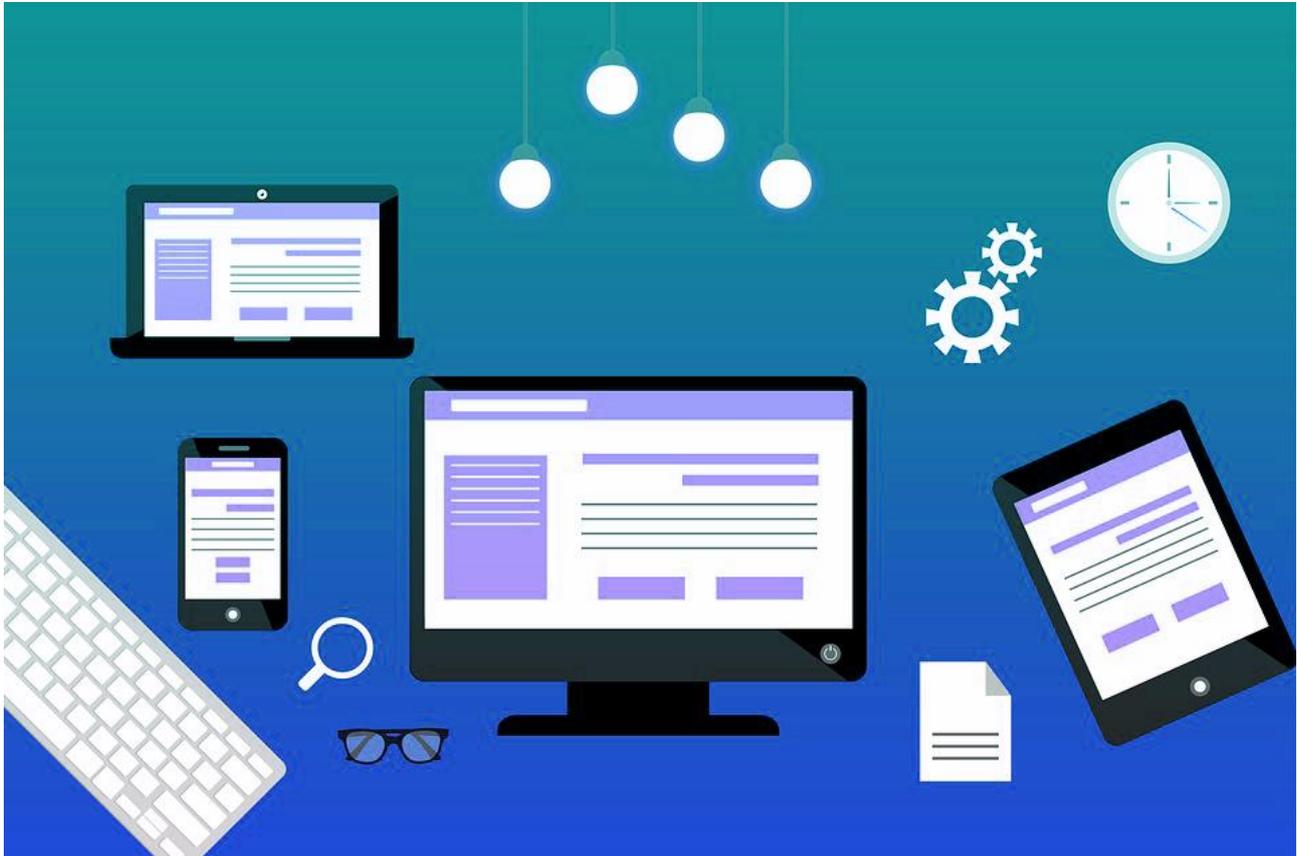# UPGRADES IN UX

Earlier era of UX

Firstly, let us touch base with the basic aspects of UX. UX era started with HTML and CSS. HTML is a markup language and CSS is a language to style an HTML document. HTML gives structure to a webpage and CSS gives style to the structured web-page. But both of these languages are not programming languages. MOURI Tech believes that these are the roots of all web technologies.

Developers initially used only HTML and CSS to write codes for different screen sizes. But after a period of time, it started impacting the browsing experience.

Creating huge web-pages and dynamic pages is quite a challenge with only HTML and CSS. Owing to the technical growth and new requirements, updates to the next version were needed.

Journey of CSS, SASS, and LESS

Basically CSS is a language, for styling a HTML document by beautifying and structuring it. As requirements are increasing, it gets difficult to be dependent on only CSS. SASS was released in 2006 and LESS was released in 2009. Both LESS and SASS have many functions, variables, namespaces, nesting and many components. The differences are, some languages need to be compiled and in other languages, logical functions are different.

	CSS	LESS	SASS
Selector	Available	Available	Available
Variables	-	Available	Available
Mixins	-	Available	Available
Operators	-	Available	-
Functions	-	Available	Available
JavaScript	-	Available	-
Compiles into	NA	JavaScript	CSS

Need for JavaScript and jQuery

JavaScript is the root of the all the scripting frameworks. It's a programming language generally used for web pages. In the era of the UX, we need jQuery, which is basically a JavaScript library. HTML and CSS can make static web pages and jQuery adds dynamic nature to the web pages, making it easy to use JavaScript. JavaScript asks to the browser to do the required actions, and the browser actually does the work. This makes the front end work easier.

Experts have used amazing combination of these frameworks and CSS pre-processing languages to create one more framework known as "Bootstrap".

First front end framework "Bootstrap"

Bootstrap is the first front end framework developed by Mark Otto and Jacob Thornton at Twitter on August 19, 2011. This framework is built using HTML, CSS, LESS, jQuery. This framework has standards like grid system and components such as forms, buttons, modals, tables and so on.

As it has defined breakpoints, one can create responsive and dynamic web-pages for all the devices. These are the major benefits of this framework. Bootstrap 4 was released in 10th August 2017. In this version, developers replaced LESS with SCSS, as LESS is JavaScript driven. They have also included flexbox, custom navigation, utility classes for components, spacing and sizing utilities and improved many existing classes. They have removed the features like panel, thumbnail, pager, browser support for IE8, IE9, and iOS 6. All these features definitely excite a developer to make web-pages.

Upcoming version of Bootstrap

The most exciting version of Bootstrap - Bootstrap 5 is expected to be releasing in the upcoming year (2020). In this version, experts are estimated to be working on improving the performance and responsiveness along with reducing the dependencies and load time. Experts are planning to switch from jQuery to native JavaScript. Also, it will not support IE10 and the UI testing environment will change from QUnit to Jasmine.

Currently the UI developers are waiting for the new version and getting ready to navigate to the new Bootstrap's environment.

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