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WEB APPLICATION FOR COLLECTION AND PROCESSING OF DATA ABOUT THE STUDENTS OF THE ACADEMIC GROUPS

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At the beginning of the academic year, as well as at the time of students' admission to a higher educational institution, various commissions, departments, units process a lot of information about future students, or they are engaged in updating this data. All these units are part of the educational process management system [1]. But at the same time, there are certain features of the system functioning that reduce the effect of using the system. First of all, it is the lack of access to information about students for academic group head student (AGHS) and curators of study groups. Secondly, ensuring the possibility of accessing information only from computers included in the network of NTU "KhPI". As a result, access to students data is possible only through a limited number of people, which especially affects the efficiency of updating information. Restrictions placed on the list of IP addresses for access, in the conditions of university work in an online format, further reduce the availability of this information.

To overcome the problematic moments, the StudentsData web application was developed to collect and process data about the students of the study group, in which head student, teacher or curator can be authorized. The AGHS and the curator have the possibility to: download the current list of students from [1] by parsing the files, the formation of which is provided for in it; to update data about students, including contact data, information about parents, addresses, form of study and receiving a scholarship. All categories of users can choose an interesting group, course, etc., then conveniently open and view the data in the form of a group list. The AGHS, teacher or curator also has the ability to organize the data, for example, by last name or by rating, and there is also a search function in the web application. A very important function is to download the list of students to an Excel table, so that in the future users can save this list at their convenience and print it for further use.

The web application StudentsData is developed on the basis of the Java EE technology stack. MySQL8 database management system is used for data storage. The framework Maven was used as a helper to automate the build and deployment of the project. Apache POI 5.0 libraries were used to read and write files in Microsoft Office formats, in particular Excel. Jakarta Server Pages technology was used to develop web pages. The deployment and testing of the application was carried out in the Tomcat 9 servlet container.

References:

1. Automated educational process management system of NTU "KhPI" // https://www.kpi.kharkov.ua/rus/informatsijni-tehnologiyi/avtomatizovana-sistema-upravlinnya-navchalnim-protsesom-ntu-hpi/.