

Observer

```
// Observer
public abstract class Subscriber {
    protected Publisher publisher;
    public abstract void update();
}

public class ConcreteSubscriber extends Subscriber {
    public ConcreteSubscriber(Publisher publisher) {
        this.publisher = publisher;
        this.publisher.subscribe(this);
    }
    @Override
    public void update() {
        System.out.println("[UPDATE]: " + publisher.getState());
    }
}

import java.util.ArrayList;
public class Publisher {
    ArrayList<Subscriber> subscribers = new ArrayList<>();
    Object state = new Object();
    public Object getState() {
        return state;
    }
    public void setState(Object state) {
        this.state = state;
        notifySubscribers();
    }
    public void subscribe(Subscriber s) {
        subscribers.add(s);
    }
    public void unsubscribe(Subscriber s) {
        subscribers.remove(s);
    }
    public void notifySubscribers() {
        for(Subscriber s : subscribers) {
            s.update();
        }
    }
}
```