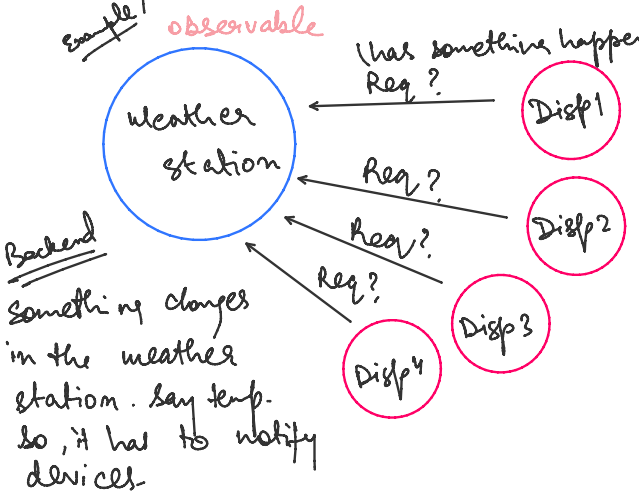
Observer Pattern

03 September 2020 02:47 AM

Q Why Do we need Observer Pattern ?

example

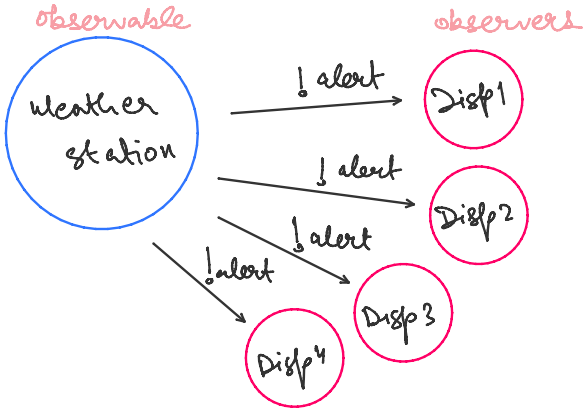


Observers

asks regularly, if the data has changed. (POLLING)

↳ leads to many wasted calls

(PUSHING) whenever the data is changed in weather station, it notifies the observers that there are some changes

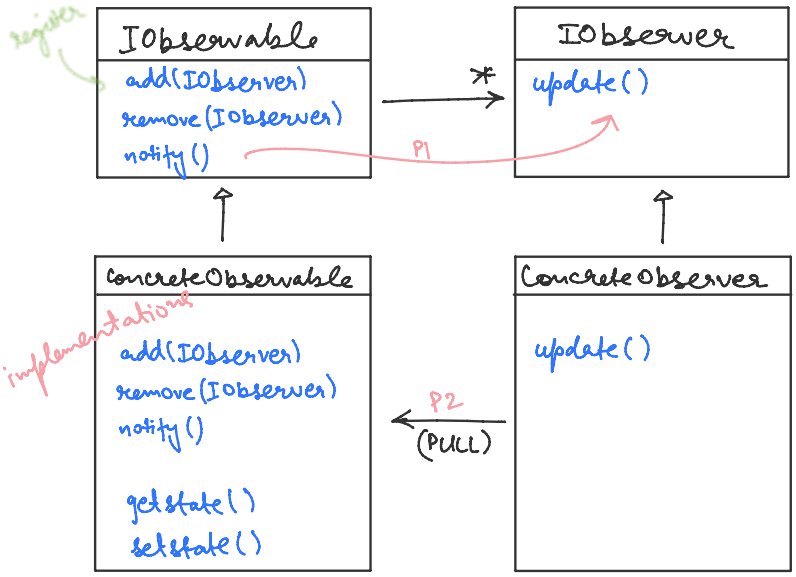


Now, to solve the problem the observer Pattern uses the PUSH Method.

Key Note

① If an observable "pushes" some changes to the observers then it must have some reference to them!

so, we can conclude that the observables must "register" themselves to the observable.



P1 : when there is a change the notify() method calls the update() method on all the observers

P2 : instantiate concreteObserver with a reference of concrete Observable
↳ this allows the observer to access the changed data in the observable.

↳ when there is a change notify() calls the update(). Now, observer knows there is a change. But how to access it / or to know what has changed ???

Definition :
Observer pattern is used when there is one-to-many relationship between objects such as if one object is modified, its dependent objects are to be notified automatically. Observer pattern falls under behavioural pattern category.