**Solution for Whitehatjr Assignment**

Below is the wireframe considered for creating the countdown timer,

Timer

**Countdown Header**

Start Button

Reset Button

For Creating countdown timer I have followed below steps:-

1. Added Heading for the timer
2. Added <svg> tag with circle element inside it to draw the timer ring
3. Added <span> tag to show remaining time
4. Wrapped <svg> <span> tag inside a div with class base-timer
5. Add **start** and **Reset** Button
6. Apply styles to base-timer
7. Remove fill and stroke from the circle so that we can add reaming time inside it
8. Set the circle’s color and width
9. Set up the timer
10. Create the javascript method **formatTimeLeft** to format the time
11. Add this function to the id named ‘base-timer-label’ to shoe the timer
12. Create 3 variables named
    1. **TIME\_LIMIT** – It represents the initial value of time
    2. **timePassed** – This Should increase over time and we will subtract it form TIME\_LIMIT
    3. **timeLeft** – time left the current time
13. Create a function called start timer
    1. Set Counter Interval
    2. Increment timePassed value each second
    3. Recomputed the new value for timeLeft
    4. Update the value in the template
    5. If timeleft it 0 clearInterval so that it will not work for negative numbers
14. To animate the circle add second yellow color on top of the circle
    1. Add Path element to create second (yellow) circle
15. To animate the circle I manipulated stroke-dasharray value, which is an attribute of path element
    1. Create two functions named as **calculateTimeFraction** and **setCircleDashedArray**
    2. **calculateTimeFraction** – This function calculates what fraction of the initial time is left
    3. **setCircleDashedArray**- This function calculates stroke-dasharray value and updates the path element
16. Call **setCircleDashedArray** function inside the **startTimer** function so that value will be updated every second
17. On Click of start button Call **startTimer** function and add disabled attribute to the button so that it will not be clickable one the timer finish.
18. On click of reset button reset the below values and clear interval
    1. TIME\_LIMIT
    2. timePassed