**Software Testing**

**(Module – 3) Defect Tracking**

**Assignment – 3**

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* **What is Priority?**

Priority is relative and business focused. Priority defines the order in which we should resolve a defect. Should we fix it now, or we can fix it later? This priority status is set by the tester to the developer mentioning the time frame to fix the defect.

If high priority is mentioned then the developer has to fix it at the earliest. The priority status is set based on the customer requirements.

Ex: - If the company name is misspelled in the home page of the website, then the priority is high and severity is low to fix it.

Types of the Priority: -

1. Low: - The defects that have the least priority for getting fixed are fixed after all the high and medium-priority defects are fixed. The defect is which should be repaired, but repair can be deferred until after more serious defect has been fixed.
2. Medium: - The defect which doesn’t affect the working of the system set to Medium Priority.They are less urgent than high-priority defects and can be solved simultaneously with the testing as well as the development phase. It can wait until a

New build or version is created.

1. High: - The defect must be resolved as soon as possible because the defect is affecting the application or the product severely. The system cannot be used until the repair has been done.
2. Critical: - Extremely urgent, resolve immediately defects marked as Critical.

* **What is Severity?**

It is the extent to which the defect can affect the software. In other words it defines how impactful can a defect be to the system.

Ex: - : If an application or web page crashes when a remote link is clicked, in this case clicking the remote link by an user is rare but the impact of application crashing is severe. So the severity is high but priority is low.

Types of the Severity:

1. Critical: - The defect that results in the termination of the complete system where user cannot proceed anything. The failed function is unusable and there is no acceptable alternative method present to achieve the required results then the severity will be stated as critical.
2. Major (High): - The defect that results in the termination of the complete system or one or more component of the system. The failed function is unusable but there is an acceptable alternative method to achieve the required results then the severity will be stated as Major.
3. Moderate (Medium): - The defect that does not result in the termination of system, but causes the system to produce incorrect, incomplete results then the severity will be stated as Moderate.
4. Minor (Low): - The defect that does not result in the termination of system and does not damage the usability of the system. The desired results can be easily obtained by working around the defects then the severity is stated as Minor.
5. Cosmetic: - The defect that is related to the enhancement of the system where the changes are related to the look and field of the application then the severity is stated as cosmetic.

* **What are the Bug Categories?**

Bug (Defect) is the variance between the expected result and actual result called the Bug.

It can be a wrong, missing, or extra data in system attribute.

Types of the Bugs:

1. Database defect/ Data quality: - It Deals with improper handling of data in the database.

Ex: 1) values cannot be properly deleted, inserted into the database. 2) Improper, null, wrong values can be inserted in place of the actual values.

1. Critical Functionality Defect: - The occurrence of these bugs affects the crucial functionality of the system called the critical functionality defect. Example: Exception.
2. Functionalty defect: - This type of defect affects the functionality of the system.

Example: 1) All JavaScript errors.

2) Buttons like save, delete, cancel not performing their intended functions.

3) A missing functionality or a feature not functioning the way it has to behave.

4) Continuous execution of the loops.

4. Security Defects: - Security defects generally involve improper handling of data sent from the user to the application. These defects are the most severe and given highest priority for a fix.

Example: 1) Authentication: Accepting an invalid username and password. 2) Authorization: get access of the data or page which is not given permission for.

5. User Interface Defects: - This is the defects which deal with the user interface area. Usually this are considered as a less severe.

Example: 1) Improper Error, warning.

2) Spelling mistakes. 3) Alignment Problems.

* **Advantages of Bugzilla.**

Bugzilla is a defect tracking tool, however it can be used as a test management tool.

Bugzilla is an open-source issue/bug tracking system that allows developers effectively to keep track of outstanding problems with their product.

Advantages are as mentioned below:

* It is easy in usage and its user interface is understandable for people without technical knowledge.
* It reports in a variety of formats and types.
* It can track the time that is taken to fix the bug.
* Bugzilla comes with both basic and advanced searching mechanisms. Using these you can search the details of bugs as you wish.
* It can report in multiple type and formats like charts, graph or HTML, CSV, XML.
* Bugzilla have duplicate bug detection feature as it automatically tracks the bugs similar to the one you are searching for.
* **What are the difference between Priority and Severity?**

The difference between the Priority and severity are as below:

* Priority is a parameter to decide the order in which defects should be fixed. While Severity is a parameter to denote the impact of a particular defect on the software.
* Priority means how fast the defect has to be fixed. While Severity means how severe the defect is affecting the functionality.
* Priority is related to scheduling to resolve the problem. While Severity is related to the quality standard.
* Priority is divided into category as Low, Medium, and High. While Severity is divided into category as Critical, Major, Minor, Low.
* Priority of defects is decided in discussion with the developer/client. While the test engineer determines the severity level of the defect.
* Priority is driven by Business Value. While Severity is driven by Functionality.