

Week 4 Lab Questions:

1. How does the Observer pattern improve decoupling in the Café POS system?

The Observer pattern improves decoupling by letting the Order class only notify OrderObserver, not the actual classes like KitchenDisplay or CustomerNotifier when an event takes place.

2. Why is it beneficial that new observers can be added without modifying the Order class?

It makes the system more flexible, easier to extend, and simpler to maintain. It also encourages reuse of the same Order class, as it can work with any observer that implements OrderObserver, in any system.

3. Can you think of a real-world system (outside cafés) where Observer is used (e.g., push notifications, GUIs)?

In a GUI, the Observer pattern is used so that when a user clicks a button, the button (the subject) notifies all its observers. Each observer can then respond in its own way. The button doesn't need to know what each observer does, which keeps the interface flexible and decoupled.