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BUG TRACKING AND REPORTING SYSTEM USING WEB – BASED BUSINESS APPLICATION

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ABSTRACT
The ever-growing field Information Technology has its many advanced notable features which made it what it was now today. In this world, the information has to be processed, clearly distributed and must be efficiently reachable to the end users intended for that. Otherwise we know it lead to disastrous situations.   The other coin of the same phase is   it is absolutely necessary to know any bugs that are hither-to face by the end users. The paper "Bug Tracking and Reporting System using Web – Based Business Application" aims to provide the solution for that. The Bug Tracker can be made from any two types. The first one being the system side, the other being the services side. Our paper deals with the second one.

The paper is wholly dedicated to tracking the bugs that are hither-by arise. The administrator maintains the master details regarding to the bugs id , bugs type, bugs description, bugs severity, bugs status, user details. The administrator too has the authority to update the master details of severity level , status level, etc, modules of the paper. The administrator adds the users and assigns them responsibility of completing the paper. Finally on analysing the paper assigned to the particular user, the administrator can track the bugs, and it is automatically added to the tables containing the bugs , by order of severity and status.

The administrator can know the information in tact the various papers assigned to various users, their bug tracking status, their description etc in the form of reports from time to time. The paper wholly uses the secure way of tracking the system by implementing and incorporating the Server side scripting. The administrator can now add the paper modules, paper descriptions etc. He too adds the severity level, its status etc.

KEYWORDS: Admin, Server, Defect, Web Based

INTRODUCTION
The motivation behind the paper is to provide a complete defect tracking tool for various bugs that can occur in the paper maintenance. This paper is fully dedicated to be implemented in a software development company where the administrator adds the paper managers, and gives them the roles, and assign paper. Each paper consists of number of modules and there is a great necessity to detect those bugs. In such software development companies when there the paper sizes grow enlarger, there is a tedious system of maintaining the paper bugs and their relevant information. This has motivated to the development of "Bug Tracking and Reporting System using Web – Based Business Application"

Bug tracking software is a "Error or Defect Tracking System" or a set of scripts which maintain a database of problem reports. Bug tracking software allows individuals or groups of developers to keep track of outstanding bugs in the product effectively. Bug tracking software can track bugs and changes, communicate with members, submit and review patches, and manage quality assurance.

This web-based business application is a great tool for assigning and tracking issues and tasks during software development and any other papers that involve teams of two or more people. The motivation behind the paper is to provide a complete defect tracking tool for various bugs that can occur in the paper maintenance. This paper is fully dedicated to be implemented in a software development company where the administrator adds the paper managers,

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EXISTING SYSTEM
The existing system is a system which suffers from a lot of disadvantages:
Limitations of the Existing System
1. Has to maintain the whole system of software development manually
2. Has to maintain the details of the paper managers manually.
3. Has to maintain the details of the status of different papers manually.
4. Has to maintain the bug details, paper descriptions, paper status details, paper description details, paper list details manually.
5. No efficient reporting system.

PROPOSED SYSTEM
Proposed aim overcomes the problem with existing system. The bug tracking system fulfills different requirements of administrator and employee of a software development organization efficiently. The specific purpose of the system is to gather and resolve issues that arise in different papers handled by the organization. The advantages of proposed system.
Advantages
➢ Internet application.
➢ The different groups and representatives can interact each through internet.
➢ Main objective of the system is to gather and resolve issues (bugs) that arise in different papers of the organization.
➢ Reduce The Timing.

SYSTEM ANALYSIS AND DESIGN
The paper "Bug Tracking and Reporting System Using Web – Based business Application" helps the Software Development companies to track the exact status of different paper bugs and to rectify their errors in time and in right manner.
• DEFINING THE PROBLEM
The problem in the existing system can be defined as the whole paper maintenance, users maintenance and their assignment has to be maintained manually. The Software development companies have to face a lot of problems while maintaining manually all the maintenance of the papers, their bugs and their status. This type of problem makes the whole system an inefficient one and thus making a poor and unorganized working. In order to remove this type of problem, the proposed is planned to develop.

User Module
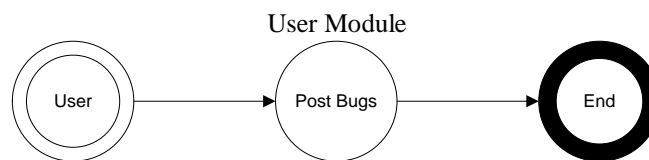
DEVELOPING SOLUTION STRATEGIES
The main objective of the proposed system is to full analyse the bugs and report the same to the administrator in an efficient manner so that he can get right information at right times. The paper objective is to fully systemize everything so that the possibilities of bugs should be reduced at all levels.
• BENEFITS
1. To track the status level of each paper.
2. To track the status level of each bug in the paper module.
3. To assign the papers to the users by the administrator.
4. To add the bugs by the administrator.
5. To add the status, severity levels by the administrator
6. To add a detailed bug information.

7. To add the modules in the paper and to track the person developing it.
8. To add the paper status levels by the paper managers
9. To add the paper bug levels by the users.
10. To give an efficient reporting system so that right decisions can be taken and at right times

Moreover to make the system fully utilize to reduce the bugs.

INPUT DESIGN

Input design is the process of converting user-oriented inputs to a computer-based format. The quality of the system input determines the quality of system output. Input design determines the format and validation criteria for data entering to the system.

Input design is a part of the overall system design, which requires very careful attention. If the data going into the system is incorrect then the processing and output will magnify these errors. Input can be categorized as internal, external, operational, computerized and interactive. The analysis phase should consider the impact of the inputs on the system as a whole and on the other systems.

In this paper, the inputs are designed is such a way that occurrence of errors are minimized to its maximum since only authorized user or administrator can able to access this tool. The input is given by the administrators are checked at the entry form itself. So there is no chance of unauthorized accessing of the tool. Any abnormality found in the inputs are checked and handled effectively. Input design features can ensure the reliability of a system and produce results from accurate data or they can result in the production of erroneous information.
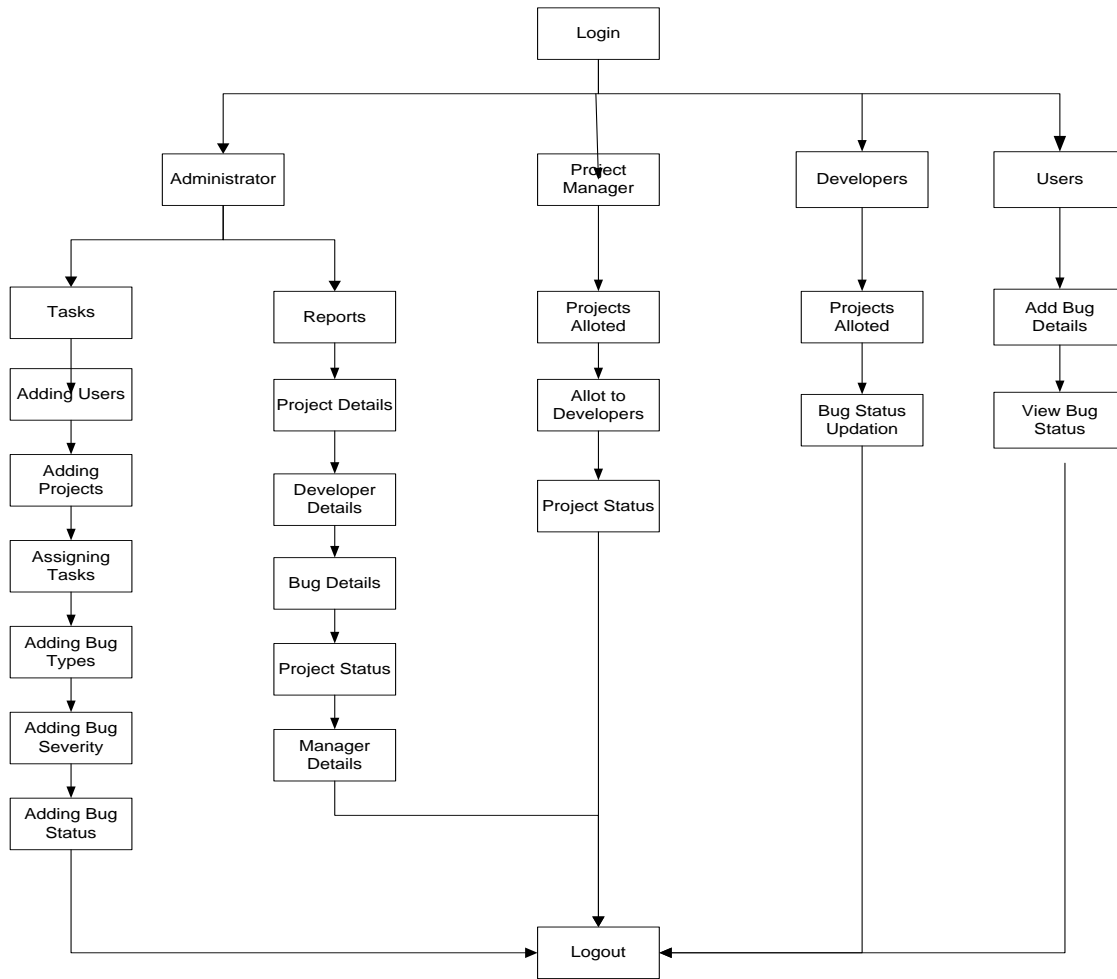
OUTPUT DESIGN

Computer output is the most important and direct source of information to the users. Designing the output should proceed in an organized, well thought out manner. The right output must be developed while ensuring that each output element is designed so that people will find easy to use the system. When analyst design the output, they identify the specific output that is needed to meet the information requirements.

The success and failure of the system depends on the output, though a system looks attractive and user friendly, the output it produces decides upon the usage of the system. The outputs generated by the system are checked for its consistency, and output is provided simple so that user can handle them with ease. For many end user, outputs is the main reason for developing the system and the basis on which they will evaluate the usefulness of the application.

IMPLEMENTATION PROCEDURE

Implementation is the stage, which is crucial in the life cycle of the new system designed. The main stage in the implementation is planning, training, system testing. Implementation is converting a new or revised system into an operational one. Conversion is the main aspect of implementation. It is the process of changing from the old system to the new one. After system is implemented, user conducts a review of the system. It is used to gather information for the maintenance of the system. The basic review method is a data collection method of questionnaire, interview etc.

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                                    ┌──────────┐
                                    │  Login   │
                                    └──────────┘

  ┌───────────────┐      ┌───────────────┐      ┌───────────────┐      ┌───────────────┐
  │ Administrator │      │    Project    │      │  Developers   │      │     Users     │
  │               │      │    Manager    │      │               │      │               │
  └───────────────┘      └───────────────┘      └───────────────┘      └───────────────┘

  ┌─────────┐  ┌─────────┐   ┌───────────┐        ┌───────────┐         ┌───────────┐
  │  Tasks  │  │ Reports │   │  Projects │        │  Projects │         │  Add Bug  │
  │         │  │         │   │  Alloted  │        │  Alloted  │         │  Details  │
  └─────────┘  └─────────┘   └───────────┘        └───────────┘         └───────────┘

  ┌─────────┐  ┌─────────┐   ┌───────────┐        ┌───────────┐         ┌───────────┐
  │ Adding  │  │ Project │   │  Allot to │        │ Bug Status│         │ View Bug  │
  │ Users   │  │ Details │   │ Developers│        │  Updation │         │  Status   │
  └─────────┘  └─────────┘   └───────────┘        └───────────┘         └───────────┘

  ┌─────────┐  ┌─────────┐   ┌───────────┐
  │ Adding  │  │Developer│   │  Project  │
  │ Projects│  │ Details │   │  Status   │
  └─────────┘  └─────────┘   └───────────┘

  ┌─────────┐  ┌─────────┐
  │Assigning│  │   Bug   │
  │  Tasks  │  │ Details │
  └─────────┘  └─────────┘

  ┌─────────┐  ┌─────────┐
  │ Adding  │  │ Project │
  │Bug Types│  │ Status  │
  └─────────┘  └─────────┘

  ┌─────────┐  ┌─────────┐
  │ Adding  │  │ Manager │
  │Bug      │  │ Details │
  │Severity │  │         │
  └─────────┘  └─────────┘

  ┌─────────┐
  │ Adding  │
  │Bug      │
  │Status   │
  └─────────┘

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                                    │  Logout  │
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POST IMPLEMENTATION REVIEW

The post implementation review is sometimes called system audit. The review is intended to accomplish two goals:

* Evaluate the operational information system that users developed.
* Evaluate the system development procedures to determine how the paper could have been improved.

• Verification:

Assertions used during formal verification of the detailed design were included as comments in the source code of this paper. Implementation is the stage of the paper when theoretical design is turned into a working system. The processing activities in this paper fall into categories. One is taking system services and other is displaying from the system.

• Installation:

After completing development of the paper, the software will be installed in the server computer using Microsoft Windows Installer. Since the application is the net-based software, the server and clients should have to be started to access. The server should be running on the operating system of at least windows2000.

For the installation of the software, the setup paper of the software has been created which will help us to install all the components used in the paper then only this utility or tool can run successfully.

The setup wizard will setup the product. This will automatically includes all files to setup kit. Since we place the tool in a network server, there is a chance to miss or damage the pages due to the trespassing.

So, we have to keep the backup copies of the setup files to required number of floppies or CDs or even in the hard disks and run the file called setup which will install the entire required component to computer. These pages are standalone and do not need development software to access it.

PAPER BUG TABLE DESIGN

Field name	Data type	Description
bugid	Number	Not Null
bugname	Text	Not Null
proid	Number	Not Null
proname	Text	Not Null
staid	Number	Not Null
sevid	Number	Not Null

BUG TYPES TABLE DESIGN

Field name	Data type	Description
typid	Number	Primary key
Typname	Text	Not Null
Typdesc	Text	Not Null

CONCLUSION

This paper" Bug Tracking and Reporting System using Web – Based Business Application" helps an Software Concern to detect and manage the bug in their products effectively-efficiently. Utilizing bug tracking software can assist in troubleshooting errors for testing and for development processes. With the ability to provide comprehensive reports, documentation, searching capabilities, tracking bugs and issues, bug tracking software is a great tool for those software development needs. We concluded that current bug tracking system have some of limitation. They do not effectively collect all the information needed by developer, reporter and anonymous user.

Depending on your development needs and the bug tracking software, you can hope to gain several benefits from bug tracking software.
Some of the benefits are:
- Improve communications between groups of people
- Increase the quality of the software
- Improve customer satisfaction with bug free software
- Provides a form of accountability

Increases overall productivity

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