A REVIEW ON BUG TRACKING SYSTEM

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Abstract - *Bugs are the key challenge for a software organization. Software organization spent more than 48 % of their resources engaging in these bugs. Manually managing these bugs is difficult. Then an automatic access to sample selection and selection method is combined to handle the errors, so the bugs are distributed to error-solving experts. An inevitable step in fixing bugs is to assign a bug fix expert. The problem is that the majority of errors are assigned to experts who have less experience in the area that can fix the errors. Thus by using the term selection method, a bug fix expert is automatically predicted, depending on the type of bugs. A history of these clearing errors is maintained using a historical data management system. This automatically fixes an error that is reported and resolved in the past. This reduces a lot of time and costs involved in troubleshooting.*

***Key Words*:** Bug tracking system, Bug tracker, Resolution of bugs, Report generation.

1. INTRODUCTION

The main goal of Bug Tracking System project is to deal with online support for software engineers who are confronted with the errors or failures of software technologies. This project can track project details, developer details and test details. Bug Tracking System is the system with which the bugs can be detected. It does not find the errors, but offers the complete information about bugs found. Bug Tracking System provides the user of the person who wants to know about providing information to the identified errors. Engineers develop the project according to the customer's requirements. The tester identifies the errors in the test phase. When the tester has passed the number of errors, he adds the error identification and information in the database. The tester informs the project manager and developer. The error information in the database table is available to the project manager and developer. When customer sends request to develop the product. The system or Project Manager is responsible for adding users to the Bug Tracking System and awarding projects to the users. This project contains error information with error ID, error name, error priority, project name, error location, error type. All these processes are executed all the time until all errors in this system have been resolved. This system can also help with the error report, which is sent to System / Project Manager and is developed as long as the error is detected. It makes it easy for anyone who really needs to know about the bug can learn from it soon after it has been reported.

Bug Tracking System plays a main role in the test phase. But it supports awarding projects to the developer, the tester. This Bug Tracking system keeps track of the different users and offers separate environments to project manager, develops tests.

2. Bug Tracking System

Bug Tracking System is a web-based program designed to support quality assurance and programmers to track reported software errors in their work. Bug is assigned to a person with an bug ID, flag, description, project name. A Bug can be shown to the tester with an accessory towards the bug report. Administrators can maintain users, projects, organizations, bug categories, bug preferences, bug status etc.

There are some facts related to this system:

i. Facts may include the time at which an error was reported, the seriousness, the wrong program behaviour and Details on how to reproduce the error as well identity of the person who reported it and someone programmers who might work to fix it.

ii. An error tracking system should allow administrators configure permissions based on status, passage the bug to another status or delete the error.

iii. The biggest advantage of a bug tracking system is that give a clear centralized overview of the development requests and their states.

iv. The priority list of outstanding items (often called a backlog) provides valuable input for the definition of the product road map, or perhaps just "the next release".

v. In a business environment, a bug tracking system may exist used to generate productivity reports programmers to correct bugs.

vi. Local Background Tracking (LBT) is a software program used by most software developers in the application support team (often the help desk) to control problems that are transmitted. LeBinin does not have the "language of the developer" in their "language" but the "language".

3. Purpose of Bug Tracking System

The set of scripts that endorses the database of the "Process Tracking System" or the Tracking Issues report. Bug tracking software allows individuals or groups of developers to effectively track outstanding errors in the product. Bug tracking software can track errors and changes, communicate with members, send and review patches and manage quality management.

This web-based business application is a great tool for assigning and tracking problems and tasks during software development and other projects involving teams of two or more people.

4. Architectural Design of Bug Tracking System

Architectural Design a huge complex process of introducing small subsystem. These subsystems are meant to provide some related services.
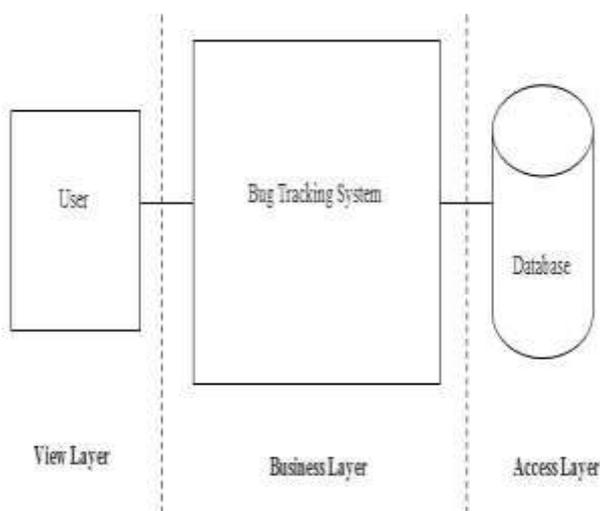

Fig .1 Architectural Design of Bug tracking System

5. FUNCTIONAL REQUIREMENTS

Functional requirement are those requirement which specifies working of each module in the bug tracking system to resolve the error or bug occurring in users project or report send by them . These main module are working in co-ordination with each other and produce a report in the sense to resolve the problem.

These main modules are as follows:

A. Admin

This module has full access to all the other modules, the administrator creates the project and assigns projects to the Managed Manager, connects the managers to the members, assigns the bug based on priority.

B. Manager

The manager has full access to the special project entrusted by the administrator and controls the access to the team's fixed bugs

C. Developer

Developers: can access the tasks or bugs assigned by the manager, view the assigned projects, and resolve the assigned bug. The developer can see the bug list specified by the manager.

D. Tester

The examiner can access the projects or bugs assigned by the manager, see the assigned projects, and add a new bug in the list and send the bug back to the manager. The examiner can enter the system and can access the assigned project list.

E. Reports

Both Admin and Manager can access   module and generate the reports based on the requirements.

6. Relationship between Modules

The relation between the modules and the work usage diagram may be as follows. This usage indicates the connection between the module by logging into the status diagram system and accessing it.
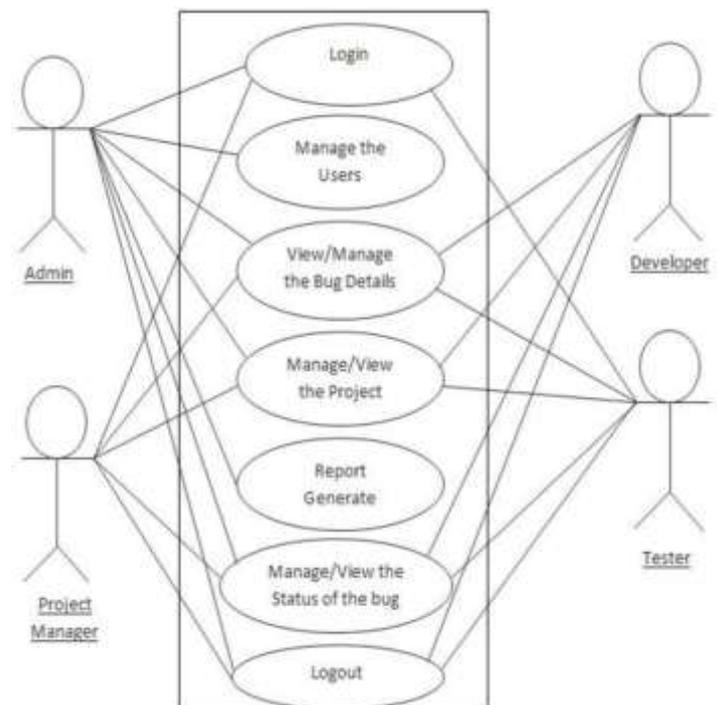

Fig.2 Use Case Diagram

7. How to improve the quality assurance

Having complete information in the original bug report (or as promptly) helps developers solve the problem quickly bug. The focus of our work is to improve the tracking of errors systems aimed at increasing the completeness of the errors reports. In particular, the improvement of bug tracking systems is done in four ways.

A. Tools Centric

This means that QAS can be configured to implicitly collect and add the stack Report with error information. It can improve gathering information functions. It can use steps to Use capture/replay tools that can be detected by software engineers later.

B. Information Centric

This is another direction from us helping software developers to have more focus the collection of information to be left in error reports. Such tools verify the information provided in a bug reports and gives feedback that helps to improve it quality of information.

C. Process Centric

Process-oriented function helps developers to make an estimate of the time they have to spend on certain bugs and set their time accordingly.

D. User Centric

User-centric feature contains both developers and bug reports. This focuses on the education of journalists so they can gather good information and how to collect it too. The expected information the error report ensures that developers understand and act faster quick fixes in real-time applications.

8. INPUT OF BUG TRACKING SYSTEM

Input data is part of the overall system design, which requires very careful attention. If the data entering the system is incorrect, processing and output will increase these errors. The input can be categorized internally, externally, operative, computerized and interactive. In the analysis phase, the effects of the inputs on the entire system and on the other systems should be examined. In this article, inputs are designed to minimize the occurrence of errors, only the authorized user or administrator has access to this device. The records are checked by the managers in the form of the value. Then there is no chance of unauthorized access to the device. Any deviations found in the inputs are checked and handled. Input design features can ensure the reliability of the system and lead to accurate data or cause false information to be generated.

9. OUTPUT OF BUG TRACKING SYSTEM

Computer output is the most important and direct source of information for users. The design of the output should be arranged in a well-thought-out manner. Proper production needs to be developed, while ensuring that all the output elements are designed so that people can easily find the system. When planning to output, it identifies the individual output needed to meet the information requirements. The system's success and failure depends on performance, although the system looks attractive and user-friendly, it decides on the use of the production system. Outputs generated by the system are checked for stability and the output is simple, so users can easily handle them. For many end-users, the main reason for the development of the output system is that the utility of the application is evaluated.

10. CONCLUSIONS

Bug monitoring is an automated system for improving software reliability (BTS), which can be useful for employees and managers in any functional organization. This project protects bug reporting levels from all sources of delay. The project module in the software industry is in the form of a request Published on the corporate server is safer. It helps in detecting and managing errors Software products.

This BTS project can be used to track the bug in Project module helps in troubleshooting test and development errors Procedures.

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