

ANNOTATION

The explanatory note of the diploma project consists of four sections, contains 35 tables, 25 figures and 48 sources. The volume of the main part is 66 pages.

The coursework is devoted to the development of a file system with a CppFuse console interface for processing and saving data on operating systems of the Unix family.

Goal: developing a file system and speeding up file processing by customizing its operations.

The requirements analysis section identified the software requirements. The software modeling section presented the architecture of the software product, as well as the software and data structures used in the application.

The main test cases and system states after testing were described in the quality analysis section.

In the implementation and maintenance section, the process of deploying a file system on a personal computer with the Ubuntu Linux LTS 22 operating system was considered.

The results of the work were approved at the 1st All-Ukrainian scientific and technical conference "Technological horizons: research and application of information technologies for the technological progress of Ukraine and the world", scientific and practical conference "Problems of computer engineering" and SoftTech-2023.

conferences.

KEY WORDS: VIRTUAL FILE SYSTEM, UNIX, FUSE, OS KERNEL, FILE, DIRECTORY, SOFT LINK, VISITOR, STATIC POLYMORPHISM.