



# **TITLE- DEBUGGING OF ERROR**

A Report of Evaluation 3 of project 2

Submitted by

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**SCHOOL OF COMPUTING AND SCIENCE AND  
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**BONAFIDE CERTIFICATE**

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## Abstract

**Debugging of Error** is the system which enable to detect the bugs. It not merely detects the bugs but provides the complete information regarding bugs detected. Debugging of Error System ensures the user of it who needs to know about a provide information regarding the identified bug. Using this no bug will be unfixed in the developed application. The developer develops the project as per customer requirements. In the testing phase the tester will identify the bugs. Whenever the tester encounter n number of bugs he adds the bug id and information in the database. The tester reports to both project manager and developer. The bug details in the database table are accessible to both project manager and developer. When a customer puts request or orders for a product to be developed. The project manager is responsible for adding users to Debugging of Error System and assigning projects to the users.

The project manager assigns projects to the developers. The developer develops the projects as per customer requirements. The project manager itself assigns the developed applications to the Testers for testing. The tester tests the application and identify the bugs in the application. When the tester encounter no. of bugs, he generates a unique id number for each individual bug. The bug information along with its id are mailed to the project manager and developer. This is Error Report. These are stored in the database. This is useful for further reference.

## 2. INTRODUCTION

### **Project Overview**

Debugging of Error is the process of reporting and tracking the progress of bugs from discovery through to resolution, where a bug is defined as a deviation from requirements. Other terminology frequently used to describe this process include

- problem tracking
- change management
- fault management
- trouble tickets

Debugging of Error systems are most commonly used in the coding and testing phases of the software development process. However, tracking systems can in fact be used for many other purposes such as general issue tracking, simple task lists, help desk situations or contact management, where the focus is on the tracking aspect rather than what is being tracked. Even in software development, tracking systems are quite often not limited to simply tracking bugs, but extended to track feature requests or enhancements as well as enquiries.

Required software is for conducting online thesis management and provides upload and download function. The system should satisfy the following requirements:

- **Administrator Aspect**

To upload thesis, documents, presentation by providing the title and description.

To approve users to access the system.

To maintain the details of members and thesis.

To view all the members and thesis.

To Upload thesis, documents, presentations

To change password.

Scheduling the work.

- **Student Aspect**

To view/update their profile.  
To update their password.  
To download thesis, documents, presentations.  
To search thesis by name, title, authors etc.

- **Analysis**

Authenticating users based on username and password.

Keeping session track of user activity.

Only registered candidate can download thesis.

Only administrator can upload thesis.

## **1.1. External Interface Requirements**

### **Software Requirements**

Operating System	:	Windows XP/ Windows 7/8
User Interface	:	HTML, CSS
Client-side Scripting	:	JavaScript
Programming Language	:	Java
Web Applications	:	JDBC Servlets, JSP
Database	:	Oracle/Access

### **Hardware Requirements**

Processor	:	Pentium IV
Hard Disk	:	40GB
RAM	:	256MB

### **Database**

Oracle Server

## 1.2. Non-Functional Requirements

- System should be able handle multiple users
- Database updating should follow transaction processing to avoid data inconsistency.

### 1.2.1. Security

- Administrator has the highest authority to edit/delete/create database
- Administrator have the authority to add/expel students
- Students can view and download thesis

### 1.2.2. Reliability

Data validation and verification needs to be done at every stage of activity.

- Validating user input
- Use of locking mechanism while updating database like transaction processing
- Recovering the transaction using rollback.

### 1.2.3. Portability

- The web application will be built using JSP which has support to run on any platform provided the required compilers are available.
- For database SQL Server would be used, that too has extensive support over many popular architectures and operating systems.

### 1.2.4. Performance

The system would be used by multiple users at a time and may grow as time passes; the system would need to implement multithreading to achieve acceptable performance. Further a database connection pool may also be required for assigning faster database connection.

### **1.3. Database Requirements**

The overall objective in the development of the database technology has been to treat data as an organizational resource and as an integrated whole. Database management system allows data to be protected and organized separately from other resources. Database is an integrated collection of data. The most significant of data as seen by the programs and data as stored on the direct storage access storage devices.

### **3. Existing System**

The bugs that are identified by tester in software testing phase are reported to Project Manager and developer through simple shared lists and emails. Most of the companies share this information through document called "Defect report". This procedure is error prone and there is ample chance of leaving some bugs unfixed and ignored as there is no particular tracking system in place. The team involved in the software development life cycle must be aware of the status of each and every bug reported. The existing system fails to fulfill this requirement thus it affects productivity and accountability of every member of team.

### **4. Proposed System**

Debugging of Error system is essentially and effectively implemented to monitor the status of bugs in an application. All the bugs that are identified are stored in a database. Each bug is assigned with a unique bug id and respective status of bug. Bugs can be created and updated with ease. Specific user accounts to control the access and maintain security are incorporated into the application.

Debugging of Error system which is implemented on Java provides an overview on standards of coding of the developers involved. Employee accountability can be tracked and analyzed on daily basis by using report generation option.

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



## 5- IMPLEMENTATION AND ARCHITECTURE

### Technologies

This section lists all the technologies for the web based system.

- **Core Java:** Java is a set of computer software and specifications developed by Sun Microsystems, later acquired by Oracle Corporation that provides a system for developing application software and deploying it in a cross-platform computing environment.
- **Servlet:** Java Servlets are programs that run on a Web or Application server and act as a middle layer between requests coming from a Web browser or other HTTP client and databases or applications on the HTTP server.
- **HTML:** HTML is a markup language for describing web documents (web pages). HTML stands for Hyper Text Markup Language. A markup language is a set of markup tags. HTML documents are described by HTML tags. Each HTML tag describes different document content.
- **SQL:** SQL is a fast, easy-to-use RDBMS being used for many small and big businesses. SQL is becoming so popular because of many good reasons like SQL is released under an open-source license. So we have nothing to pay to use

# ARCHITECTURE DESIGN

## **Data Flow Diagram**

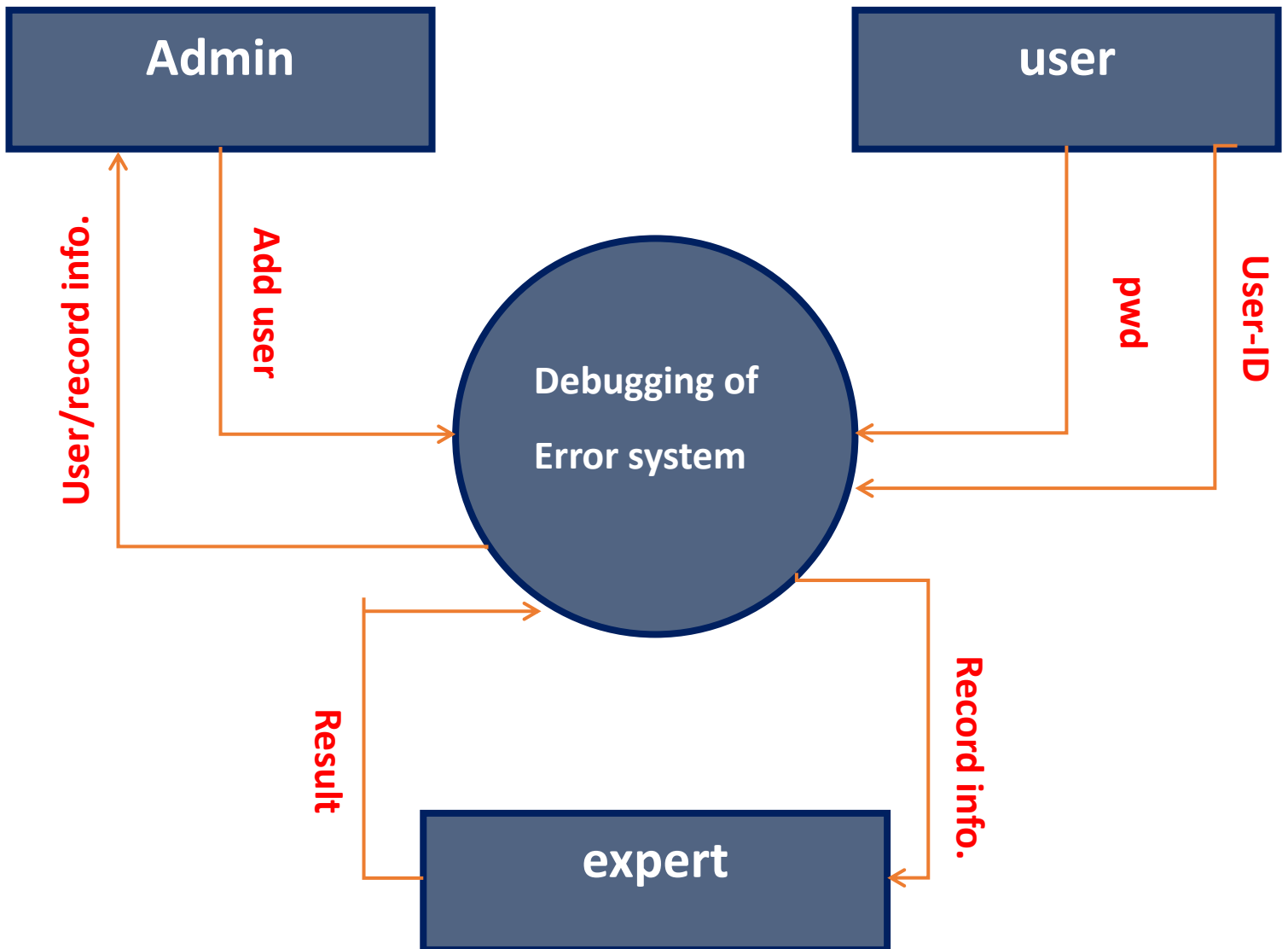
DFD, we give names to data flows, processes, and data stores. Although the names are descriptive of the data, they do not give details

## **DFD Symbols**

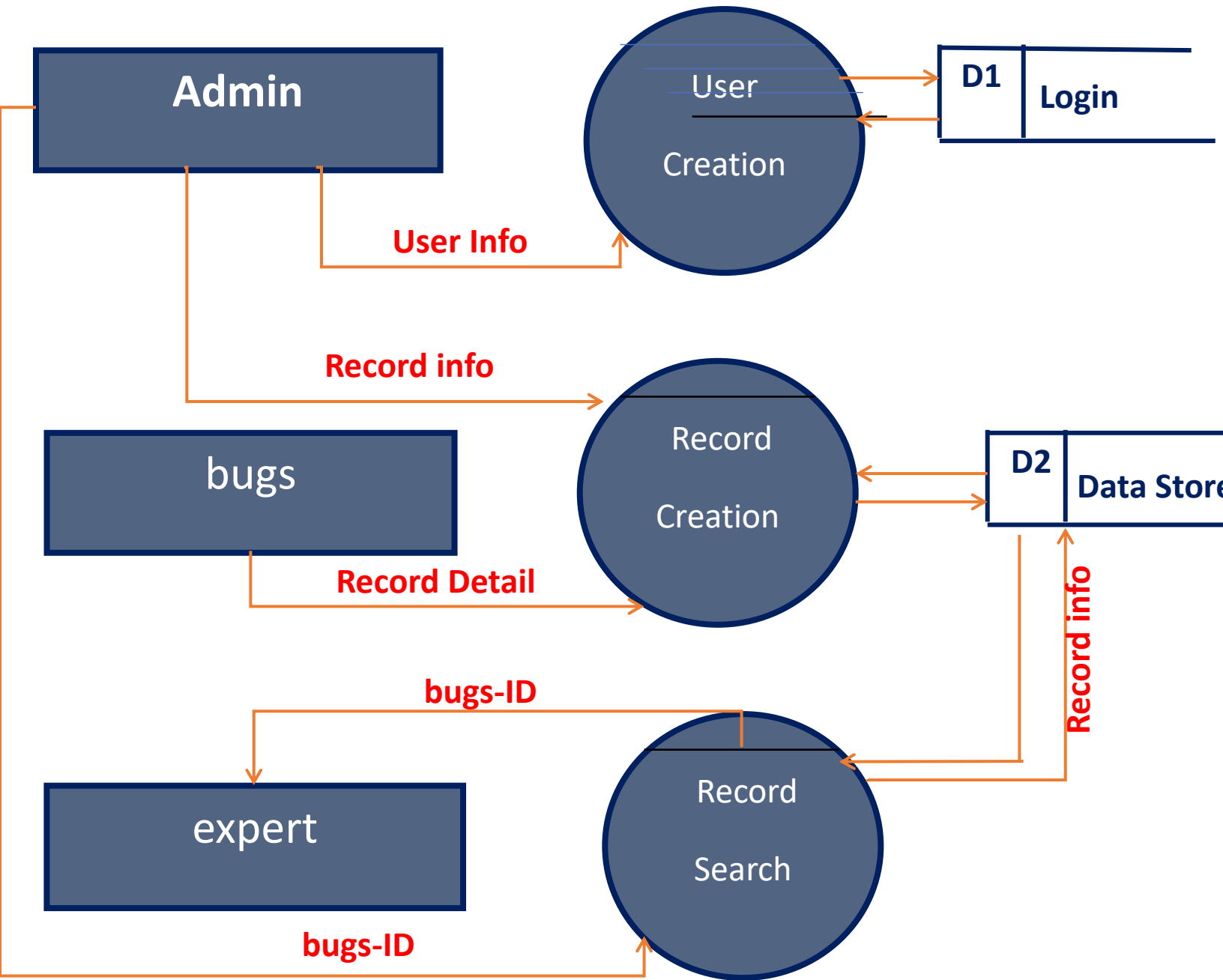
In the DFD, there are five symbols,

- 1 A Square defines a source (originator) or destination of system data.
- 2 An Arrow identifies data flow- data in motion .It is pipeline through which information flows.
- 3 A circle or a bubble (or a oval bubble) represents a process that transforms incoming data flow(s) into outgoing data flow(s)
- 4 An Open rectangle is a data store-data at rest, or temporary repository of data.

## Data Flow Diagram: Level 0

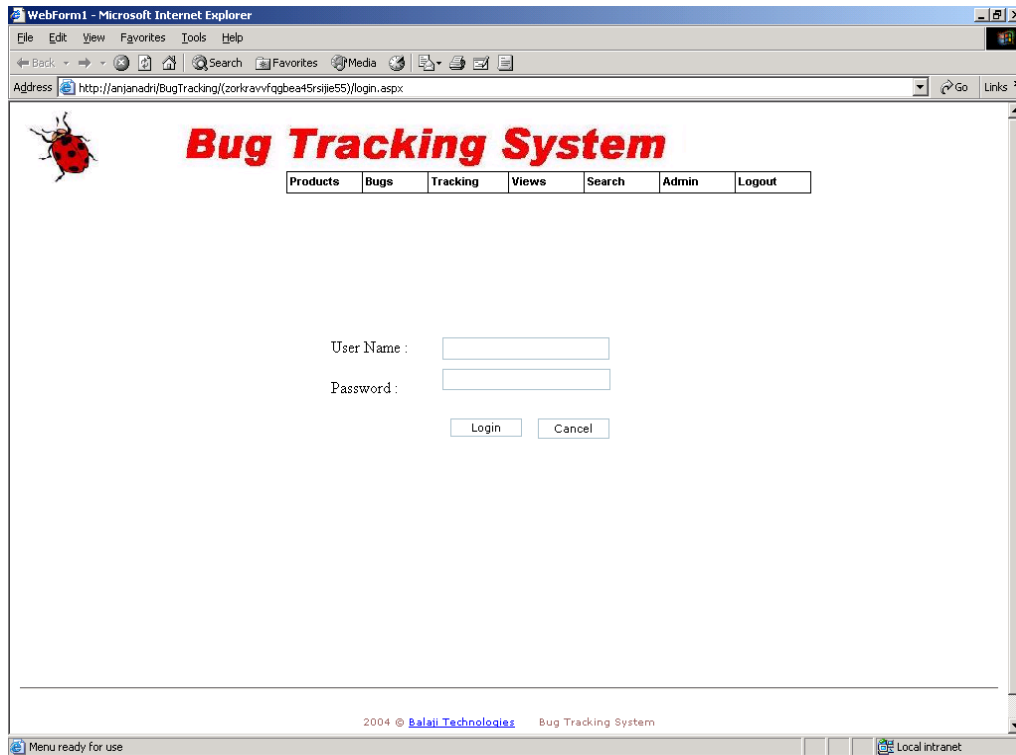


# Data Flow Diagram: Level 1

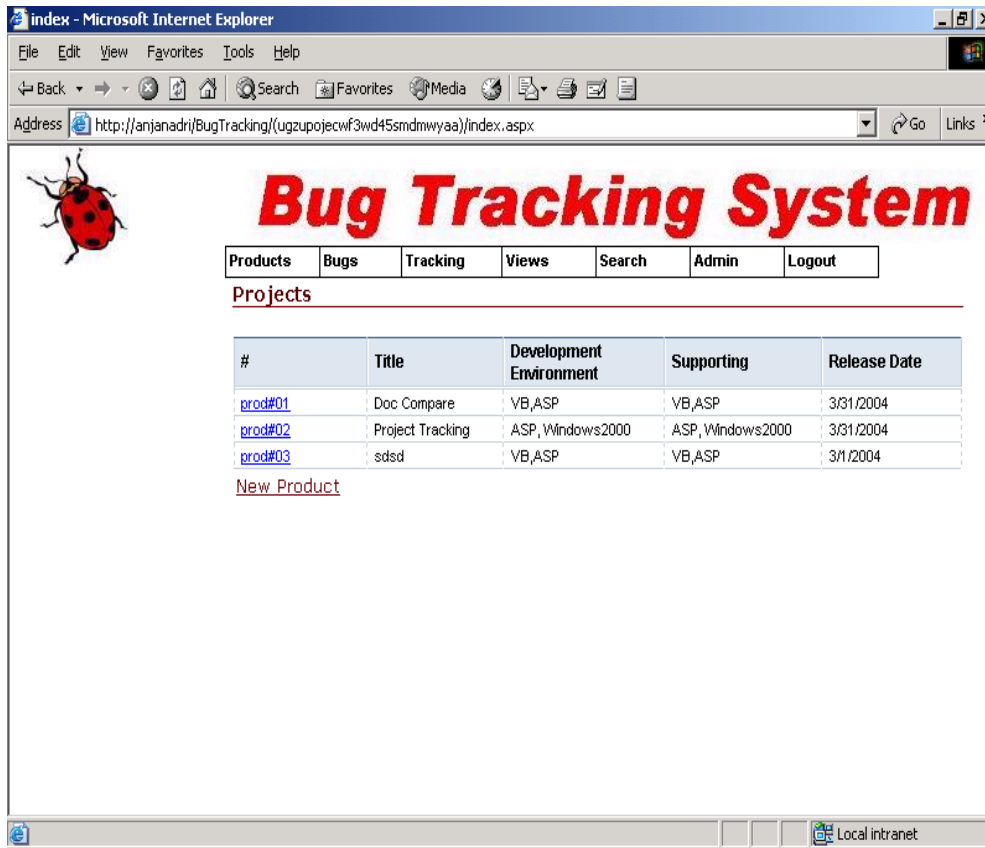


# Output

## Admin Page




## 4.8 Expert resolve bugs



index - Microsoft Internet Explorer

Address [http://anjanadri/BugTracking/\(ugzupojecwf3wd45smdmwyaa\)/index.aspx](http://anjanadri/BugTracking/(ugzupojecwf3wd45smdmwyaa)/index.aspx)



# Bug Tracking System

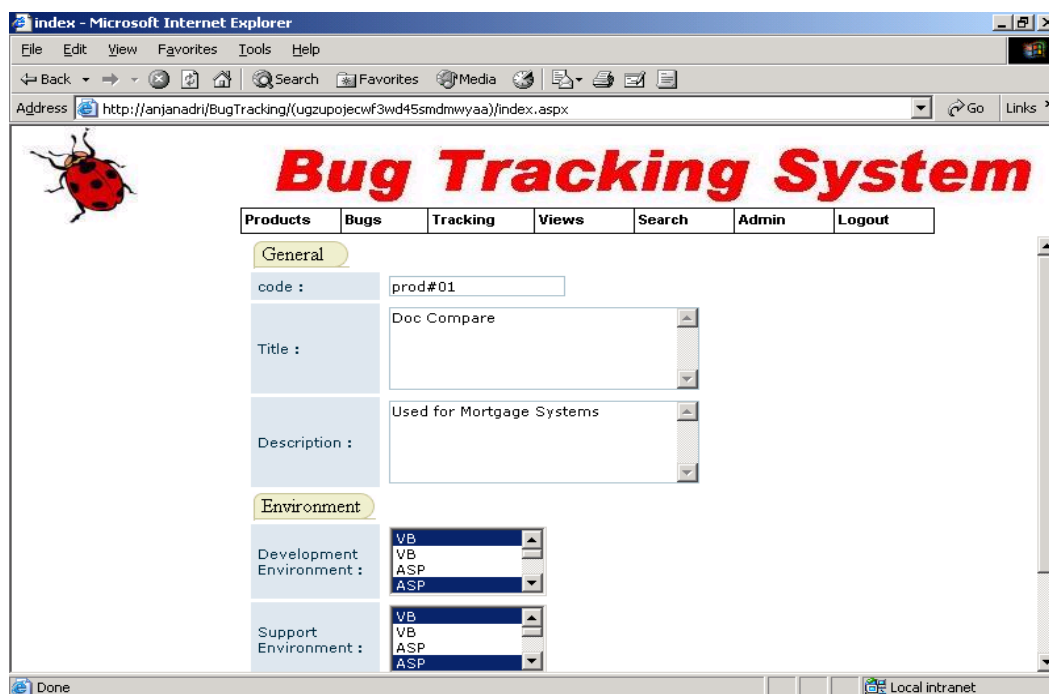
Products	Bugs	Tracking	Views	Search	Admin	Logout
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Projects

#	Title	Development Environment	Supporting	Release Date
<a href="#">prod#01</a>	Doc Compare	VB,ASP	VB,ASP	3/31/2004
<a href="#">prod#02</a>	Project Tracking	ASP, Windows2000	ASP, Windows2000	3/31/2004
<a href="#">prod#03</a>	sdsd	VB,ASP	VB,ASP	3/1/2004


[New Product](#)

Local intranet



index - Microsoft Internet Explorer

Address [http://anjanadri/BugTracking/\(ugzupojecwf3wd45smdmwyaa\)/index.aspx](http://anjanadri/BugTracking/(ugzupojecwf3wd45smdmwyaa)/index.aspx)



# Bug Tracking System

Products	Bugs	Tracking	Views	Search	Admin	Logout
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General

code :

Title :

Description :

Environment

Development Environment :

Support Environment :

Done

Local intranet

## **7 Conclusion**

This Paper Debugging of Error and Reporting System 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, Debugging of Error software is a great tool for those software development needs. Depending on your development needs and the bug tracking software, you can hope to gain several benefits from Debugging of Error software. The purpose of Debugging of Error for improving software reliability is to provide better service to the administrator or useful for applications developed in an organization.

## **Future Enhancements**

### **Limitations and Future Enhancements**

#### **Limitations of the system:**

- Only the permanent employees can access the system.
- System works with windows'98 and its compatible environments.
- Advanced techniques are not used to check the authorization.
- Once the employee is registered to a course cannot drop, without completing

## 8 REFERENCES

- 1) [www.google.com](http://www.google.com)
- 2) [www.wikipedia.org](http://www.wikipedia.org)
- 3) Programming in Java by Balaguruswamy.
- 4) Google News [www.googlenews.com](http://www.googlenews.com)
- 5) Microsoft Network [www.msn.com](http://www.msn.com)
- 6) CDNOW [www.cdnw.com](http://www.cdnw.com)