O. Kotvytskyi, Master student
V. Shadura, Senior lecturer, language advisor
Zhytomyr Polytechnic State University

NEW ARCHITECTURE FOR WEBSITES CREATION

The JAMstack architecture of website creation is analyzed. The advantages of static sites over "classic" dynamic are given. Basic concepts of architecture are considered and described.

Nowadays most of websites are dynamically generated. It means that the prepared web pages are generated by web server which uses HTTP/HTTPS protocol and returns main page to the internet browser as a response for user request. Because of this, if site has more than one page, the time for load every single page increases proportionally to the number of media resources on the webpage.

The JAM stack architecture was developed exactly to solve the problem of long webpage load time. The main idea is the static generation of linked HTML pages. It provides loading of all pages once and such pages don't require additional loading when you switch from one page to another. This approach significantly increases website working speed.
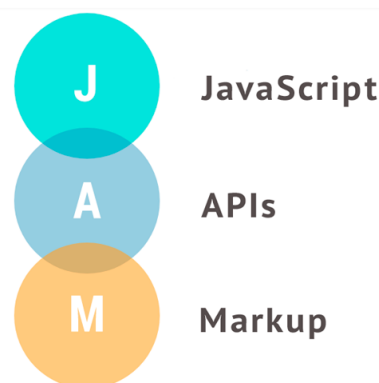

Figure 1 – main components of JAMstack architecture

Let's consider figure 1:

- JavaScript – common scripts for providing website interactivity and user's interaction with DOM elements of webpage;
- API (Application Interface) – is a source for input information or content which is built in Markup template. It could be presented as: the content files, which are located directly in content generator; third party administrative panel, which is plugged into the site generator; full REST API for output more complex and structured data;
- Markup – pain HTML files or third party SSG (Static Site Generator) for static webpages creation.

CONCLUSIONS

So, JAMstack is a modern architecture for websites creation which allows significantly increase websites working speed and reduce development time. Webpages are generated all at once and don't require additional loading from web

server. Using this architecture, you also don't depend on web server, because your webpages are static.

REFERENCES
1. JAMstack official website [Electronic resource] – https://jamstack.org/