# CSE 443 Object Oriented Analysis Design

## HOMEWORK 1 REPORT

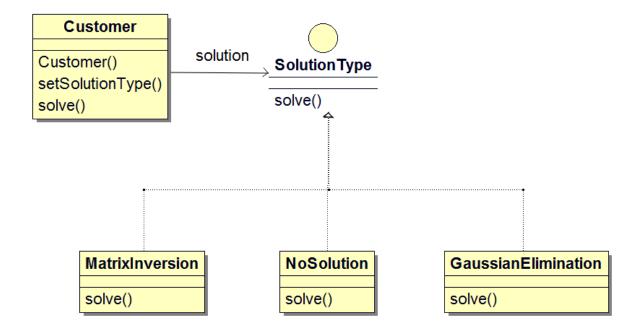
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### Part 1

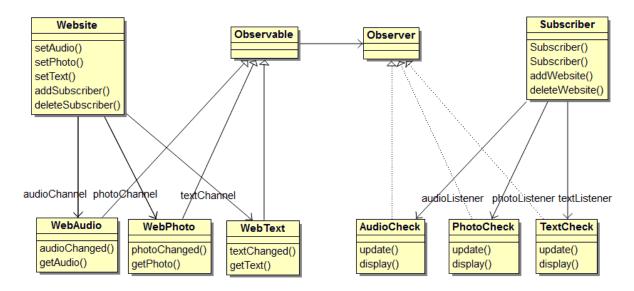
I designed this pattern as strategy design pattern since any function may need to change its behavior dynamically when required. When we create a customer object, it does not have any solving method. After we declare any solving method to the customer object that we create, the solve method of the customer object may behave as declared. Also whenever it wanted, the behavior of solve method may be changed.



**UML Diagram of Part 1** 

### Part 2

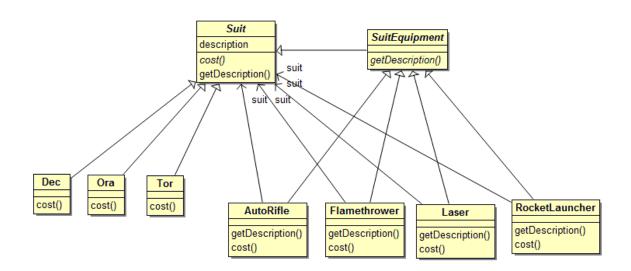
I designed the pattern as observer design pattern; since an observable class should need to notify each class which is using its data, when it makes an update about its data. When we make an observable website object, and add subscriber objects to this website object, the subscribers will get notified whenever the website object changes its data. Subscribers may also start or stop subscribing any data of this website whenever it wanted dynamically.



**UML Diagram of Part 2** 

## Part 3

I designed the last pattern as decorator design pattern; thanks to that, we can share any method among its objects. In this design each equipment adds its cost to the whole cost and let the other one adds itself and so on. This way, a method behaves like the method of any object that calls itself (think of the objects are like parameters for the method), and gives a mutual result for the main class which called the method firstly.



**UML Diagram of Part 3**