Laboratory work № 4
Development of a testing plan
(4 years)

Objective: To acquire skills of analysis, development of a testing plan.

Theoretical part

The test plan should include the following sections:

1. Identifier of the test plan
2. Introduction
3. Components to be tested
4. Characteristics and properties to be tested
5. Characteristics and properties that should not be tested
6. Approach
7. Criterion of successful and unsuccessful tests
8. Criteria for termination of tests and requirements for resumption of tests
9. Initial test results
10. Tasks of testing
11. Environmental requirements
12. Distribution of responsibilities
13. Recruitment and staff training
14. Work schedule
15. Risks and unforeseen circumstances
16. Approval of the test plan.

The testing plan describes the capabilities, approach, resources, and schedule performing various types of test activities. It identifies test objects, functions to be tested, test tasks, performers of each test task, and any of the risks that require case planning unforeseen circumstances.

Approach. This section of the test plan is intended for a high-level description of how you intend to conduct the test software product. This description is not a detailed specification of all techniques tests to be used. The approach described in the test plan should be based on the considerations discussed in one of the previous sections, namely in the section "Definitions approach to testing ". This section can include, for example, the following topics:

- Static testing of requirements and design documentation
- Static and dynamic testing, which should be performed in stages testing of program codes, modules and interaction checking and operation of system components
- Property testing
- Overload tests / under tests load / performance testing
- Check of means of protection
- Testing the installation / update of the software product
- Testing of duplication / recovery tools
- GUI testing

Regression testing:

- Acceptance tests: alpha, beta and other types of field tests
- Checking the results of defects
- Interruption of tests conducted in automated and non-automated modes
- Types of testing entrusted to third parties
- Use a defect tracking system to enter fault messages.

Initial test results. This section of the test plan is available the place where the initial data of testing works are determined, for example, the following list can be suggested:

- Test plan
- Documents governing the design of tests
- A document containing a test specification
- Notification of test run results
- Reports of detected defects
- Notes on the release of the software product (if applicable to you in duties).

It is always useful to remind responsible performers of specific ones documents deadlines for registration of the document. To rule out futility spending time at later stages, you can prepare templates, or "goats", these documents at the stage of drawing up a test plan, and then establish links or references to "fictitious" documents. Example, it may be helpful to prepare a report template for test results and fill it with test data as they go readiness. In addition, a test project template can speed up test design work. It's amazing how much time can be wasted arguing about the format and content of any of the above documents.

Define and agree on what you intend to publish on completion of testing at an early stage of the life cycle may occur good practice, because in this case the construction is simplified realistic work plan.

In order not to include in the work plan unjustified overhead costs, it is undesirable to reflect in the plan the results of work that are not essential for achievement the ultimate goal, which in this case is the fastest delivery software product.

Testing tasks. If the test plan used to justify the assessment of labor costs on testing, this section is a suitable place to identify individual tasks that are necessary for the preparation and implementation of testing. Even better if you enter your score in a dynamic spreadsheet. Another way involves the use of a project management program, for example, Microsoft Project, in order to organize links in this section of the plan to another document. This is another relevant point to point to the link on the reference document or at least the path to the corresponding file or network disk drive.

Distribution of responsibilities during testing. In this section the testing plan should indicate who is doing what.

The test plan is an important working product of the development life cycle, so it must be thoroughly tested. If possible, it should undergo a formal inspection. IN

inspections should involve not only members of the testing team, but also representatives of development teams, marketing teams and management (at least via e-mail). Checks are pursued immediately several goals:

• All performers involved in software development, must understand and approve the objectives, coverage, limitations and risks associated with testing.

• The approach to testing should be reviewed to ensure its technical correctness and ensuring that it checks all requirements, performance of which was promised to the customer.

• Test entry and exit criteria must be properly understood all contractors involved in the project. Any dependencies on the activities of other groups must be clearly recorded and the groups responsible for certain stages of development, in due time must provide the group testing appropriate working products.

Although the exchange of information between the test group and other groups should be supported throughout the development process software product, periodic inspections of the plan testing is an excellent opportunity to ensure the coordinated implementation of design work in the early stages of the life cycle. Any misunderstandings and errors in the selection of test coverage, which will go unnoticed when checking the progress of the test plan, can seriously hinder the implementation of tests on time.

The structure of the report on laboratory work 1.

Develop a testing plan, detail the testing procedures that must attest to the functionality of the software product requirements with L.R. №1, attached to the template (sample).

2. The plan should include such elements as an introduction, a list elements being tested, properties that should and should not be tested, the applied approach, criteria of successful and unsuccessful tests, initial test results, test tasks, test configurations, risks and unforeseen circumstances, etc.