

For our problem we used 4 patterns.

- Proxy
- Observer
- Strategy
- Factory

Our problem we are trying to solve is, there is a video center in which only persons above age 18 is allowed to subscribe. Once they are our customer we send a notification whenever there is a new movie. Our customers are also allowed to sort the movies by Title and Price.

So to apply our first rule, to subscribe only persons above age 18, we used **proxy** pattern. Since proxy video center and real video center have the same interface, we can create illusion that user is calling the real video center of subscribe method. Whenever user calls subscribe method of proxy video center, it checks the age of the user and it will call real video centers subscribe method or it will show an error message

Observer pattern help us to send a notification to our customers whenever a movie is added to the video center.

Strategy pattern lets customers to sort the movies by Tile or price.

Factory pattern accept the name of the object and it create the real object.