Customization and Implementation of LMS Moodle

Shivangi Saraswat

Dept Of CSE, Sobhasaria Group of Institute, Sikar , Rajasthan, India

Abstract- Moodle is a online E-learning management system Which is adopted globally by various colleges, Universities and Organization to enhance online learning [1]. Online learning Management systems offer elementary tools to share course Materials to communicate with students, collect assignments and manage grades. Moodle was designed to support a additional cooperative and participative teaching and learning atmosphere than different learning management systems. Authors aim to Implements the design and development of E-learning LMS based on Moodle which is designed for a category in which there are three courses program. The system is intended to be dependent on the availability of the graduate/postgraduate, administrative and scientist is dependent on Moodle open-source. In this paper authors have mainly focused on Customization and implementation of LMS Moodle.

Index Terms- LMS, E-Learning

I. INTRODUCTION

The word Moodle is an acronym for Modular Object-Oriented Dynamic Learning Environment: Moodle is a license free open-source software platform. The systems which involved with E-Learning also call it as Learning Management System (LMS) as shown in Fig.1 or Virtual Learning Environment (VLE). Moodle is designed to help educators and content experts to create online courseware with opportunities for rich interaction. Its open source license and modular design allows content experts to develop additional functionality. Development of this E-Learning platform is undertaken by a globally diffused network of commercial and non-commercial users, spearheaded by the company based in Perth, Western Australia. E-learning provides the opportunity for student to interact electronically with each other as well as with their teachers. This interaction can be via e-mail or on discussion board or in chat rooms. Though recognizing that the world at large will persist to use language and terminology in different ways, so the term of Learning Management System (LMS) is used to refer the on-line interactions for a variety of kinds that take place between students and teachers. There are many software systems available that provide LMS systems. This software is available in both forms, commercial and open source software (OSS). Moodle is one of the systems that have been increasingly gaining worldwide popularity in E-learning system.

The open source teaching management, LMS Moodle has been adopted by many people and organizations around the world because it offers a tightly integrated set of tools said to be designed from a social constructive perspective[3]. Moodle has been developed under the general public license and many of its components were developed without a specific design

Documentation including its security services. Moodle as Modular Object-Oriented Dynamic Learning Environment soon imposed itself as best solution and is becoming one of the most common used learning management system. Data obtained from official Moodle statics sites confirms the mentioned fact Moodle has an ability of tracking the learner's progress, which can be monitored by both teachers and learners. This fact implicitly includes both security and privacy threats and makes Moodle vulnerable system.

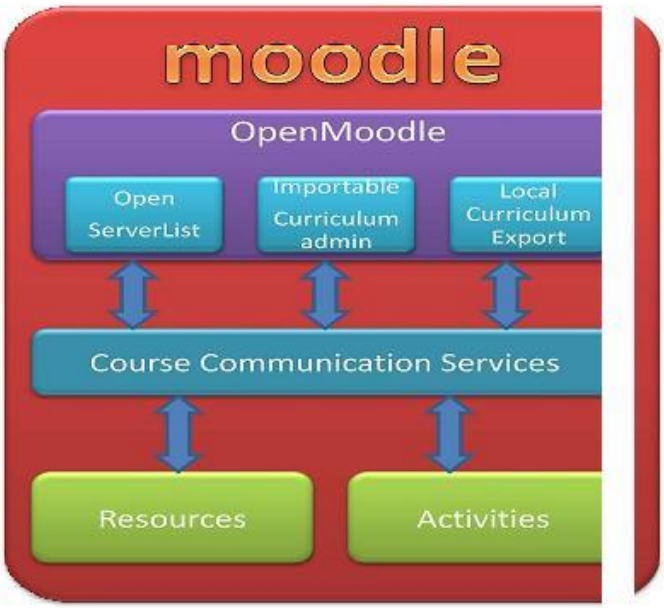

Fig .1 LMS Moodle

II. LEARNING MANAGEMENT SYSTEM (LMS)

LMS(Learning Management System) as shown in Fig.2 is defined as interactive learning in which the learning content is available online and provides automatic feedback to the students learning activities. While recognizing that the world at large will continue to use terminology in different and often ambiguous ways, the term of LMS is used here to refer to on-line interactions of various kinds including on-line learning that takes place between learners and instructors. The most widely adopted accession to e-education is the form of Learning Management System (LMS), which is the basis for a reliable e-learning platform and complies with standards and best practices recommended by respectable educational and corporate stakeholders. Modern trends and best practices in education require usage of courseware tools in order to support the teaching and learning processes, as well as efficient assessment.

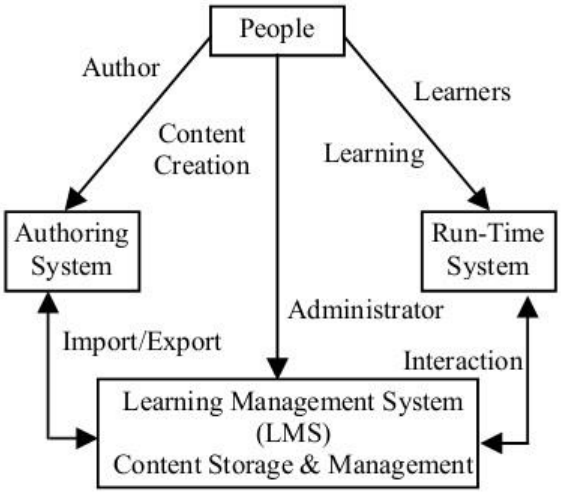

Fig. 2 LMS Moodle

III. MOODLE FOR E-LEARNING

Moodle (Modular Object-Oriented Dynamic Learning Environment) is largely associate Open supply e-learning platform. Moodle could be a Course Management System (CMS), a code package designed to assist educators to make quality on-line courses[2]. Such E-learning systems area unit typically conjointly known as Learning Management Systems (LMS) or Virtual Learning Environments (VLE). Moodle presents a wonderful platform for resources and communication tools. It was created by Martin Dougiamas, a scientist and educator UN agency deeply believes that a CMS ought to be created by an educator associated not by an engineer. To run, Moodle should 1st be put in on a main server; associate administrator configures the settings to alter access through user names and passwords. The user accesses Moodle through the Internet because it is net based mostly and doesn't ought to install anything domestically. Moodle is written in php with associate SQL database. Moodle has updates put in from time to time and so it's regularly being changed and increased. Moodle may be a template-based system to that content should be added.

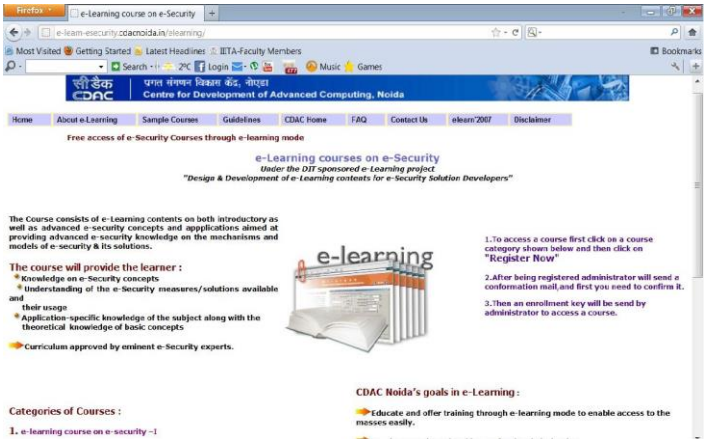

Fig. 3 Home Page-1

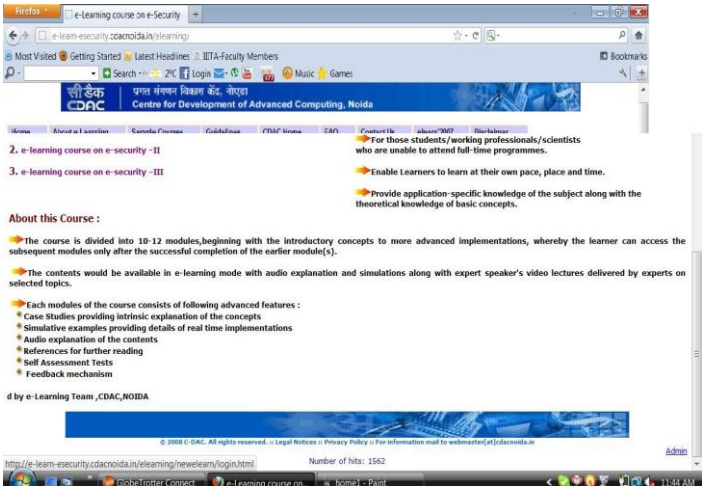

Fig.4 Home Page-2

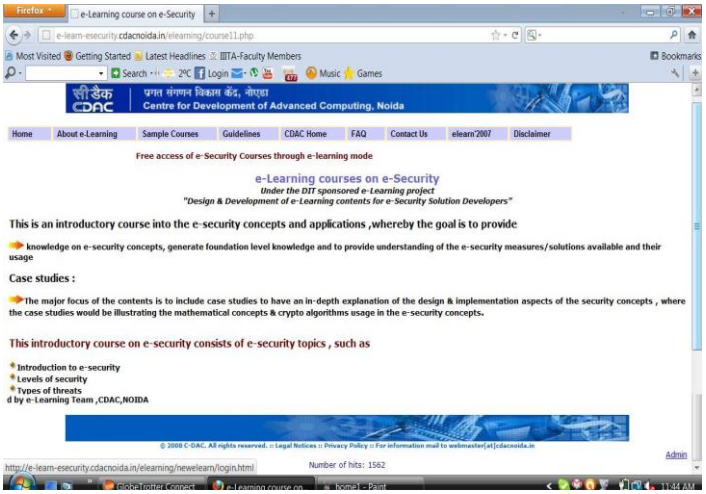

Fig.5 Course Wise Page-1

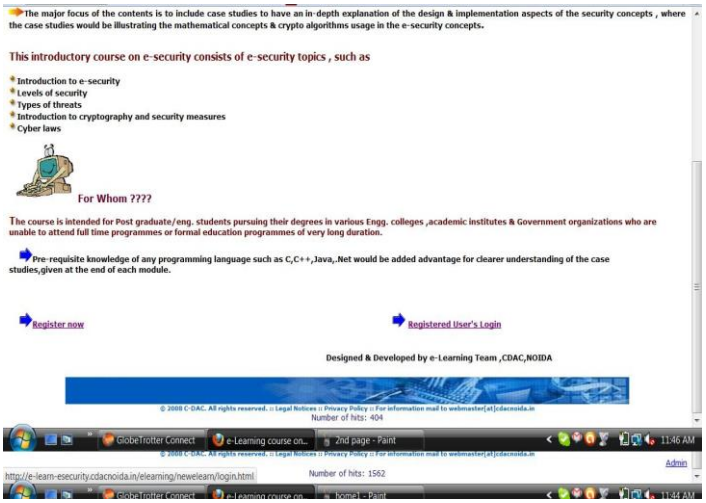

Fig 6 . Course Wise Page-2

This makes Moodle´s interface terribly intuitive and allows for straightforward navigation. The total page is given during a format. It's arranged move into tiny blocks and arranged around sections following a subject or weekly define. Each section has its own tools like lessons, quizzes, assignments, and forums. All

blocks on a page will be individually organized, and therefore the components inside every section can be simply enraptured around or be hidden.

IV. E-LEARNING MODELS

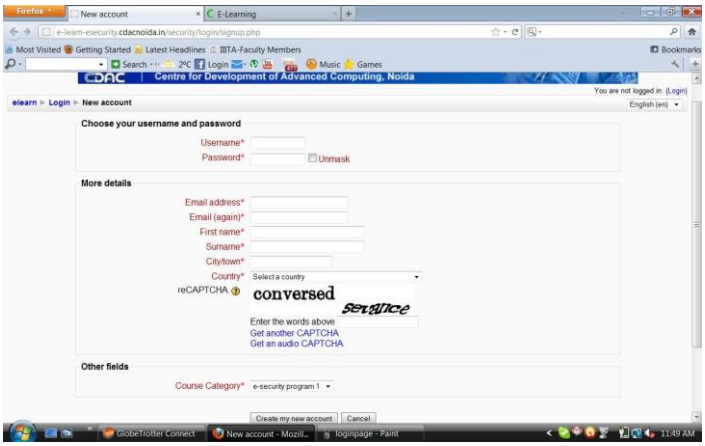

Fig 7. Course Registration Page

Self Learning

This model is very helpful for reducing requirements for trainers/teachers/tutors.

Supported Self Learning

Supported self-learning can be particularly suitable for online adult learning, where it is important to provide tailored paths and the tutor intervenes as a counselor

Virtual Class

Such a model corresponds to the classroom in the traditional sense

Collaborative Learning

This model corresponds to the one of a class involved in project work activities

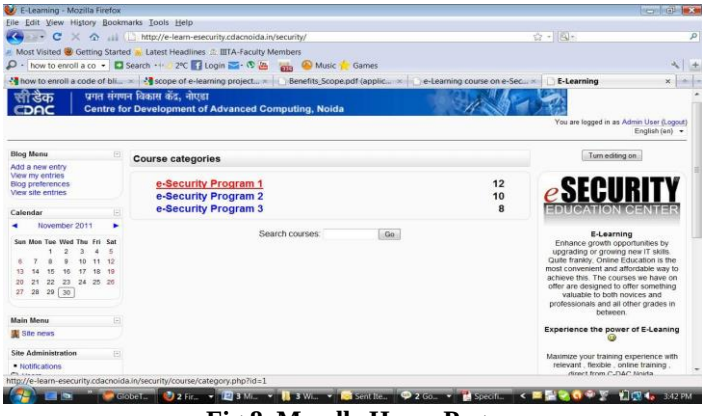

Fig 8. Moodle Home Page

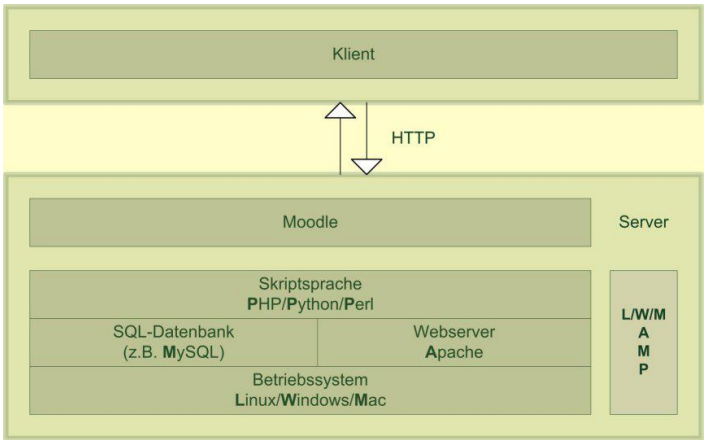

Fig. 9. LMS Moodle System Architecture

V. TECHNICAL REQUIREMENTS

Project required Moodle/PHP, Flashplayer, MySQL(5.0), Apache tomcat, Window XP, Dreamweaver, Adobe Photoshop, HTML, CSS, Java Script, Ajax which is an powerful Learning Management System (LMS).Moodle LMS has several features considered typical of an e-learning platform, plus some original innovations. Moodle can be used in many types of environments such as in education, training and development, and business settings .

Hardware Interface

– CPU 1 GHz or higher Processor clock speed (Intel
Pentium / Celeron Family / AMD K6 / Athlon / Duron or other
– Compatible Processors)
– Ram 128 MB
– Free Disk space 4 GB
– Super VGA (800*600) adaptor

Client Side

– Operating System : Windows 2000 / XP
– Moodle/PHP
– Language : HTML, PHP
– Database : MYSQL Server 5.3
– Browser : Internet explorer or Compatible Browser

Server Side

– Operating System: Windows 2000/XP (Unicode Enabled)
– Browser : Internet explorer or Compatible Browser
– Moodle LMS uses APACHE Tomcat as the application server
– MySQL as database server

Communication Interface

– Microsoft Internet Explorer, Mozilla Firefox or any other popular web browser.
– HTTP communication standard will be used.

VI. CUSTOMIZATION OF MOODLE

Authors have presented the customization of Moodle. Fig.3 is showing the course home page of customized moodle and Fig.8 is giving an idea about the Moodle Home Page**.**

Home Page

Making of this web portal, where we enter the whole desired information regarding e-learning courses on e-security. From this user can easily access the courses

Course Wise Page

As shown in Fig (5,6) This program consist of 3 course, this one is the 1st course of the program, which is basically for the Students group graduates and post graduates students where we provide understanding of e-secuirty measures/ solutions available and their usages.

Registration Page

Here the user can register yourself to access the course, after registration an enrollment key should be provide to the users, where user can easily access their courses.This Fig.7. Shows:

VII. ARCHITECTURE

Fig 9. Shows the architecture of LMS Moodle

VIII. FUTURE SCOPE

The future scope of LMS Moodle is in the area of academic research and Modern E-Learning platforms. In the upcoming future there will be challenge to create more secure and reliable E-Learning environment platform which can accommodate larger no of users and bulky traffic and can provide advance services. It is essential to remove all the security flaws of the LMS Moodle. We focus on the authentication attack. This work can be extended by addressing other security issues of the LMS Moodle.

IX. CONCLUSION

Authors have done the customization and implementation of LMS Moodle. Moodle is such a successful open-source LMS and is widely adopted around the world. Developers can customize functionality for specific purposes on their demand. Moodle is a kind of E-learning system and it is now widely used all over the world by companies, independent educators, schools, institutes, universities and home schooling parents .It has great potential for creating a successful E-learning experience by providing an abundance of excellent tools that can be used to enhance conventional classroom instruction in any E-learning system. Authors aimed to discover the best and the most suitable choice of E-learning system. Authors have Succeeded in finding that optimal E-learning platform is LMS Moodle.

REFERENCES

[1] H. Kopka and P. W. Daly, A Guide to LATEX, 3rd ed. Harlow, England: Addison-Wesley, 1999.

[2] Cook, J. (2001). The Role of Dialogue in Computer-Based Learning and Observing Learning: An Evolutionary Approach to Theory. Journal of Interactive Media in Education, 2001(Theory for Learning Technologies).

[3] Kameron, Saskia E., A Review of Free Online Learning Management Systems (LMS), TESL-EJ, ISSN 1872-4303, vol.7, No.2, M-2,http://www-writing.berkeley.edu/TESL -EJ/ej26/m2.html.bibitemIEEEhowto:kopka Branzburg, Jeffrey, (Aug 15,2005), How To: Use the Moodle Course ManagementSystem, http://www.techlearning.com/story/show Article.

AUTHORS

First Author – Shivangi Saraswat, M.Tech(IT), Asst Prof , Dept Of CSE, Sobhasaria Group Of Institute ,shivi666811@gmail.com