What is HTML DOM?

Points:

1. HTML DOM is a API or platform or interface in the form of API to call the java scripts functions which are provided by specific browsers. For instance, chrome provides its own DOM and same holds true for firefox and IE that’s why some times we say DOM is very slow in IE as against chrome or firefox. Sometimes, we say that our script is working fine in IE 7,8 but in IE 10 because DOM structure for all the IE versions are different.

Because of different DOM structures implemented by different browsers so sometimes, we noticed that some elements or ajax components loaded very slowly in one specific browser but load fast in another browsers. So it all depends upon the DOM structure of browesrs.

Due to above, sometimes we got staleElementException exception.

1. Three kind of DOMS: HTML, XML and CODE.
2. According WWC standars, all browser provide CRUD (ADD (C), GET (R), DELETE (D), Update (U) API’s to manipulate the DOM strctures. So this CRUD api is specific to each browser. If we rememeber, we ues document.getElementByID function by using ‘javascriptExecutor’. That’s why look and feel of website (or its webelements) are sometimes different depending upon the browser. That’s why elements looks in safari and does not look in IE.
3. Every page in brower has it’s own DOM. For example, home page and login page both having different DOM and DOM’s are loaded always run time. When ever the page is loaded, browser automatically creates the DOM structure of page. So whenever we refresh the page, fresh dom (which is different from dom structure before refresh) of that particular page is loaded. Look at the following example screen shot, where we noticed that after the second step , page got refreshed and after the refresh, though page remains the same but now different DOM strucuture is loaded.

As we can see, we are getting a list of webelments in list which for example,have 21 webelment/or checkboxes got stored in say Object1. Then we refresh the page, so after the refresh, new fresh dom strucutre is loaded and now if we try to click on any of the checkbox or web element then the ‘staleElementException’ will be thrown because we are trying to clikc on elments stored in object1 which got generated before the page refresh.





Solution to above problem is that we again need to fetch the element list after the refresh page step.

Anothre example of staleelement exception can be when some section of page (or ajax) got refreshed.

**Conclusion:** HTML DOM is an interface provided by specific browser which is powerered by different API such as CRUD. So, page display is different across multiple browser . For example, some times we see some button is disabled or link is not visibale on IE but not on the firefox.