

ABSTRACT

Explanatory note size – 90 pages, contains 15 illustrations, 24 tables, 1 application, 32 references.

Topicality.The software ecosystem is becoming more and more relevant nowadays. Because with the help of modeling software engineering ecosystems, it becomes possible to solve not only the complex relationships between the products of companies in the software industry, but also to improve the development of direct software. In view of the above, the need to develop a tool for modeling software engineering ecosystems was identified.

The purpose of the dissertation research is development of a tool for modeling software engineering ecosystems that will be available as a web application, which will avoid additional development for different operating systems.

In order to realize the set goal, the following tasks have been formulated:

- on the basis of an in-depth comparative analysis of the existing theoretical provisions, clarify the essence of the software ecosystem;

- analyze existing implementations of similar software products to identify their main advantages and disadvantages;

- to determine ways to solve the main problems of modeling software engineering ecosystems;

- to develop a tool for modeling software engineering ecosystems.

Research object: software ecosystems.

The subject of research: a software engineering ecosystem modeling tool.

In the course of the research, the method of systematic mapping study (systematic literature review) was used to study and analyze the subject area of research from textual sources of information and the case study method (method of situational analysis) was used to analyze the developed method of software construction.

The scientific novelty of the results of the master's thesis lies in the fact that

a tool for modeling software engineering ecosystems is proposed.

The practical significance of the obtained results lies in the development of software for modeling software engineering ecosystems.

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 International Multidisciplinary Scientific Internet Conference (Ternopil, Ukraine - Pervorsk, Poland, October 25-26, 2022); Third Ukrainian Scientific and Practical Conference of Young Scientists and Students "Software Engineering and Advanced Information Technologies"

Publications. 1. Skryhun V.O. Software ecosystems: essence and types. The world of scientific research. Issue 13: materials of the International Multidisciplinary Scientific Internet Conference, (Ternopil, Ukraine - Pervorsk, Poland, October 25-26, 2022) / [edited by: O. Patryak and others]; NGO "Scientific Community"; WSSG in Przeworsk. – Ternopil: FO-P Shpak V.B., 2022. P. 82-83. 2. Skryhun V.O. Modeling the software engineering ecosystem. Materials of the Third All-Ukrainian Scientific and Practical Conference of Young Scientists and Students "Software Engineering and Advanced Information Technologies" (SoftTech2022). Section of the Department of Informatics and Software Engineering. Kyiv. 2022. November 23-25, 2022. Kyiv: 2022.

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