ASSIGNMENT

Module 4 Defect Tracking

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Basic

B1. What is priority?

Priority defines the order in which we shouldresolve a defect. 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.
• For example: 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.

B2. What is severity?

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

B3. What is Bug zila?

Bugzilla is an open-source issue/bug tracking system that allows developers effectively to keep track of outstanding problems with their product. It is written in Perl and uses MYSQL database.

Intermediate

I1. Bug categories are...

Bug Category: Security, Database, Functionality (Critical/General), UI

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
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
 Authorization: Accessibility to pages though permission not given

I2. What are the procedure for Defect Management Process

 New: The Bug is newly found out and entered in the Bug tracking or Bug Reporting tool.

 Open: The Development or Test Lead reviews the defect. If it is determined to be a true defect, he or she adjusts the severity and priority and changes the status to open. A status of Open indicates that the defect is a true defect but that it has not yet been assigned to a developer for correction.

 Assigned: The bug is assigned to the Developer.

 Tested: The bug is tested by the Software tester.

 Verified: The bug is verified by the QA Lead.

 Closed: The tester verifies that the defect has been resolved and changes the status to Closed. A status of Closed indicates that the defect has been fixed and re-tested to the satisfaction of the person who first logged the defect.

 Rejected: If the Test Lead finds that the system is working according to the specifications or the defect is invalid as per the explanation from the development team, he/she rejects the defect and marks its status as ‘Rejected’.

A status of Rejected indicates that the defect is invalid, and therefore closed. No further work will be done on it.

 Deferred: In some cases the client may determine that a particular defect stands less important and can be deferred to a later stage. In that case it may be marked with 'Deferred', with a comment indicating when it should be reviewed again. A status of Deferred indicates that no further work will be done on the defect until that later date.

 Reopened: If after retesting the defect, the problem is not solved, the tester reopens changes the status to 'Reopened'. A status of re-opened indicates that the developer failed to satisfactorily fix the defect and that it needs to be re-assigned to a developer for fixing.

I3. Advantage of Bugzila

- It is an open source widely used bug tracker
- It is easy in usage and its user interface is understandable for people without technical knowledge
- It easily integrates with test management instruments
- It integrates with an emailing system
- It automates documentation

Advanced

A1. Difference between priority and severity?

Severity	Priority
Severity is associated with functionality	Priority is associated with scheduling
It indicate the seriousness of defect	It indicate how soon the bug should be fixed
QA engineer determine the severity level	Priority of defect is consultation with the client
Severity is driven by functionality	Priority is driven by business level
Severity levels are: Critical, major, minor, moderate & Cosmetic	Priority levels are: Critical, high, medium, low

A2.How to install Bugzilla?

- In outline, the installation proceeds as follows:
- Install Perl (5.6. …
- Install MySQL (3.23. …
- Install a Webserver.
- Install Bugzilla.
- Install Perl modules.
- Install a Mail Transfer Agent (Send mail 8.7 or above, or an MTA that is Send mail-compatible with at least this version)
- Configure all of the above.

A3.How to add bug in Bugzilla?

Bugzilla is an open-source issue and bug tracking system. It allows developers to keep track of outstanding problems with their product efficiently.

Although it is a Defect tracking tool, it can use as a test management tool which linked to other Test Case management tools like Quality Center, Test link, etc. Furthermore, the device is always written in Perl and uses MYSQL database.

Step 1: Visit the home-page of Bugzilla and click on NEW tab from the main menu

Step 2: In the next window complete all the details in the product, component, description. Then select version, severity, hardware, and OS. And finally, enter summary, description, and attach the attachment.

Step 3: After filling all the boxes, click Submit to send your file.

Step 4: When the bug appears, you can add additional information to the assigned bug like URL, keywords, whiteboard, tags, etc. The information is helpful to the detail of the Bug you have created.

Step 5: Deadline in Bugzilla usually gives the time-limit to resolve the bug in given time frame. In the same window if you scroll down further. You can select the deadline date and also a status of the bug.

A4. How to make a procedure for Bugzilla?

Bugzilla is powerful and it has advanced searching capabilities.

- Bugzilla supports user configurable email notifications whenever the bug status changes.
- Bugzilla displays the complete bug change history.
- Bugzilla provides inter bug dependency track and graphic representation.
- Bugzilla allows users to attach Bug supportive files and manage it.
- Bugzilla has integrated, product-based, granular security schema that makes it more secure.
- It has complete security audit and runs under the Perl's taint mode.
- Bugzilla supports a robust, stable RDBMS (Rational Data Base Management System) back end.
- It supports Web, XML, E-Mail and console interfaces.
- Bugzilla has a wide range of customized, user preferences features.
- It supports localized web user interface.
- Extensive configurability as it allows to be configured with other test management tools for a better user experience.
- Bugzilla has a smooth upgrade pathway among different versions.

A5. How to generate a report of Bugzila?

A report helps to analyse the current state of the bug. The purpose of a Defect Report is to see the behaviour, communication, analysis and the current stage of a defect at any stage of the defect lifecycle. Defect reports are even useful after closing the defect and analysis the product and development quality.

Following are some of the important points to consider regarding the various Bugzilla reports.

- Bugzilla supports those Tabular Reports that have HTML or CSV reports.

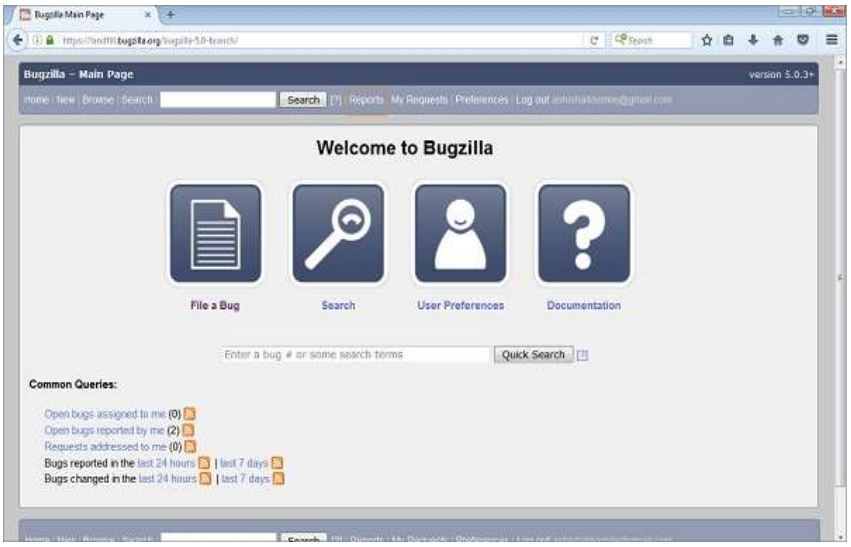
- Tabular reports can be viewed in 1-Dimensional, 2-Dimensional or 3-Dimensional ways.

- The most common type of report supported by Bugzilla are the Graphical Reports.
- Graphical Reports contain line graph, bar and pie charts.
- Report functionality is based on Search and filter concept, for which the conditions are given by users.
- The user provides his preference of vertical and horizontal axis to plot graphs, charts or tables along with filter criteria's like Project, Component, Defect Status, etc.
- The user can even choose 3-D reports for tables and images.

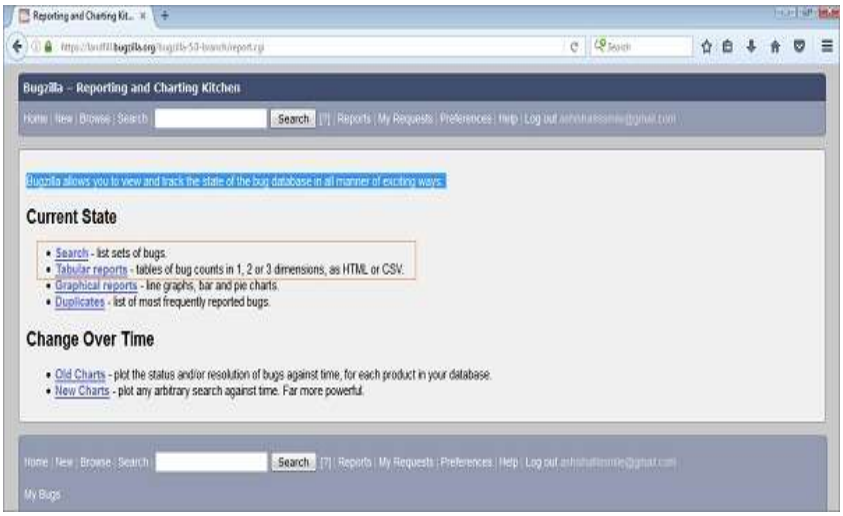
Navigating the Reports Section

For navigating the reports section in Bugzilla, we should follow the steps given below.

Step 1 − Click on the Reports link in the header of the homepage.



Step 2 − Bugzilla displays the Reporting and Charting Kitchen page. It has two sections to generate different type of reports – Tabular Reports and Graphical Reports.



The links like −

- **Search** − It will navigate the user to the standard search page.
- **Duplicate** − It will display the most frequently reported bugs

A6. How to solved the bug in Bugzilla?

- Go to Landfill in your browser and click Enter a new bug report.
- Select a product – anyone will do.
- Fill in the fields.
- Bugzilla should have made reasonable guesses, based upon your browser, for the “Platform” and “OS” drop-down boxes. …
- Select “Commit” and send in your bug report.