

Question 4: Comment on the advantages and disadvantages of the 3 approaches

Approach	Advantages	Disadvantages
1. Standard interaction pattern	<ul style="list-style-type: none"><li>-Shows how objects communicate without becoming entangled with each other's data models and methods</li><li>-Helps run code faster by providing a clear picture of how to implement the design</li></ul>	<p>Problems will occur when not used as it helps understand the problems and solve them effectively</p>
2. Interfaces	<ul style="list-style-type: none"><li>-Allows great flexibility in results</li><li>-Sets the communication boundary between two entities such as two pieces of software</li></ul>	<ul style="list-style-type: none"><li>-Many patterns depend on the interface pattern as there is no way to know anything about an object without going through its interface</li><li>-An object's interface does not provide any information about its implementation</li></ul>
3. Observer pattern	<ul style="list-style-type: none"><li>-Observers can be added or removed at any time</li><li>-Allows sending data to other objects effectively without making any changes in the subject or Observer Classes</li></ul>	<ul style="list-style-type: none"><li>-Subscribers are notified in random order</li><li>-If it is not implemented properly then the Observer can add complexity and lead to inadvertent performance issues</li></ul>