

INCREASING THE FAULT TOLERANCE OF THE APPLICATION THAT DETERMINES THE OCCUPANCY OF THE COMMUNICATION LINE

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Today, the number of mobile device users is growing every day. More and more web applications and sites are moving to mobile platforms.

However, the main task of a mobile device is to make calls. It would be convenient for users to use a special application and monitor whether a contact is talking or not.

The purpose of this paper is to review the means and methods to improve the fault tolerance of the software, which allows to determine the occupancy of the communication line. Let us first separate two concepts:

- Fault tolerance is the ability of a system, if one or more servers fail, to continue operating within the required parameters.

- Fault tolerant systems are those that have full redundancy (the so-called second shoulder) and are able to operate without significant drawdown in the event of a complete failure of one of the data centers.

In this paper, we will talk about a fault-tolerant application. The main problem that may arise is a bad Internet connection or no connection at all. In the first case it is necessary to create your own overlay network to buffer and control the data. When transmitting through your own overlay network, you may lose data transfer speed, but in this case, you can guarantee lossless data exchange.

Also, to reduce the load on the network and, as a consequence, to increase fault tolerance, it is necessary to send the smallest possible amount of data (send only on request).

For future studies it is proposed to investigate the localization of this application (whether it will not contradict the laws of this or that country, violate human rights and freedoms), as well as the possibility of creating this application without using the Internet or in conditions of low-bandwidth network channel.

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FEATURES OF USING EXTREME PROGRAMMING IN SOFTWARE DEVELOPMENT

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Extreme Programming, Extreme Programming, XP - Agile development methodology that took the best from agile development practices and leveraged them to the maximum - hence the word "extreme" in the name. Unlike other programming methods that can be used in a wide variety of startups and businesses, and in organizing personal affairs, XP is used exclusively in software development. There are four processes in extreme programming: coding, testing, design, listening. This methodology is characterized by high quality, teamwork and high quality.

The purpose of the report is to highlight the features and nuances in software development using the extreme programming method.

XP has some special practices, the most famous of which is pair programming. The bottom line is that two developers simultaneously work on the code for one product function: first one writes, and the second observes and fixes errors, and vice versa. Thus, in the process of creation, there are two solutions, at each stage the best is chosen [1].

Pair practice is carried out according to the principle: two are better than one. Another feature of extreme programming is that tests are created and prepared first, and then the code and the product itself. In this case, the tests are written by the programmers themselves. Testing provides an opportunity to fix almost all errors at the development stage. The third feature is collective code ownership. Each programmer in the team has access to the product code and everyone can make changes to it. But if suddenly corrections and changes led to an incorrect or incorrect project robot, then the one who made these changes should fix it [2]. Extreme programming also involves working on smaller releases. Moreover, the shorter the releases, the better the quality of the product. So the integration of new parts is the main feature and advantage of this methodology. Adding new functions and capabilities to the system at the highest possible speeds. As soon as all tests are passed with a satisfactory result, that the function works as intended, it is integrated into the system.

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ВІЙСЬКОВА АКАДЕМІЯ ЗБРОЙНИХ СИЛ
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