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Bug Tracking Application Real Time Bug Reporting and Tracking

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Abstract: ***Bug tracking applications are majorly regular bugs which uses tools to tracks the bug from user through software development lifecycle to maintain the reliability and consistency. And just then the software system has any oversized user base, that is common in practice and different users may experience the same bug generation that may lead to many duplicacy in the bug report. The presence of redundant bug report hence finally ends up with many unnecessary attempts of designer lay out on detecting the same defects. To accelerate bug fixing task and store the price of inventor there is a huge demand for automated detection of redundant bug records. In that time, the proposed system explores the employment robust deep study technique as well as word embedding and convolution neural network to compute similitude between a set of bug reports and hence identify feasible redundancy. In contrast to the earlier process that is consider only common letters in the bug depiction for lexical similitude calculation. Here the main approach in an edge to push capture semantic logical similitude between the words. In that cases we are not improve conventional CNN models through merging few domain specific functions pull out from the bug records. Experimental results of the bug report show that CNN has made a significant advancement into duplicate detection accuracy above the conventional approach.***

Keywords: Web based application, Errors, Duplicates, Tools, Bug priorities, functionalities of modules.

I. INTRODUCTION

Advanced software systems are not only growing rapid in complications and volume, rather it keeps updating frequently under the agile methodology. This is a excellent case that software has several tens of tools or components grown by different developers. It is accordingly hectic to ensure all releases of smart software is bug free. However, the use of bug tracking application system aids a lot in entire process by bug reporting to bug fixing. There are again some complexities to be addressed with regard to duplicate bug identification. Bug tracking system aids bug report collection but it is now providing no support for automated test report. Therefore, the tester requires manual inspection if a bug report is redundant or not. So, this process is not only time taking, error prone but also intensify cost of software maintenance. Besides, immense number of bug reports makes it impractical for the tester to physically carry out many different redundant bug records.

In order to attain this challenge few advanced studies are devoted to automate the identification which includes two different methods, the first method is employing conventional Natural Language Process (NLP) and Information Retrieval Technique that assist with redundancy discovery so in such a way, when a new bug report is arrived that is need to be select access to search in bug tracking system. Hence this approach can reduce the effort of tester partially, the accuracy of redundancy detection will be far from satisfaction. The two methods of different approaches are not fully taken into a statement of logical information of bug tracking report illustration.

II. LITERATURE SURVEY

Advanced bug tracking tool, user does not productively elicit most of the information required by the developers. Without this information the one is resolve bugs from existing software application. So, to implement it we design the advanced technique which could implement online task. From that user can easily resolve bugs in an efficient way. It depends upon the amount of data is present to execute bug tracking system. If the data is less, then bugs can be detecting rapidly as compare to more volume of information. It depends upon the variations of the program scripts. To make the implementation of bugs more securely and execute rapidly, we working on bug tracking application in four different methods like tool centric, process centric, user centric and information centric. In tool centric that assist to decrease the risk of information collection and supply. In process centric which targets on administration of activities related to bug detection. In user centric that comprises testers and developers to provide information by the user to be used to sort out bugs.

In information centric that straightly targets upon information providing by manager or tester. So, to omit the duplications of bugs Mr. N Jalbert and W. Weimer launched a software called automatic deletes duplicate bug report and saves the time. Some of bug tracking tools viz Bugzilla, Mantis, Trac etc. are the open source bug tracking tools but those bug tracking tools are not using this technology therefore, proposed technique provides the extra features for the user to increase the software quality. Here we support and enhance all types of data or information. Comments, graphs, customized themes, workflow diagrams, email notification export and failure files, File histories, severity status and versions are the different features considered for analysis of the tools. This tool can help through its software life cycle to create initial report to execute ultimate resolutions.

III. PROBLEM STATEMENTS

When the issue is being reported, it would imply many different tasks like bug finding, operation, testing and debugging throughout the whole process. It is rather difficult to administrate problems in a project to track each files or records because many bugs are frequently found. Pointing to some developer create the bugs and quality assurance team is going to inspect the code and application to get exact order or combinations of steps that turns up an error.

System quality assurance team and system developers are requiring easier communication. Researcher stated that trying to stay these bugs in one's head or during a single file like spreadsheet immediate disaster because one need to be able to communicate effectively with one another or with the event team and will not be ready to contribute to extend product quality. As a project increases the very first problem that is likely to be encountered is that simply one person can change the spreadsheet at any time. According to this communication is critical factor for the success of a software project. Regardless of that how technical modules, team members are if the communication does not happen efficiently then the entire team go under risk.

IV. PROPOSED SYSTEM

The proposed system of bug tracking system is to track the application for bugs or defects and reports to the project manager and developer, the prime intension behind the bug tracking system is that to trace bugs and report them. Keeps the bug data or information with id inside the database for future analysis. The bug projects titles "Bug Tracking Application" could even be an online bug removing system with the help of target setup a user friendly online bug tracking system. This is frequently used for bug tracking application and for project management, during this way the project manager or admin can have complete details of the progress assigned to each of the team member. And mainly while replacement work enters then admin or project manager assigns the work to testing teams by having the view at programmer to minimize their burden. The proposed software aids to track the process or progress of the work assigned to the testing team member by their project manager or admin and this software helps the manger or admin, team members and quality assurance are the best officials of a software organization to know how the task is implementing. over that is when particular type updates the product has done by who the work is assigned to different teams within the view of bugs.

V. IMPLEMENTATION OF BUG APPLICATION

Whenever a software engineer presents a bug records, probably they are going to ask many different questions, some of the questions would be what would be the name of product? What kind of bug? In which class bug is present? Or in which module bug is existing? Which platform is used?

Or which Operating system is used? And many more. The information provided by developer may be some time inaccurate or may be incomplete information. Once the bug report submitted by the developer, then corresponding follow up questionnaire to be asking and in addition to that saving the submitted report will be in hand. So, we approve that software development teams should have bug tracking tool which consists "build expert application". This system or tool raises all required questionnaires to software developer therefore, all the work will be automated. The questionnaire to be sent and response by developer will not be same. The questions will not be in sequential order i.e. there will be a randomized question. Predominantly answers to the questions regulate next feasible questions. The proposed system consisting of different modules which are explained through use case model, which is depicted in below diagram:

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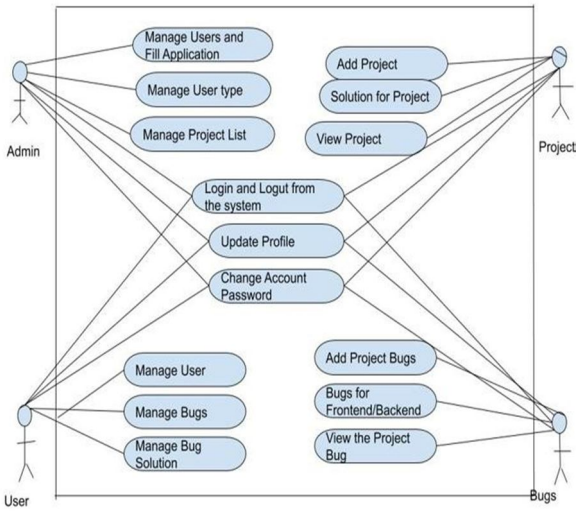

Fig -1: Use case diagram of bug tracking application

The use case diagram will helpful to understand the number user modules. Here we are having 4 modules there are admin, project, user, bugs. The admin will manage all the user and project list and admin can able to add the all the project and he can able to manage all the projects. The tester and developer can able to view the bugs.

The below details are essential for depict expert systems:

- The bug location details are very significant to tracking bugs and location provides the information like line number, methods, class name and other information too. This will help developer to move to the proper location easily. So, now many software environment tools are already having short cut methods like a single button click.
- The bug list also helps machine learning model can be put up that pick the question and predict the location of the bugs based upon the response according to the bug. So, this paper gives a confirmation of study which makes use of information which is present in the bug records. Hence, we can get plenty of information that is relevant in implementing a tool that can possibly help automatic evaluation of data.

VI. MODULES

1) Administrator

Admin is a person who have all rights to add the employee, remove the employee, view the employee working history and add or remove the project and also who takes care of all registration status, acceptance of current bugs and other tasks, so that they will reduce the burden of other employees.

2) Developer

Developer are the employees who is responsible for developing the software as well as rectify the bugs or errors in the software. The developer will get the bug report from one of the testing team. Developer rectify the errors and save into database.

3) Manager

Manager has rights to hire the employees for the suitable project and monitors the progress and process done by the employees. And also checks the project completions. Manager has also maintained the history of each bug, supports different unique software and many more.
Determines the priority of the bug and arranges sprint etc.

4) Tester

Tester are the person who can retrieve the project assigned by the project manager and can view the bugs and raise the bugs. The main job of tester is to find the bugs and which will provide class name, methods, locations, software environment and other information. The new bug report generation will revert back to the project manager through project manager it will be send it to developer teams.

VII. EXPERIMENTAL RESULTS OR OUTCOME OF BUG APPLICATION

The outcome of this software is most essential and direct [1] source of information to the users. Designing the outcome should begin by the organization in an well manner. The proper outcome must be executing when ensuring that every outcome segment is designed so that user will find leniency to use the software application. Whenever analyst design the outcome then they will recognize particular result that is very much required to meet the information requirements. The success and failure of the software products are depending on the outcome or result of the software product though the system looks clean and user friendly the result produces based on the usage of the system. The result generated by the system are calculated for its consistency, accuracy and result is provided are simple which user can handle them in simpler way. For most of the consumers, results or outcome are the main basis to develop the software and it is the main source to come up with decisions whether usefulness of the application. The following table depicts how outcome will be generate as follows:

Table -1: Bug Status

Bug Status and descriptions	
Open	Developer opens it to solve the bug.
Resolve	One of the development team or developer solve the issues.
Halt	Issues will pause due to some reason.
Progress	Developer under process
Close	Developer closes the system once it is done successfully.

VIII. CONCLUSION

This Bug following associated reportage System helps a software package Concern to find and manage the bug in their product effectively and efficiently. Utilizing bug following software package will assist in troubleshooting errors for testing and for development processes. With the flexibility to produce comprehensive reports, documentation, looking out capabilities, following bugs and problems, bug following software package may be a great tool for those software package development wants. counting on your development wants and also the bug following software package, you'll hope to realize many edges from bug following software package.

This System is mainly used to identify the bugs accurately and it is easy to use it improve communications between teams of individuals and it is increasing the standard of the software package.

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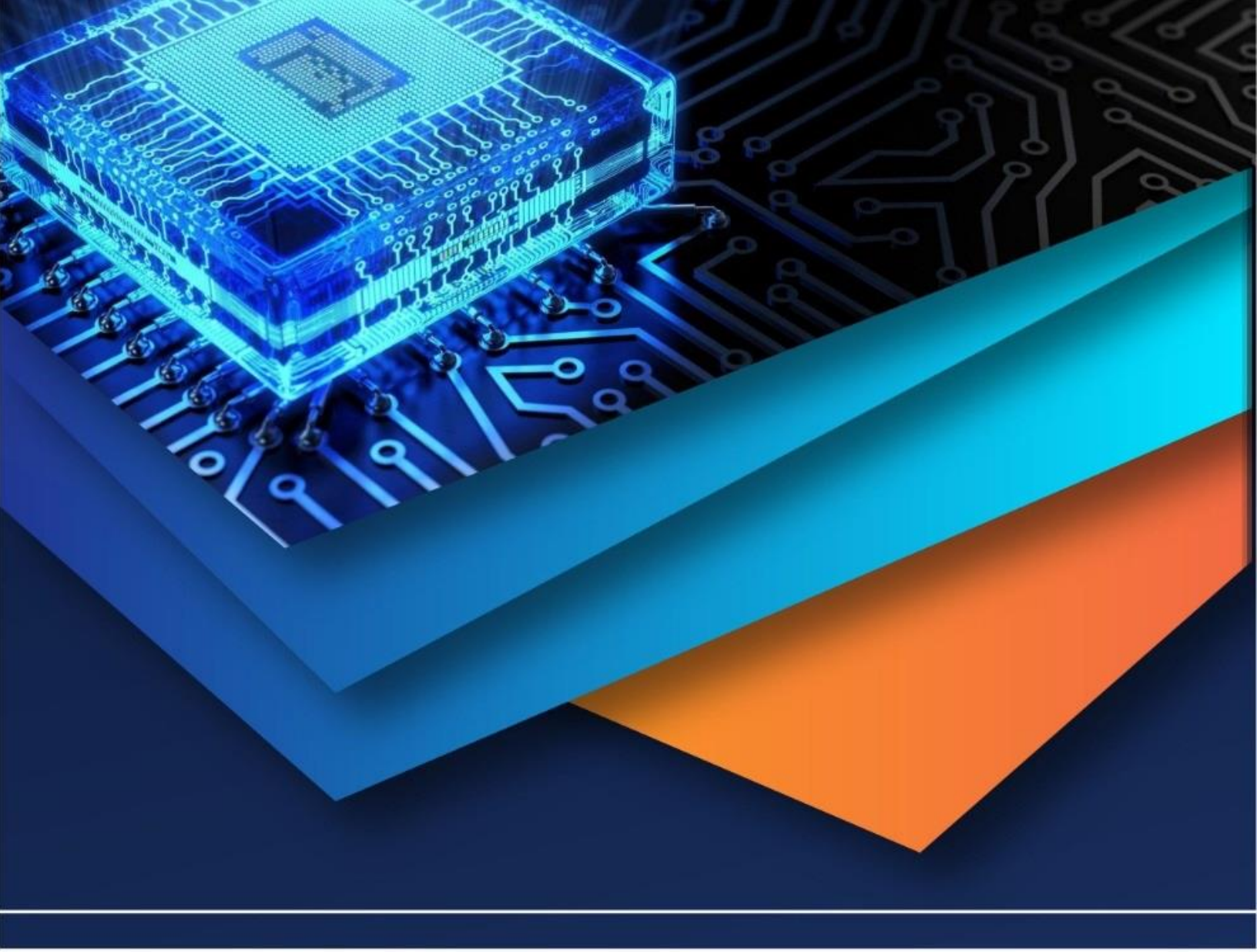

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