

ABSTRACT

Explanatory note size – 119 pages, contains 64 illustrations, 10 tables, 2 applications, 13 references.

Topicality. Examines the problem of analyzing user music preferences in the context of the rapid growth of music data volumes and the widespread use of streaming services, highlighting the limitations of existing solutions and the need for more accurate personalized analytics.

The aim of the study. The main target is to improve the efficiency of analyzing user music preferences through modern big data processing methods and personalized analytical models.

The object of research: the process of analyzing user music preferences.

The subject of research: methods and algorithms for processing data on user music preferences to form personalized recommendations.

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

- Definition of requirements for a platform for analyzing music preferences;
- Design of a web-platform architecture with integration capabilities for third-party music services;
- Implementation of interfaces for collecting and analyzing user preferences;
- Implementation of interactive user tools;
- Testing of the developed solution;
- Evaluation of its effectiveness.

The scientific novelty of the results of the master's dissertation is the enhancement of the methodology for developing web platforms for analyzing music preferences through the integration of modern big data algorithms, personalization techniques, scalability mechanisms, and security solutions, which improve the accuracy and efficiency of music analytics.

The practical value of the obtained results is the improvement of personalized recommendations and analytical capabilities for streaming services, the music industry, and users, with potential adaptation to other media platforms.

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».

Keywords: DIGITAL PLATFORM, ONLINE SERVICE, WEB TOOL, APPLICATION DEVELOPMENT, AUDIO DATA ANALYSIS, USER-CENTRIC RECOMMENDATIONS.