

# FROM .PSD TO INTERACTIVE WEBSITE: MODERN INSTRUMENTS FOR FRONT-END DEVELOPMENT

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## **Abstract:**

*Today, information is the most important instrument in all areas of our life. It's important to develop tools that can transfer pieces of information from one point to another. Moreover, it's adaptive for every user. Web-application is the best choice.*

**Keywords:** web-page, browser, programming language, stylization, information, calculation.

## **Анотація:**

*На сьогоднішній день, інформація відіграє ключову роль у всіх сферах нашого життя. Актуальним питанням є розробка швидких та комфортних засобів, завданням яких є доставка цієї інформації з одного вузла до іншого, максимальна простота у користуванні та адаптація під кожного користувача окремо. Одним із найкращих таких застосунків є веб-додатки.*

**Ключові слова:** веб-сторінка, браузер, мова програмування, стилізація, інформація, обчислення.

## **Introduction**

Information...What does it mean? When and where do we use it? Who creates information? Answers for these questions you can find in the huge global network system called the Internet. What is it "Internet"? - Information. As you can see, information is an integral part of every present person. All principles of modern society are based on information and information traffic. But how can we move certain pieces of information, such as availability of particular item in shop or shipment status of your package, from one person to another? In what way person living, for example in Canada, can find out the latest news from Sri-Lanka? Definitely, for these purposes we use web-content like web-pages, web-applications and other similar things. But who creates this and how it works?

People who use any online site, just don't think about big amount of work that was done for creating this, but author of the site exactly knows how many hours you need for creating something like that and which technologies are necessary. This guy (for example, it can be a company) doesn't write each site for its own use, he receives an order from a customer. What about using technologies? This topic includes great amount of methods, programming languages and other parts, but I'll try to tell only about the most frequently used technologies.

## **Instruments for front-end development**

HTML is the oldest technology comparing to others, but the most popular one today. HTML is really easy to use, it can be suitable for both beginner and knowledgeable programmer. Every person who has a desire to start learning web-programming definitely starts from HTML. For using this you don't need special IDE, usual

notepad will be enough to start writing a code. Be careful, because HTML isn't a programming language. It's just a language for writing markup of your site. This language consists of a lot of tags, which allow you to create main structure of your web page.

CSS definitely depends on HTML. With CSS help you can stylize web page by adding different text indents and intervals, colors of page background, control location of your page elements with horizontal and vertical line. In generally CSS is a page design, without it your page will be very awful and no one will use it.

JavaScript. Modern sites aren't intended only for information output. Nowadays people store personal data, calculate math operations and use sites for performing necessary tasks. So, sites have become a large structure that includes performing many scripts, calculating these scripts and sorting extremely big amount of data. For all these actions you can use JavaScript. It's flex programming language suitable for completing many tasks. JS is supported by all existing at this moment browsers. JavaScript allows web-developers to expand site features. Property registration or application forms, different sliders, adaptive tips for certain user, manipulations with html tags and CSS selectors, writing information about user activity – all these actions are only a bit of all opportunities of JavaScript. One more advantage of this languages is ability to be integrated into usual html code of page without any problems. An interesting fact: when JavaScript was in development stage, it had a name "Live Script", but in those times programming language which is called JAVA was enormously popular and marketers decided that similar name would help new language to become more popular and fast increase amount of users. JavaScript creators planned that JS would be a "younger brother" of Java, but eventually JS has included new and new technologies and from a small language has turned into a huge instrument to solve almost all existing problems. JavaScript has its own specification "ECMAScript". To sum up, JS with its frameworks and libraries is the main instrument of front-end developing for a web developer in a comfortable way.

Native languages are good instruments for any developer, but it isn't enough for realizing a great site with large back-end part and interactive front-end part. By improving instruments of developing, people create different frameworks, libraries and others. These tools based on native languages make coding much easier, add new functionality and allow to use one programming language in a lot of ways. Good examples of these instruments can be Angular, Node.js, React, jQuery and others.

## Conclusion

In conclusion, I must admit that using some of these instruments, developers can create proper online sites for millions of usual users.

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