SRUCTURAL AND FUNCTIONAL ANALYSIS OF AN INTERACTIVE INFORMATION SYSTEM "STUDENT MOBILITY"

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Foreword. Rapid development of computer systems and networking technologies result in the fact that users have to acquire and process wealth of information that grows changes incredibly rapidly. There turns up a pressing problem how to follow-up useful current information. Under such conditions more and more systems for distant education appear; this is due to the fact that such systems have many advantages, one of them being mobility. Mobility gives an opportunity to cope with information scantiness and gives free access to current information. At the same time a full-time system of education still exists. This system of education has a low level of mobility and flexibility. The process of education continues even after classes, that is why a student needs to use the most up-to-date learning materials.One also needs information about one's current grades in all subjects. It is necessary to be in touch with lecturers and other students. It is also very important to have continuous access to one's own preliminary work and materials (term papers, research work, materials for graduation work). Having all these materials a student will be able to qualitatively process all the information without delay.

In the majority of Netware and desktop software such functions have already been realized, but they are not interconnected and adapted to students' needs. That is why, there arises a problem of developing a unified system of software for providing students' mobility and realized in the web environment. For the system accessibility it is necessary to adapt it to mobile handheld devices and modern mobile platforms (iOS, Android, Windows Mobile etc.). This system has to be based on modern programming languages and frameworks, provided that the main programming demand is reliability. The applied programming language has to have a stable and supported code and be safe in use, especially protected against

hacking and failure. The functioning of this system requires the ability to execute multiple selections and dynamically give all the data to the user. It limits the selection of a programming language for the system realization. We think that in this case the most reasonable solution is to use JavaScript and framework ExtJS based on it. Due to such connection it is possible to provide for burst performance and asynchronous operation of all the components of the system. The interactive environment of the system "Student Mobility" has to have the following functionality:

-to have cloud storage for all files (term papers, practical tasks, graduation papers, research works, etc.);

- storage for all documents has to be based on the CVS-system (a program product relating to the category of version control systems);

- to be adapted to handheld devices (either with the help of special software applications or web-based applications, the latter being more preferable);

- to have storage system for data bulks (for current grades of students in all subjects);

- to be resistant to loading (simultaneously handle the enquiries of a great number of users and managers who enter the data);

- to have a flexible interface (to be adjustable to the users' needs, clear and simple to use);

- to have a registration, authorization and authentication system for users' accounts (to prevent searching and entering incorrect information).

This system must have big operability, as a great number of users are going to work with it simultaneously. That is why it should be organized like all modern high load projects. Due this structure and separation of logics from data submitting there appears an opportunity to provide the system stability and high performance.

Conclusion. As a result of the structural and functional analysis there was proposed an interactive information system "Student Mobility". This system will help to improve the efficiency of a student due to mobility, regular awareness about student's progress and access to current teaching materials on the selected subjects.