**QUALITY TOOL FOR THE MANAGEMENT OF PROJECTS OF T.I.**

**MANTISBT**

* **Description of the selected tool** (Reyes, 2015)

Testlink is a web-based software testing management system, is open source (Open Source) and has a wide community of forums and volunteers that publish guides and information on how to use it. is a free tool that allows you to create and manage test cases and organize them into test plans. These plans allow team members to execute test cases and record results dynamically, generate reports, maintain traceability with requirements, as well as prioritize and assign tasks.

* **Characteristics** (La oficina de proyectos de informática, 2015)

To organize the software tests, Testlink defines three basic information units that are the Test Project, the Test Plan and the User, the rest of the information are relations between these bases. In the case of Early Testing, this tool includes among its functionalities the possibility of maintaining a repository of requirements that help verify its traceability:

* It allows managing several projects, as well as registering their requirements and relating them to test cases.
* Allows importing requirements and test plans from spreadsheets.
* It allows generating reports in different formats.
* It allows defining requirements and test cases using a friendly interface, as well as attaching files.
* It allows grouping the requirements in a tree structure.
* **Advantages** (Reyes, 2015)
* Assignment of the test cases to a determined tester, which allows to keep track of the progress in the assigned activities.
* You can configure test plans and organize them according to the modules or functionalities that you wish to test.
* In the execution of the test cases it is possible to register the corresponding result and if incidents occur it is possible to indicate the number of the incidence reported in the Mantis tool.
* The test cases can be organized by a module hierarchical structure - use case, and can be used in different iterations, projects, executions.
* The design of the test case is adapted to the format defined in the SGI, which allows configuring an expected result in each of the steps.
* Allows the design of generic test cases to be reused in different projects.
* It allows to have a version management of the test cases designed.
* **Disadvantages** (Reyes, 2015)
* Some Terminologies used in the systems are confusing.
* Lack of offline documentation.
* Heavy interface.
* Requires someone to administer it.
* Requires installation, but a cloud-based version is available.
* It can be quite cumbersome, if you do not know the tool or if you do not have knowledge of technology. It can also be difficult to use filters and reports.
* It can become complicated if you do not have enough data for the study because it may have complicated ways of execution.
* **System requirements** (Morsing, 2015)
* Testlink requires these programs:
* MySQL 4.0.x
* PHP 4.3.x
* Web server (Apache 1.3.x or 2.0.x and higher, IIS 3 and higher, etc.).
* There is no requirement on the operating system.
* **Justification of Tool Selection.**

The testlink tool was selected because it is a quality tool for the management of open source projects and will not implement a cost in the development of the project, some of the characteristics for which it was selected is that it can not only be implemented in different tests, but you can also develop other aspects, one of the most striking is to record their requirements and relate them to the test cases, apart from that testlink is has a very friendly graphical interface.

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