

The Observer Pattern

Overview

After doing a Research and Investigate about all videos and tutorials related to Observer Pattern in Unity. I created this straightforward guide to teach myself how to implement this Programming Design Pattern.

BENEFITS

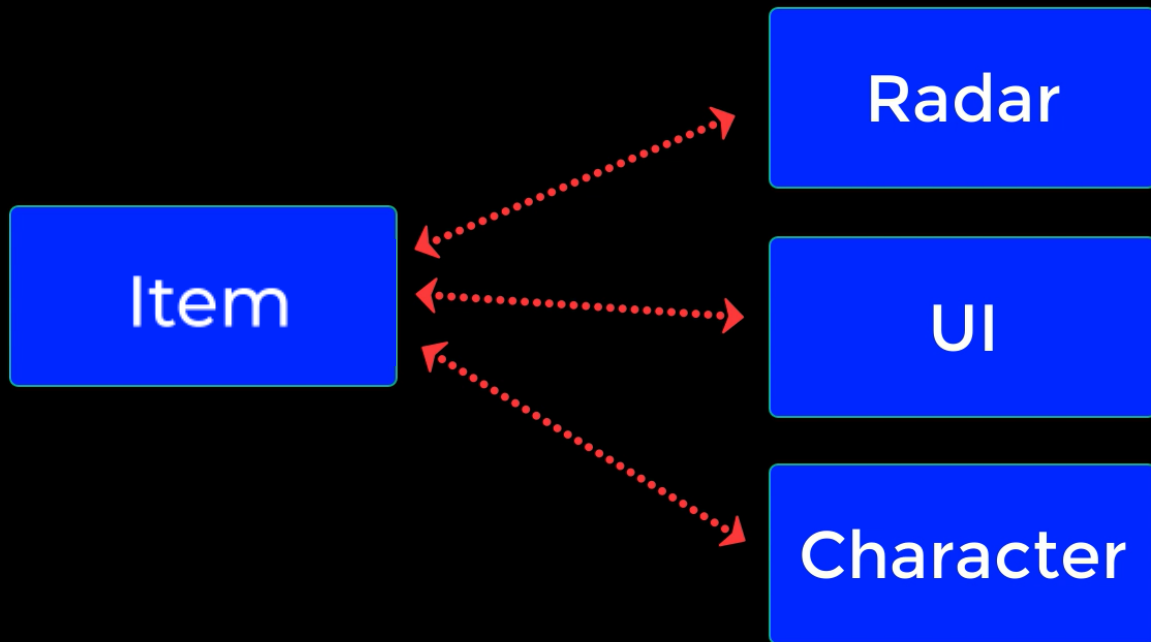
OBSERVER PATTERN

- 1 DECREASED DEPENDANCY**
SUPPORTS THE PRINCIPLE OF LOOSE COUPLING BETWEEN OBJECTS THAT INTERACT WITH EACH OTHER
- 2 ACCESIBILITY**
YOU CAN SEND DATA BETWEEN OBJECTS WITHOUT MAKING A CHANGE TO EITHER THE SUBJECT OR OBSERVERS
- 3 FLEXIBILITY**
CAN ADD OR REMOVE OBSERVERS WITHOUT RESCTRITION, AND AT ANY POINT IN TIME.
- 4 CLEANER CODE**
EASIER TO READ CODE AND IS MORE EFFECIENT IN MOST CASES COMPARED TO ALTERNATIVES.

Using what we learn from the previous chapter using Scriptable Objects. In this example we will notify 3 objects about different events:

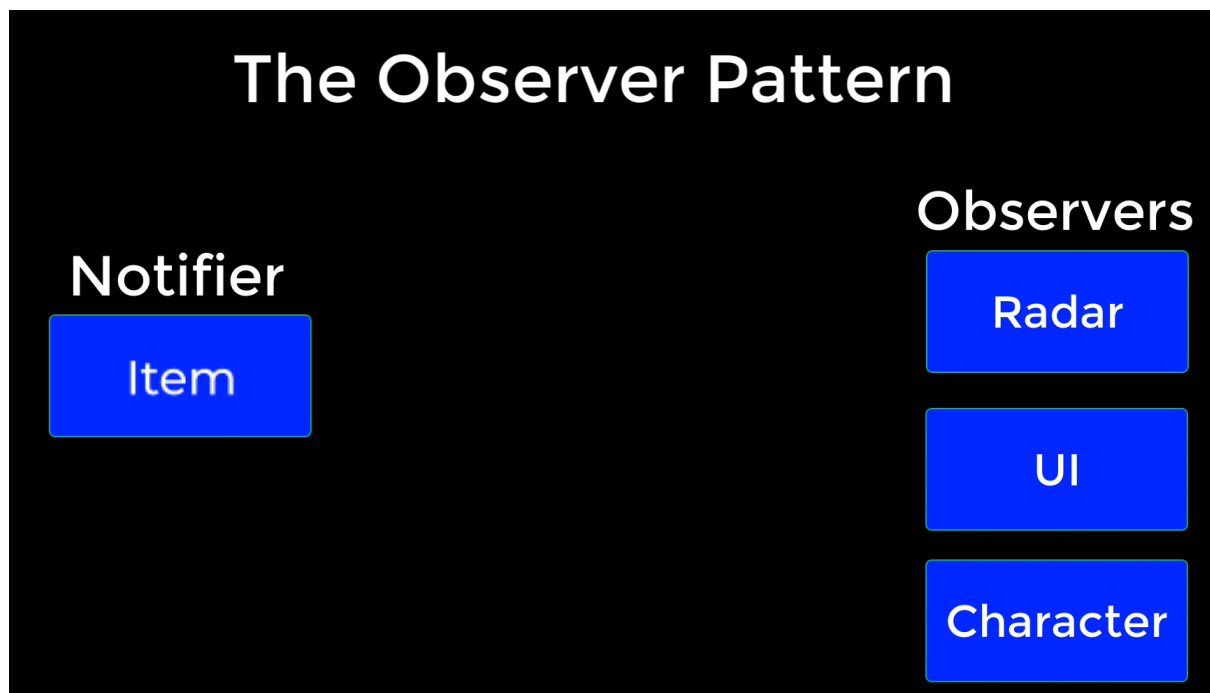
Sample 1

The Observer Pattern

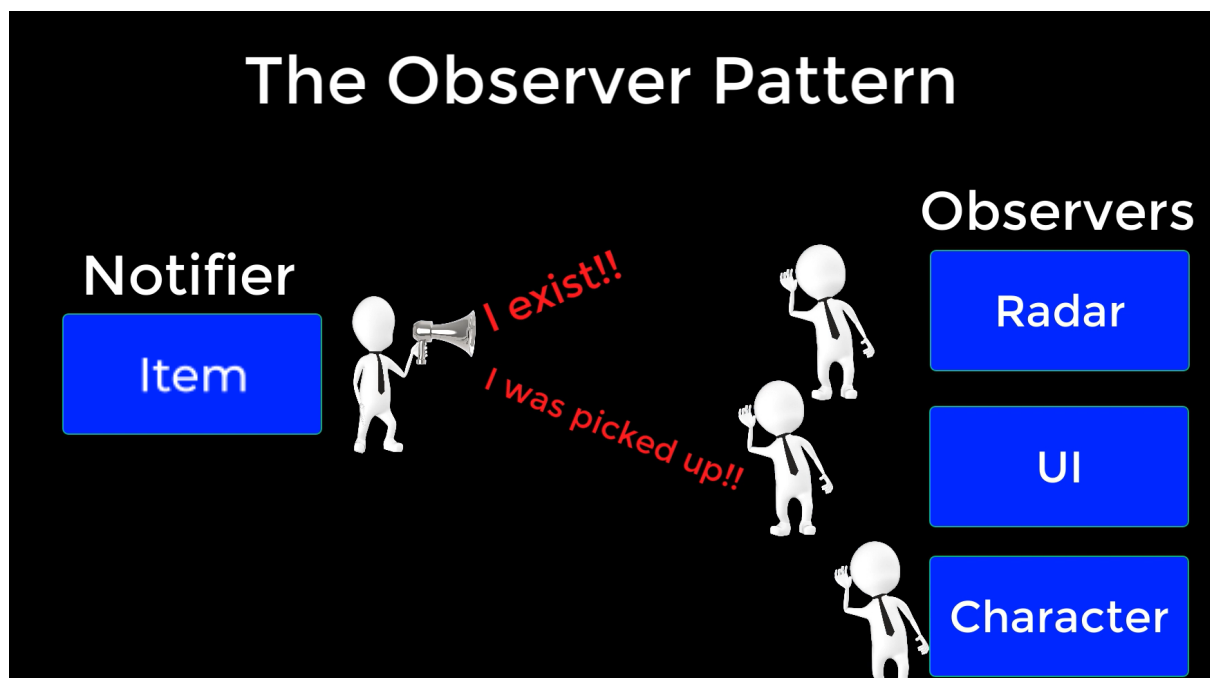


- Once an item is spawned/dropped on the map we will notify the radar to be shown up in his UI.
- Once an Item is picked up we will notify the UI to display a text message.
- Once the player collides with an Item we will trigger a behavior.

Sample 2



Our Items (in this case Batteries and Medical Kits) will become **Notifiers** who will be watched by our **Observers** (Radar, UI and Character).

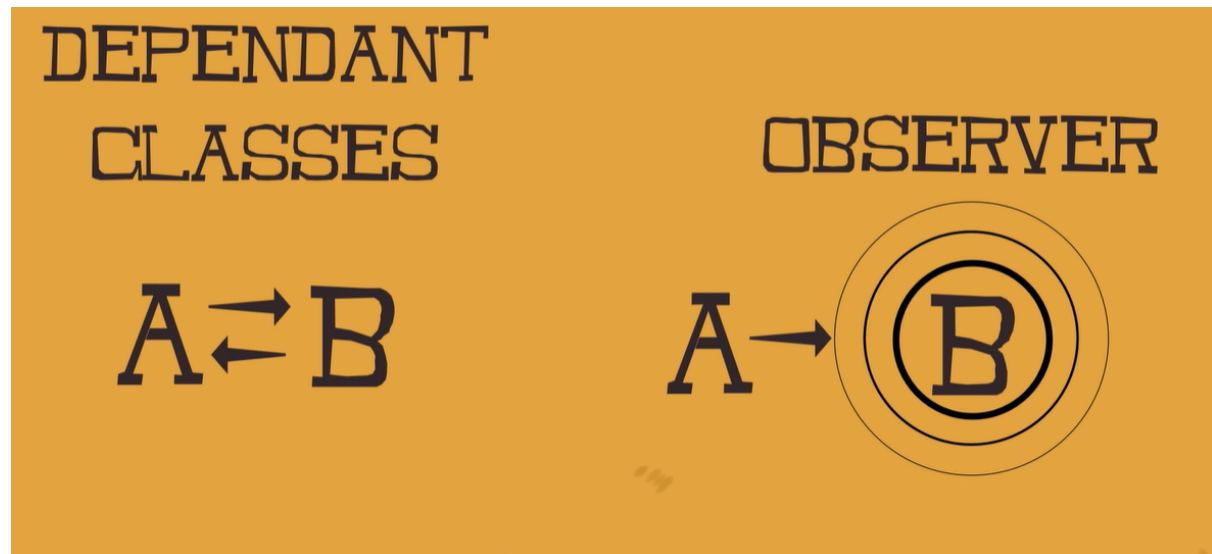


Best way to understand this pattern is creating a real scenario on Unity.

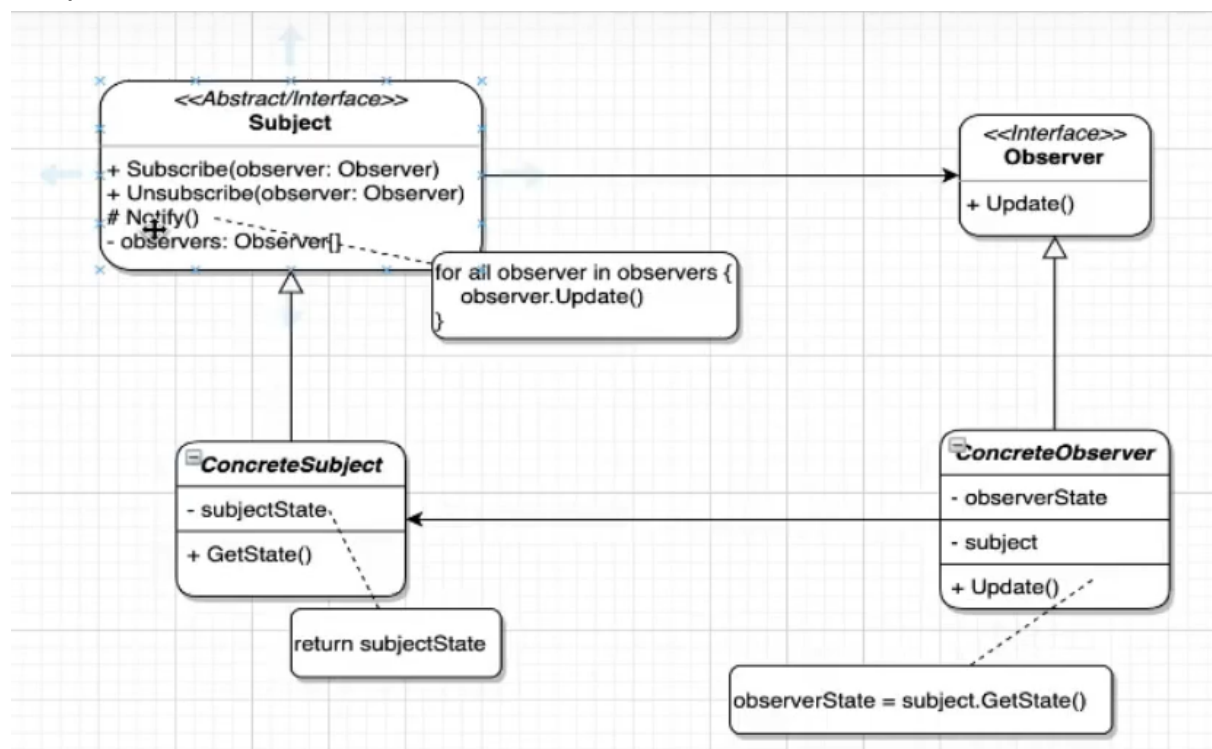
Clone the starting repository:

https://github.com/panicoli0/TheObserverPattern_NMLIH

Sample 3



Sample 4



References:

- [📺💥 Patrón OBSERVER 🧠 | PATRONES de DISEÑO para UNITY](#)
- [📺 Unity 2020 Tutorial - Events and the Observer Pattern](#)
- [Flashlight | 3D Electronics](#)
- [📺 Observer Pattern - Game Programming Patterns in Unity & C#](#)
- [Design Patterns for Game Programming](#)