« File Searcher » Project

Test Plan

SAMPLE

Project Documentation
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Background	Estimations, schedule, strategy, and metrics are needed to organize the testing process efficiently.
Purpose	To organize the testing process effective and efficient during the whole project period.
Scope	Testing process description, metrics, schedule, resources.
Audience	Management staff, QA team, project team.
File	02 03 - Test Plan Sample.docx

Contents

1. Project scope and main goals

The "File Searcher" application is designed to automatically search for files according to a given template.

2. Requirements to be tested

See referenced sections in “EHU_Software_Testing_requirements_hard.docx”:

2 - smoke test
3 - smoke test
4 - smoke test
5 - critical path test
6 - critical path test
7: 1 - smoke test
   2 - critical path test
8: 1 - critical path test
   2 - critical path test
   3 - extended test
9 - smoke test
10 - smoke test

3. Requirements NOT to be tested

See referenced sections in “EHU_Software_Testing_requirements_hard.docx”:

1 - no implementation required.

4. Test strategy and approach

4.1. General approach

The program is used by the user, the main operation that he can use is file search, as well as additional search options. Therefore, issues of security, etc. not explored during testing.

4.2. Functional testing levels

A. Smoke test: automated with batch files under Windows.
B. Critical path test: executed manually.
C. Extended test: used in in rare cases.

Due to the team cross-functionality, a significant contribution to quality improvement can be expected from the code review combined with manual testing using the white box method.

5. Criteria

D. Speed: the search engine tries to increase user loyalty and satisfaction from using the system. And, as studies show, it is the speed of obtaining a list of files that is crucial in this difficult matter. Search engines are constantly monitoring the time it takes to compile a SERP listing for a particular query. This becomes the basis for further work on changing and refining the main search algorithms.

E. The degree of completeness of the response to the user's request: such a parameter as the completeness of the response to a specific request is also subjected to careful analysis. In order to determine this characteristic, it is analyzed how many files the search engine was able to issue and how many more could be. The amount of information provided is also analyzed.

F. Search engine accuracy: another important parameter that determines the quality of the search. This parameter indicates how accurately the user's request was defined and how accurately it is represented in the context of the checked-out files.

6. Resources

G. Software: three virtual machines (with Windows 10 Ent x64, with Windows 7 and with Windows XP), Delphi 7 licenses (latest version available) and IntelliJ IDEA licenses (latest version available).
H. Hardware: two standard workstations (8GB RAM, i7 3GHz) and two hard drives (HDD and SSD).
I. Personnel:
    - One senior developer with testing experience (100% workload during all project time). Roles: team lead, senior developer.
    - One tester with Java knowledge (100% workload during all project time).Role: tester.
    - One developer with Delphi knowledge (100% workload during all project time). Role: developer
J. Time: one month (160 work hours).
K. Finances: 9000$.

7. Schedule

L. 27.03 – first meeting, discussion of plan, start of developing.
M. 03.04 – second meeting with discussion of developing stages and start first tests.
N. 10.04 – ending of developing and start active test procedure.
O. 17.04 – testing finalization, reporting.

8. Roles and responsibilities

P. Senior developer: participation in requirements testing and code review.
Q. Tester: documentation creation, test-cases execution, participation in code-review.
R. Developer: write code.

9. Risk evaluation

1. Limited temporary resources. In 1 month, developers must plan, implement, test and release the application to the market. If the tasks are set incorrectly or if temporary resources are lost, this can lead to the fact that the project will not be completed on time.
2. Effective project management. Having different roles in a project does not guarantee success if there is not adequate management. A team leader should be able to effectively build a workflow between developers and a tester, as well as be able to monitor the progress of tasks.
3. Technical risks. The developer may face technical problems such as the wrong choice of technologies, the lack of the necessary libraries, the need to implement complex algorithms, etc.
4. The stability of the application. The application should work quickly and without failures. If there are no properly written tests, then there is a chance that the application will be unstable and will not have a good reputation in the market.
5. Limited budget. The $9000 budget for app development is the limiting factor. If there are budget issues, this may result in a lack of funds to improve functionality, implement new features, and maintain the application after launch.

10. Documentation

S. Test Cases and Test Plan documents.
T. Bug reports with reproducible steps to capture issues.
U. Any necessary feedback or screenshots.

11. Metrics

T – Relevance issued files,

P – Relevance didn’t issued files,

Q – Not-relevance issued files,

R - Not-relevance didn’t issued files,

X – Name of chapter

V. Completeness of issuance:

T/T+P = X

W. Lost information:

P/T+P = X

X. Information noise

Q/T+Q = X

Y. Sensitivity

T/T+R

Z. Specificity

R/Q+R

$$\frac{D}{Level}$$