

THE STAGES OF WEB APPLICATION DEVELOPMENT

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Nowadays, we can't imagine our life without internet. About 15 years ago, people started to realize the structure of the World Wide Web and the meaning of the word "Website". Hierarchy and structure of the web is quite difficult, so we will discuss just a part of it, namely web development.

Website is a popular naming of web resource, so the statement that every web resource is a website is wrong. Modern definition of any web resource is "Web Application". So there is a difference between website and web application. Websites, nowadays, are mostly information resources (some kind of digital magazine or newspaper) such as Wikipedia. But web application, frequently, is a huge resource with a complex architecture and many functions which visitor can use. Thus website is static, while web application is fully dynamic. [1]

This article deals with web applications due to their relevance. Basically, we can distinguish 5 major steps of web app development:

1. Technical task and architecture;
2. Design;
3. Frontend;
4. Backend;
5. Test and release.

As the first step, developers should try to understand what the client wants and make some plan for managing this task (Create architecture of future web app, segregation of duties etc.).

The second step is creating a beautiful, understandable and creative design (programmers are not involved in this part).

The third part calls "Frontend" and it is a part of web app which you can see. It consists of HTML, CSS and JS. [2]

- HTML — is a hypertext markup language (it makes markup of any web page);

- CSS — cascade style sheets (controls the view of any web page);
- JS (Javascript) — adds dynamic (animations, popups etc.).

The fourth part is backend, which is a part of web app you can't see. It's a server and functional elements. It consists of server programming language (like PHP, Python, Go, Java, Ruby, C#, etc.) and database.

This is the most difficult part of development, because all the application logic, functional , relationships between objects on application and scenarios are created here. All this things are implemented with programming language and all the information of the web app is in database. This logic is suitable for one pattern of programming which is called “MVC”. MVC means Model, View and Controller. It has the following principle of operation is: client appeals to controller => controller appeals to model => model appeals to database. Then database returns information to model and model brings back some data to controller. And the last stage: controller forms view (which user actually see) with considering of database and model information. [3]

And the last step is testing and release. Tests are used to identify errors or “bugs” and help to improve architecture of web app. Release is a launch of the finished software product.

Thus, there is a significant difference between the concept of website and web application. Web application development falls into 5 major steps, which are technical task and architecture, design, frontend, backend, test and release.

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