# Website Rendering by a Browser.

## Flow of the process:



## Parsing HTML

* It reads through each tags of the all the elements line by line and creates a token for each elements. This process will create the parse tree of HTML elements.
* And the parse tree is taken and converted into the DOM tree.

1. Parsing CSS

* Its same as parsing the HTML. It will create the CSSOM(CSS Object Model) like the DOM.
* It will go through the style sheets and reads all the rules, and then it goes through the selectors and decorations and create a tree like structure same as the DOM.

1. Render Tree

* In this stage it will combine the both DOM and CSS Object model and creates the render tree.
* This is what the clients will see on the browsers.

1. Layout

* The recursive process happens in this stage. It will traverse through the render tree, and based on all the dimensions of the elements, It will layout all the children and figures out where all the elements sits.
* And when something changes in the DOM, the render tree will re-layout itself. Like changing the margin of an element or changing the font size or resizing the browser window etc…

1. Paint

* Its an incremental process which will works its way up from the bottom, it will take the laid out render tree and paints one by one according to the render styles.
* It produces a bitmap from each layers. And it is uploaded to the Graphics card as a texture. And it will combine all the texture into a final image for rendering.