ICT, Electronics, Programming, Geodesy

UDC 004.588

DEVELOPMENT OF A TRAINING PLATFORM FOR JUNIOR SPECIALISTS IN THE FIELD OF TESTING SOFTWARE

A. DYSIN, O. GOLUBEVA Polotsk State University, Belarus

This article describes the concept of developing a training platform for testing software and the most suitable tools for the development of lodging. The key points in the program are described.

Recently, the popularity of the information technology industry has been growing. The number of companies engaged in information technology services is becoming more and more. The demand for developers and testing specialists is also increasing.

Many IT companies organize their own laboratories in which they train future specialists from scratch. However, not everyone who wants to get a well-paid position is worthy to study at the expense of the company in such laboratories.

Inexperienced junior developers fill the labour market in the field of information technology. For many beginner testers and developers, it is not so easy to find their first job, even after successful graduation from higher or secondary special educational institutions, as well as specialized courses.

Employers, as a rule, are not ready to hire employees without commercial sky experience. Thus, there was a need to help beginners and young professionals get the experience necessary for their future work.

One of the most popular and most sought-after professions in the information industry nowadays is a software tester. Therefore, the subject of work on the training platform is a set of services that will allow future specialists to improve their professional skills.

Testing is a process that contains all the activities of the life cycle, both dynamic and static, related to the planning, preparation and evaluation of a software product and connected with work in order to determine that they meet the described requirements, show that they are suitable for the stated purposes and for identifying defects [1].

A software tester is an experienced professional who takes part in testing a component or a system [1].

Figuratively expressed, the main goal of a tester is "to understand what the project currently needs, whether the project receives what is necessary or appropriate and, if it does not, how to change the situation for the better " [2].

It is the responsibility of a testing specialist to search for probable errors and failures in its function, positioning the test object (system, component, etc.). A tester models different situations that may arise in the process of using the subject of testing so that developers were able to correct the detected errors before the product goes into implementation to real users.

In this article we would like to describe the development of a platform for testing. This board is the form with private links to resources, which will contain both theoretical information on the topic and cases from the developers' and testers' practice. As in any sphere of information services, about 70% of testing is practice, then there is an ability of testers to find errors in applications. Thus, a platform will be developed in the game, where within a limited time it will be necessary to find the maximum number of defects.

This is a kind of a training base for future experts in the field of testing. To provide structured learning, the training platform will be divided into three modules: "Testing Web applications", "Testing mobile applications", "Testing Desktop applications." There will be an opportunity to train their skills separately depending on the chosen specialization.

To ensure that the tasks are completed correctly, there are modal windows in which the user will indicate the following data:

- the component in which the error was detected;
- type of testing;
- criticality of error.

In addition to the practical tasks faced by a specialist in testing, there is a large amount of work connected with writing test documentation (check lists, test cases, defect reports, test reports, test plans, etc.). A defect report is a document containing a report of any deficiency in a component or a system, which can lead a component or a system to the inability to perform the required function [1]. This document should contain correct, uniform terminology describing the elements of the user interface and event data elements that cause errors.

ICT, Electronics, Programming, Geodesy

In general, it consists of the following fields:

- header (brief description of the problem, project, application component, version, severity, priority, status, author, appointment);
- environment;
- description (reproduction steps, actual result, expected result);
- additions (attached file) [3].

As a part of the development of this service, it will be possible to describe, as a tester believes, identified errors and save them in your account.

The prototype is the popular paid Atlassian Jira system used in commercial projects that allows you to describe and create reports on errors found in the system or component [4].

The platform will be developed using the popular Vue.js front-end framework, the base MySQL data and Node.js. Vue.js – an open source JavaScript framework for creating custom tools.

It easily integrates into projects using other JavaScript libraries. It may be fun Design as a web framework for developing single-page reactive-style applications [5].

The necessary qualities of a tester are logical thinking, attentiveness, quick-wittedness, good memory, the ability to learn and adapt to existing tasks, quickly switch from one type of task to another. Patience, perseverance, creativity and ability to work in a team are also important. Moreover, a tester acts simultaneously as a user, and as an expert, and therefore must have a certain way of thinking: be able to reproduce behaviour of the user of the product and analyze the behaviour of the system, the input parameters and the results obtained from the point of view of the engineer. Thus, after using the training platform, future testing experts will also be able to improve the qualities necessary for the work. In conclusion, we would like to mention that this platform will be further developed and not only testers can become highly qualified specialists, but also software drivers.

REFERENCES

- 1. Standard glossary of terms used in Software Testing [Электронный ресурс]. 2014. Режим доступа: https://www.rstqb.org/ru/istqb-downloads.html. Дата доступа: 23.09.2019.
- 2. Куликов, С.С. Тестирование программного обеспечения: базовый курс / С. С. Куликов. Минск: Четыре четверти, 2017. 312 с.
- 3. Центр подготовки IT специалистов [Электронный ресурс] / Bug-report. 2016. Режим доступа: https://qalight.com.ua/baza-znaniy/bug-report. Дата доступа: 24.09.2019.
- 4. Atlassian Jira Software [Электронный ресурс]. 2016. Режим доступа: https://www.atlassian.com/ru/software/jira Дата доступа: 24.09.2019.
- 5. The Progressive JavaScript Framework [Электронный ресурс]. 2014. Режим доступа: https://vuejs.org/ - Дата доступа: 25.09.2019.