**Use case Specification- Timer**

**Use Case Name:** Timer

**Goal in Context:** The Timer is used to indicate the duration of the game(i.e 20 seconds). The timer is used to end the game.

**Preconditions:** The game should have started.

**Successful End Condition:** Displays “Game Over” message at the end of the game duration( i.e 0 seconds) and the game should end.

**Failed End Condition:** The Timer duration has ended and the game did not end and did not display the “Game Over” message.

**Primary Actors:** TimerSubject, StopGame and DisplayMessage

**Secondary Actors:** TimerObserver

**Trigger:** The timer starts(i.e 20 seconds) at the start of the game.

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**Main flow Step Action**

1. The TimerSubject calls the setState method with state as "TimeOn" when the game starts.

1.1 The TimerSubject notifies the

TimerObserver.

1.1.1 When the time reduces to 0 the

“TimeOff” state is set and it is notified to the StopGame class from the gameOver method.

1.1.2 The TimerSubject lets the

DisplayMessage class know that the game has ended.

1. The DisplayMessage displays a

“GameOver” message and the Stop Game ends the game.

**Use case Specification- ScoreBoard**

**Use Case Name: ScoreBoard**

**Goal in Context:**

**Preconditions:**

**Successful End Condition:**

**Failed End Condition:**

**Primary Actors:**

**Secondary Actors:**

**Trigger:**

**Main flow:**

**Extensions:**