ABSTRACT

Explanatory note size – 61 pages, contains 25 illustrations, 33 tables, 4 applications, 26 references.

Topicality. Examines the problem in the field of e-commerce with commodity distribution systems, shows the main features of the existing analogues of the system, their advantages and disadvantages. The need to improve the functionality has been identified.

The aim of the study. The main target is to expand the functionality of commodity distribution ystems and develop software for the Ukrainian market.

The object of research: methods of building commodity distribution systems.

The subject of research: methods and means of creating software for commodity distribution systems and load balancing between application data servers.

To achieve this goal, the **following tasks** were formulated:

– perform a comparative analysis of existing foreign solutions;

– choose a decision from the architecture of building a distributed system;

– implement the existing load balancing solution;

– implement support for Ukrainian marketplaces for the chosen solution;

– develop an ad analyzer for ease of use;

– investigate the effectiveness of the proposed solution.

The scientific novelty of the results of the master's dissertation is that the functionality of existing web services of distribution systems has been improved. The result is achieved through better integration with marketplaces.

The practical value of the obtained results is that the developed software can be used to aggregate ads from Ukrainian marketplaces, collect their statistics and manage them. This system can be used for further integration with many Ukrainian ad placement services.

Relationship with working with scientific programs, plans, topics. Work was performed at the Department of Informatics and Software Engineering of the National Technical University of Ukraine «Kyiv Polytechnic Institute. Igor Sikorsky».

Approbation. The scientific provisions of the dissertation were tested at the Third All-Ukrainian scientific and practical conference of young scientists and students "SOFTWARE ENGINEERING AND ADVANCED INFORMATION TECHNOLOGIES" (SoftTech-2022 autumn) - Kyiv.

Publications. The scientific provisions of the dissertation were published in:

1) Chekotun Y.D. SOFTWARE FOR COMMODITY DISTRIBUTION SYSTEM / Y.D. Chekotun, O.D. Finohenov // Materials of the Third All-Ukrainian scientific and practical conference of young scientists and students "SOFTWARE ENGINEERING AND ADVANCED INFORMATION TECHNOLOGIES" (SoftTech-2022 autumn) - Kyiv: National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute", November 23-25, 2022.

Keywords: COMMODITY, DISTRIBUTION SYSTEM, FUNCTIONALITY EXTENSION, TYPESCRIPT.