**Exercise: *Observer Pattern***

**Duration:** 60 Minutes

**The Challenge:**

In this exercise, you are required to design and implement GUI-based project by using Observer Pattern.

There are various classes of shapes (Rectangle, Circle, etc) objects display on the client area of a Form. These objects might subscribe to zero or more Controller objects.

Every Controller object might have a different frequency to acknowledge the participated shapes objects. Upon received the acknowledgement, the shapes objects must update themselves based on the two pieces of information provided through the acknowledgement:

1. Direction to move
2. No of Pixels to move

There are 4 Controller objects, each will take care of one of the following directions:

* LEFT
* UP
* RIGHT
* DOWN