

For our design, we used multiple design patterns to make sure that it would work properly and effectively. The first pattern that was making sense for the design that we chose for our application was Memento: The reason is that we are designing a web application so we will need some of the information that user inputs, to be saved and restored later on in case user decides to go back to the previous webpage or maybe return from the last option they chose. The second pattern is the Observer. There will be times when we will need different objects to be notified about a change in a particular object. For example, when a user clicks on the webpage and chooses an option, we will need other objects to be notified of it and then change the appearance or go to some other link. HTML user events are also an example of this in some way. The third pattern is the State pattern. We would have our objects change their states as well since our application is dynamic in terms of the way it is implemented. It is a web application built using HTML, CSS, and JavaScript so based on user choice, objects will need to change their state accordingly. Another pattern that was suitable for our application is Strategy. We would define multiple algorithms or basically methods, performing various functionality and place them into different classes so that our code is cleaner and makes more sense when we are implementing the application. Each object or class would have its own responsibility, so it made sense to have their own customized methods or algorithms in order to implement our application. So, these are the design patterns we have decided on for now.