

## ABSTRACT

Thesis contains: 121 p., 20 fig., 8 tabl., 2 appendixes, 15 sources.

GO, CLUSTERING, RESTFUL, REPORTPORTAL, CLASSIFICATION, REGRESSION TESTING, BUGS, WEBAPPLICATION.

The problem of automatic data analysis in regression testing is investigated in this work. This is a clustering and bug classification in the regression testing.

The review and construction of models and application of algorithms of clustering and classification of text data and unstructured data in the form of bugs, as a result of automatic regression testing scripts, was performed. In the study of the problem of regression testing data analysis, it was found that data can actually be structured and analyzed. We have proved that there are two possible realizations in this task for automatic analysis of the results of regression testing.

In the course of the study using clustering and classification algorithms, the behavior of automatic regression testing logs, as objects with the possibility of structuring, was discovered. Namely, we conducted a preliminary lobbing of data, which makes it possible to analyze and classify data with a predefined accuracy. And so the predetermined clusters were proposed, for analysis, which enables the customer to provide more detailed statistics on the project.

This system was implemented using the programming language GO, and also the RESTful service Elastic Search was used. Examples of applications for work are given. This system makes it possible to process the data received from the test run test service directly.