
17
18 #endif // OBSERVER_H
19
```