**Module -4(Defect Tracking)**

1. What is priority?

. Priority defines the order in which we should resolve a defect. Should we fix it now, or can it wait? 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.

**Priority can be of following types**:

• Low: The defect is an irritant which should be repaired, but repair can be deferred until after more serious defect has been fixed.

• Medium: The defect should be resolved in the normal course of development activities. It can wait until a new build or version is created.

• 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.

• Critical: Extremely urgent, resolve immediately

1. What is severity?

Severity is absolute and Customer-Focused.It is the extent to which the defect can affect

the software. In other words, it defines the impact that a given defect has on the system.

For example: If an application or web page crashes when a remote link is clicked, in

this case clicking the remote link by a user is rare but the impact of application

crashing is severe. So, the severity is high but priority is low.

Severity can be of following types:

**Critical:** The defect that results in the termination of the complete system or one or

more component of the system and causes extensive corruption of the data. The

failed function is unusable and there is no acceptable alternative method to achieve

the required results then the severity will be stated as critical.

**Major (High):** The defect that results in the termination of the complete system or

one or more component of the system and causes extensive corruption of the data.

            The failed function is unusable but there exists an acceptable alternative method to

achieve the required results then the severity will be stated as major.

**Moderate (Medium):** The defect that does not result in the termination, but causes

the system to produce incorrect, incomplete or inconsistent results then the severity

will be stated as moderate.

**Minor (Low):** The defect that does not result in the termination and does not damage the usability of the system and the desired results can be easily obtained by working around the defects then the severity is stated as minor.

**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.

1. Bug categories are…

**Data Quality/Database Defects:** Deals with improper handling of data in the database.

∙ Examples:

∙ Values not deleted/inserted into the database properly

∙ Improper/wrong/null values inserted in place of the actual values

∙ **Critical Functionality Defects:** The occurrence of these bugs hampers the crucial

functionality of the application. Examples: - Exceptions

∙ **Functionality Defects:** These defects affect the functionality of the application.

∙ Examples:

∙ All JavaScript errors

∙ Buttons like Save, Delete, Cancel not performing their intended functions

∙ A missing functionality (or) a feature not functioning the way it is intended to

∙ Continuous execution of loops

∙ **Security Defects:** Application 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.

∙ Examples:

∙ Authentication: Accepting an invalid username/password

∙ Authorization: Accessibility to pages though permission not given

      ∙ **User Interface Defects:** As the name suggests, the bugs deal with problems related

         to UI are usually considered less severe.

∙ Examples:

∙ Improper error/warning/UI messages

∙ Spelling mistakes

∙ Alignment problems

1. Advantage of Bugzilla

∙ Advantages of Bugzilla includes:

− Advanced search capabilities

− E-mail Notifications

− Modify/file Bugs by e-mail

− Time tracking

− Strong security

− Customization

− Localization

1. Difference between priority and severity..

• Priority is the order in which the developer should resolve a defect whereas Severity is the degree of impact that a defect has on the operation of the product.

• Priority is categorized into three types: low, medium and high whereas Severity is categorized into five types: critical. major, moderate, minor and cosmetic.

• Priority is associated with scheduling while Severity is associated with functionality or standards.

• Priority indicates how soon the bug should be fixed whereas Severity indicates the seriousness of the defect on the product functionality.

• Priority of defects is decided in consultation with the manager/client while Severity levels of the defects are determined by the QA engineer.

• Priority is driven by business value while Severity is driven by functionality.

• Priority value is subjective and can change over a period of time depending on the change in the project situation whereas Severity value is objective and less likely to change.

• High Priority and low severity status indicate, defect have to be fixed on immediate bases but does not

* affect the application while High Severity and low priority status indicates defect have to be fixed but not on immediate bases.
* Priority status is based on customer requirements whereas Severity status is based on the technical aspect of the product.