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2. O.G. Trofymenko, Yu.V. Prokop, I.H. Shvayko, L.M. Bukata and etc. C++. Fundamentals of programming. Theory and practice: a textbook. Under the editorship O.H. Trofimenko. Odesa : Phoenix, 2010, 544 p. (in Ukrainian).

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USING ANGULAR FRAMEWORK FOR WEB DEVELOPMENT

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In recent years, Angular has become one of the most popular frameworks that was designed to create applications. Today, it is important for developers to use the framework in their work. It provides a large number of pre-built components that give developers the ability to extend and customize them depending on the app they are implementing.

The aim of the study is to find out how the framework works and how it is applied in the work of developers. Angular is an open source of web application framework based on TypeScript. It performs various web development actions and improves the application or website with the necessary functions. Angular has expanded significantly and has a large set of features and capabilities. With the large community behind it, it has an influx of useful content. Frameworks, such as Angular and React, are now a very common set for developing an external interface, and today rarely anyone decides to create an external application without its leveraging. The advantages of using frameworks range from reducing template code to providing a coherent structure and layout for program development. The main objective is always to reduce the time spent on cruff and focus more on the main functions that we want to provide [1].

The main value of the framework is to make it possible to create applications that work on almost any platform – mobile, browser or desktop. It comes as a separate framework for front-end development and can be used for enterprise software development. If the project is a complex web program with many functions, then Angular is the best choice for this particular project. Creating web applications that can meet the needs of users, the quality and

complexity of programs are constantly growing, as well as user's expectations for quality and capabilities. You can consider website as a part of the functionality of a full-fledged web application, identifying it as purely a website. It becomes easier to use a set of more constrained tools that will often give better results and it also allows to achieve this result in short time. Web application toolkits and frameworks may seem powerful, it often breaks the important foundation of the Web. Angular is considered to be more secure due to the presence of system methods to ensure the security of projects. It also supports server authentication and authorization, which significantly minimizes the occurrence of possible attacks [2].

Angular is an excellent solution for the development of very different projects of varying complexity. However, there are several options where this structure can be especially relevant and bring maximum benefit:

1. Enterprise web applications. Angular 2+ has all the features you need to develop large-scale projects. It comes with autocomplete, advanced refactoring and navigation features. What's more, thanks to the architecture of this tool, you can easily reuse and maintain the code. Three examples of the best exploit of it are Gmail, YouTube TV, Udacity;

2. Apps with dynamic content. It is great for programming interactive and user-friendly interface elements for creating user widgets or developing and implementing dynamic dashboards. Moreover, it is an ideal technology for a website where content needs to change dynamically depending on the behavior and preferences of users. Wikiwand, Forbes program, JetBlue are the examples of it;

3. Development of e-commerce. Angular is convenient for developing e-commerce, designing shopping carts and entire marketplaces. Being a powerful tool, it is a part of search engines, text editors, real-time maps, and streaming applications.

We can state that advantages of using Angular are analyzed and the main tools of the Angular framework for creating web applications are considered. It should be noted that the development of web applications is sometimes a rather laborious task, and entire development teams are involved in its solution. Along with the great level of such projects complexity, the need to choose the right tools for software implementation is also growing now.

References

1. Shyam S. Angular : Up and Running Learning Angular, Step by Step. Published by O'Reilly Media, Inc. Vol. 1005. Gravenstein Highway North, Sebastopol, CA 95472, 2018, 12 p.

2. Chris N. The Full Stack Developer. Your Essential Guide to the Everyday Skills Expected of a Modern Full Stack Web Developer. Manchester, UK. Library of Congress Control Number: 2018964579, 2018, 8 p.