## **Exercise #4 – Advantages/Disadvantages**

## Approach #1 – Standard Interaction Pattern

<u>Advantages</u>	<u>Disadvantages</u>
Views and controllers can be added, removed, and modified without model interferences.	Views and controllers are hard to separate due to user interfaces being highly dependent on the models.
Easy top change and maintain, can be adjusted at run time.	MVC Pattern is a lot more complex due to the nature of how reliant all the components are to each other.
	Not suitable for small applications due to the performance and design constraints.

## Approach #2 – Interface Inversion Method

<u>Advantages</u>	<u>Disadvantages</u>
The inherited operators allow for the Model to talk with an interface and have the interface do the communication to instruct what the Views are supposed to do.	The purpose of the interface is not always suitable since the model itself are usually designed to be lightweight, so it has no need to use a single operator to use the Views.
The model and view are no longer dependent due to the inversion of the Interface, and it can use one operator to do multiple operator commands that the model and view originally had.	If there is also no alternate modification of the model, there is no need to use an Interface View to try and communicate.

## Approach #3 – Subject/Observer Pattern

<u>Advantages</u>	<u>Disadvantages</u>
Data and changes are observed and notified without having to make direct changes to the views and models when the respective interaction happens.	The Subject itself does not know any details regarding the Observers (which is the Views), which can lead to repeated updates to the Observers.
Allows for multiple views with the same model without having to make any changes to the model itself.	The way the model is notified through this pattern is random and no distinct order based on what the Observer gives.