Journal for Research | Volume 03| Issue 02 | April 2017
ISSN: 2395-7549

Intrusion Detection System for College ERP System

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Abstract

This project focuses on the practical application of various NIDS techniques. The system which we are planning to make is a college ERP system. This system includes features of college ERP (Admin module, Office module, Exam module, Inventory module). To deploy such system in college, we would need lot of security. However in college which have lots of students, then it would be harder to manage the security. For college ERP system, we would then demonstrate all possible attacks. This attacks may have varying impacts on the system. Finally we would be implementing a NIDS which detect and block attacks.
Keywords: College ERP System, Intrusion Detection System, NIDS techniques, component, insert, formatting, style, styling

I. INTRODUCTION

With the development of network technologies and applications, network attacks are greatly increasing both in number and severity. Intrusion Detection System (IDS) plays a vital role of detecting various kinds of attacks and secures the networks. Main purpose of IDS is to find out intrusion among normal audit data and this can be considered as classification problem. Intrusion Detection System (IDS) are an effective security technology, which can detect, prevent and possibly react to the attack. It performs monitoring of target sources of activities, such as audit and network traffic data in computer or network systems, requiring security measures and employs various techniques for providing network security. College ERP system must need NIDS to makes procedure very easy.

II. EXISTING SYSTEMS

At present in colleges all records maintained manually. There are thousands of students joining each year. As the year's goes then number of students also get increases, for the staff to maintain all these students' records is very tedious and time consuming. Update fee, test marks, test result all these need to be done in time to achieve college management need to be recruit more peoples. To solve this problem this project is prepared which help the management to maintain this records accurately.

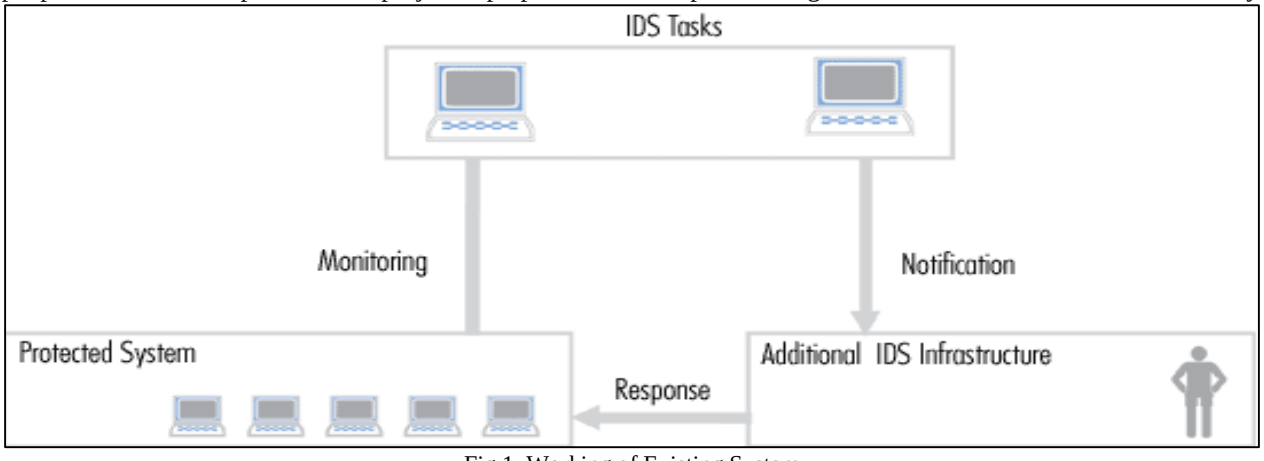

Fig 1. Working of Existing System

III. PROPOSED SYSTEM

A. General

In the proposed system all the parameter are considered to maintain easier solutions. In college to maintain all student records they need have more staff and also place to maintain the records. Even maintained properly whenever required they are not available. To solve this problem this program is designed. It serve the purpose of maintain records.

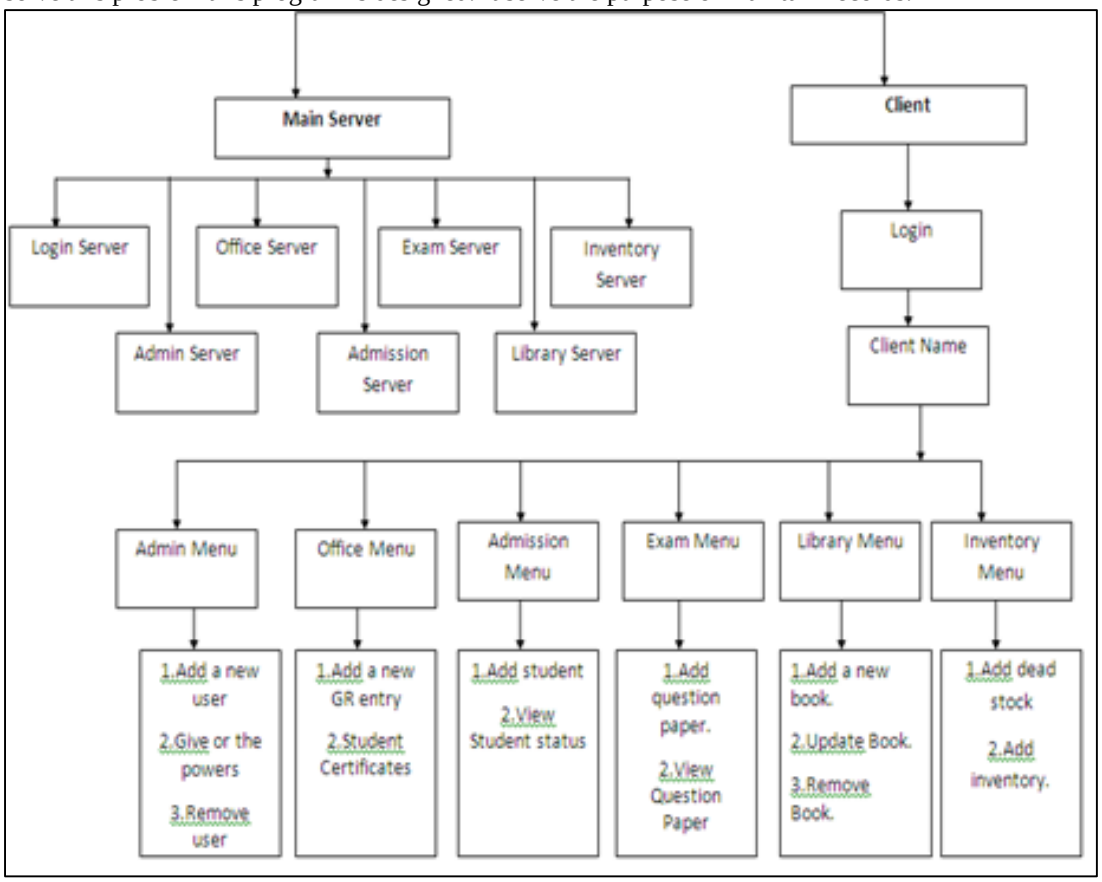

Fig. 2: Working of Proposed System

IV. FOUR MODULES IN COLLEGE ERP SYSTEM

1) Admin Module (to create or delete users):
In admin module creation of records of new students has done
2) Office Module (GR entry and other issues):
By that college keep track of record of all the students.
3) Library Module (Library student accounts and issuing of books):
Maintain record of student accounts and issuing of books in library module.
4) Inventory Module (Keeping track of inventory in college);
This proposed system makes use of network intrusion detection system, shortly known as NIDS system. It has got various modules that simplify the workload of college because it is automate all the procedure.

- In admin module creation of records of new students has done
- By that college keep track of record of all the students.
- Maintain record of student accounts and issuing of books in library module.
- Keep track of inventories in college by inventory module.
- Every part of college ERP system should work well for that system has parallel security by NIDS that manage all the operation and provide security to attacks that may happen to system.
- Basically, NIDS system is operate between client and server of system. In system students are client and server of college has all the data on database system
- For implementation of NIDS on college ERP

V. SOFTWARE REQUIREMENT

1) JDK 1.7
2) MYSQL
3) NETBEANS

A. Client side:

Students need to login into account of college for books and register for exams hosted on main server of college. This ensures that record is track on college system. All the students are monitored. You are now ready to style your paper; use the scroll down window on the left of the MS Word Formatting toolbar.

VI. IMPLEMENTATION

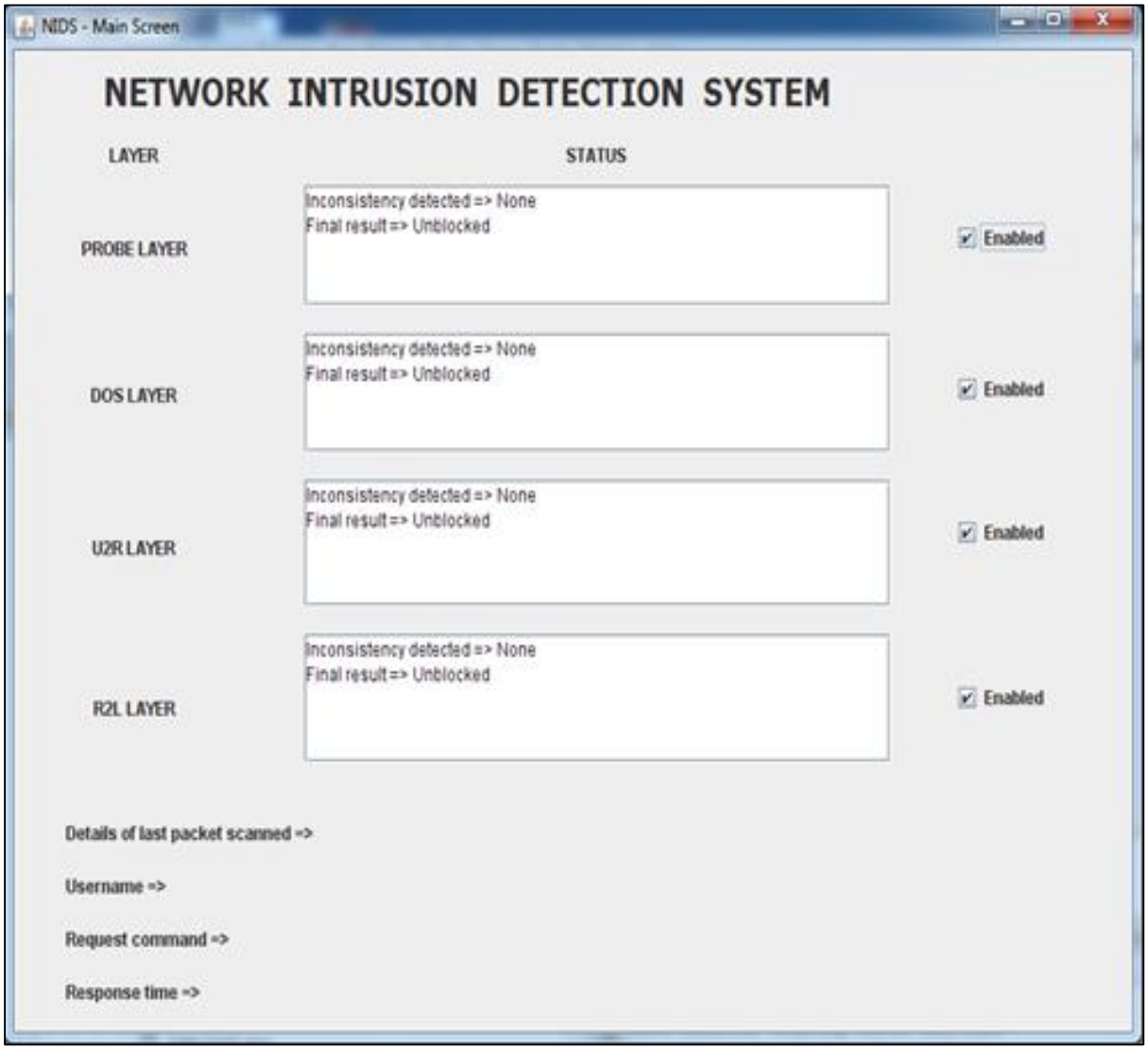

Fig. 3: (a) Working of Network Intrusion Detection System.

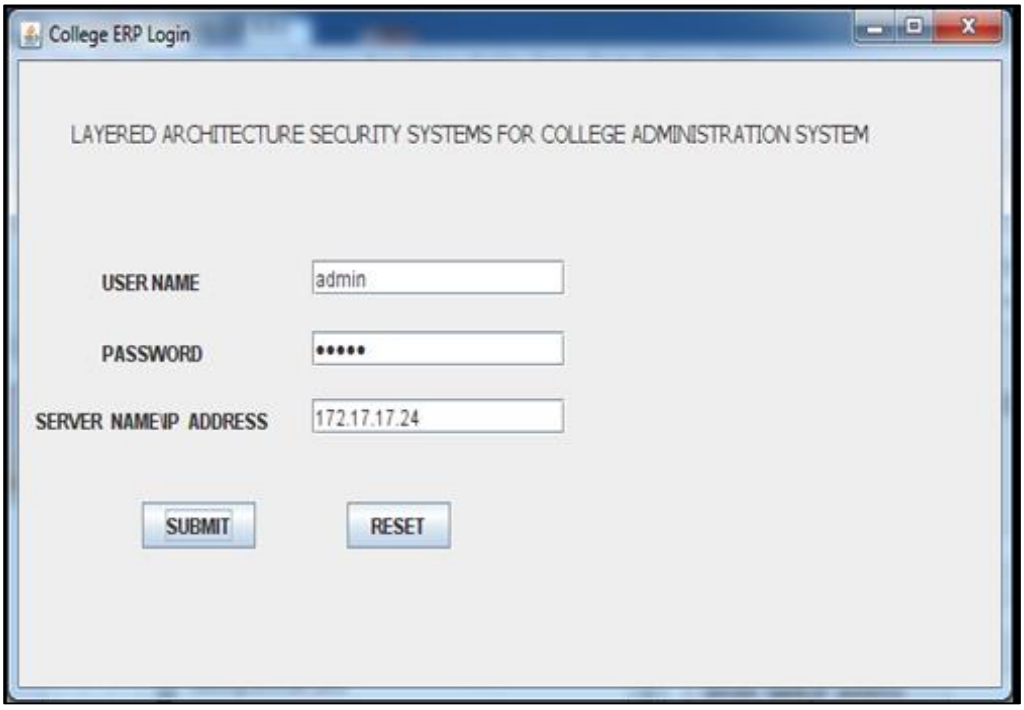

Fig. 3.b: Login Credentials

VII. CONCLUSION

Our project focuses on the practical application of various nids techniques. For this we first would select a system which has sum security drawbacks. Here the system which we are planning to make is a college ERP system. To sure access to this system is monitored. However in a college which have lots of students (e.g. our college has Computer & IT engineering students who have interest in security vulnerabilities), then it would be harder to manage the security, deploying such a system in any institution (say a college), we would need lot of security checks to be made. For our college ERP system, we would then demonstrate what all possible attacks can be made on the system. These attacks may have varying impacts on the system. Finally we would be implementing a NIDS which would detect and block such attacks. Here we would use simple but effective techniques to block all the attacks. To detect attacks, we will be using a layered approach combined with a decision tree based architecture of nids through college ERP system.

ACKNOWLEDGMENT

We wish to express our sincere gratitude to Mrs. Vijaya Pinjarkar, Project Guide for providing us an opportunity to do our project work in Security domain. We sincerely thank Mr. Uday Rote, HOD of IT Department and Mr. Harsh Bhor, Project Coordinator for their guidance and encouragement in carrying out this project work. We also wish to express our gratitude to the officials and other staff members of K.J Somaiya Institute of Engineering and Information Technology, who rendered their help during the period of our project work.

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