

**MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE,
GWALIOR**



MINOR PROJECT REPORT

ON

COURSE MANAGEMENT SYSTEM

Department Of I.T.

SUBMITTED TO :

MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR

SUBMITTED BY :

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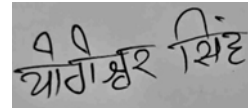
CERTIFICATE

This Is certified that the Work Embedded In This Minor Project Entitled “**Course management system**” Being Submitted By **Tarun Mandraha, Dept. of IT MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR. During The Academics Year 2020-21** Is A Record Of Bona-fide Piece Of Work , Carried Out By Under our Supervision And Guidance In The Department Of Information Technology MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR.



(Prof. Vikas Sejwar)

Mentor



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Department Of Information Technology

DECLARATION

I am the student of Information Technology , Session : 2020-21 MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR. Here By Declare That The Work Presented In This Minor Project Entitled “**Course management system**” Is The Outcome Of My Own Work, Is Bona-fide And Correct To The Best Of My Knowledge And This Work Has Been Carried Out Taking Care Of Diploma Ethics. The Work Presented Does Not Infringe Any Patented Work And Has Not Been Submitted To Any Other University Or Anywhere Else For The Award Of Any Degree Or Any Professional Courses.

FORWARDED BY :

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DATE : 02/12/2021

ABSTRACT

The use of the Web (World Wide Web) has had many positive effects on education.

It overcomes time and space limitations in traditional schools.

Teachers and students are now using the Web to access vast amounts of information and resources in the cyberspace.

Also, learning via the Web enables both synchronous and asynchronous communication.

Despite of many benefits of the Web, it may weaken student's motivation due to lack of face-to-face communication.

In this project, we provide a model called Web Project Learning, which is based on the principles of constructivism, to provide motivation and collaborative learning for students in the Web environment.

The model is based on the Project-Based Learning model and is revised for use on the Web. The model can also encourage the participation of parents as well as students, and be applied to any subject.

We implement our model and show that it can be applied for environmental education as an instance.

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INTRODUCTION

Normally, it is seen here that when the new session of the college starts, all the students from different trades come to the college. And their trades are like a stranger to them. So they are confused about their subjects, and it is very common.

For this, they need a source from which they can get the information which they want. In such a situation, our project will prove very beneficial for them. With this work, students will be able to easily get information about their subjects. And will be able to get other information as well. In this way they can get the information in a right way.

PURPOSE OF THE SYSTEM

The project here is for those students who are new to collage and their trades are also new to them. And sometimes they don't get the right information in this case, here the system can provide them the right information. This system has their personal identity, in which they can enter and do their work and also get new updates. in such a situation, all of them are aware of the right syllabus of the school and can get new information anytime.

Here the system is very beneficial for the teachers as well, here the teachers work as administrator, they can manage list of students and subject etc.

This is the purpose of this system

RECENT PROBLEMS

There are some problems in this system such as

- 1.running problem
- 2.platform running problem
- 3.browser problem
- 4.software problem

SOLUTION OF THESE PROBLEMS

1. Running problem: Software vendors may also fix bugs by issuing patches — small software updates that address known problems. Even if you're using the most current version of the software, there may be a more recent patch available for that version. Try something. It doesn't have to be perfect. If you see anything change as a result, that's a success. You'll improve on it soon. Then keep trying things until you've made substantial progress on the problem.

If you're in unfamiliar territory, it can help to break down the "solution" into very small increments, and try them out piece by piece. Print your data to the console before you worry about how it'll be rendered. Call a function you haven't used before with simple hardcoded arguments, and get it to run as expected before replacing them with the actual data you'll be using in your application.

This still applies if you're using someone else's code from Stack Overflow or a tutorial as an example. Don't just copy and paste the code into your editor—type out the code line by line. This has two advantages. First, you're forced to engage with the code and understand it in more detail. Second, you'll have the chance to update anything that doesn't translate

perfectly to your application. Maybe you can leave out a variable you won't use; maybe their example uses class `Animal` and you're trying to sort `Books`, so you'd replace a variable called `species` with one called `title`.

Sometimes it's harder to try out what you're doing after every line of code; that's ok. The idea is to avoid a situation where you're typing away at code for hours, only to find that what you created doesn't work and you have no idea why. Try to find a middle ground, and get to results you can see within a relatively short amount of time

2. Platform running problem: As noted in previous sections, the major problems of portability can be overcome by establishing a common set of interfaces between a software entity and all elements of its environment. This set may include many different interfaces of various types and levels. These interfaces may take many forms: a programming language, an API for system services, a set of control codes for an output device. Commonality of the interfaces requires that each interface be made to look the same from the viewpoint of the software being developed, in spite of variations in the components on the other side. This goal may be achieved by

many different strategies. Some of these strategies may successfully establish a common interface during initial development, while others will require further effort during porting.

3. Browser problem : Browser problems can be a sign of malware, though it's certainly not the most common cause of them. Start by making sure your security software and anti-malware tools are up to date, and then run full scans. If malware is found, make sure it's cleaned off. If that makes your browser problems go away, then of course you're done.

Google automatically install new Add-Ons without advising the end user about it, so the "No Add-Ons" mode is a really important question for Chrome related issues.

There is a bug reported in ([JRA-31774](#)) where in both Chrome and Firefox, there is a JQL query length limitation of 2.000 characters, but IE doesn't have such limitation. So sometimes an user creates a filter with more than 2.000 characters in IE and later trying to use this same filter in Chrome or Firefox errors are thrown because of the length limitation

4. Software Problem: Software problems can stem from a conflict with other programs or simply from difficulties the software encountered when starting up. Shutting the program down and restarting it can sometimes resolve these issues Undo any recent changes to your computer's settings, and try launching the software again. For example, the Windows Control Panel includes an option to "Set Program Access and Defaults," which allows you to disable access to certain applications. If you accidentally disable access to a program here, the program may not run.

ANALYSIS

INTRODUCTION TO ANALYSIS

In systems engineering and software engineering, requirements analysis focuses on the tasks that determine the needs or conditions to meet the new or altered product or project, taking account of the possibly conflicting requirements of the various stakeholders, analyzing, documenting, validating and managing software or system requirements.

Requirements analysis is critical to the success or failure of a systems or software project. The requirements should be documented, actionable, measurable, testable, traceable, related to identified business needs or opportunities, and defined to a level of detail sufficient for system design.

Software analysis and design includes all activities, which help the transformation of requirement specification into implementation. Requirement specifications specify all functional and non-functional expectations from the software. These requirement specifications come in the shape of human readable and understandable documents, to which a computer has nothing to do.

Software analysis and design is the intermediate stage, which helps human-readable requirements to be transformed into actual code.

Analysis - Course Management Systems (CMS) have been an integral part of higher education teaching and learning since the late 1990s. The rise of the CMS provided the promise of efficient classroom management, where resources could easily be distributed and a slew of additional online resources would ease the burden of classroom management.

The CMS has been a great success in universities and colleges worldwide. Research has been conducted on CMS effectiveness and usage. However, much of that research has been dedicated to understanding Early and Middle Adopters of the technology, ignoring Late Adopters. Since the late 1990s the CMS has gone relatively unchanged, allowing for the saturation of a user base of higher education instructors. In 2011, the promise of a transformation in higher education technology, including the CMS, began.

New systems are being built and distributed at a rapid pace. Research has documented how Early Adopters will interact with these systems; little is known about the impact on Late Adopters.

This research project sought to better understand the current adopters of an established CMS in a higher education institution, why and how these users adopt and interact with the system, and how they interact with the system over their

first session of instruction. Analyzed were the usage traits of sixteen apparent Late Adopters of an established CMS via survey, interview and course site analysis. Findings suggest that not all new users of an established CMS have traits of Everett Rogers' description of Late Adopters, users have similar traits and tactics during their first quarter of instruction, most users are influenced and rely on non-educational technologies for assistance, and these users were not an additional strain on support services.

Study Of System - Learning Management Systems are becoming more popular among all institutions of higher learning. One problem all institutions face is the selection of appropriate solution fit in to organization's requirement. While selecting a system the organization's have to focus on all stakeholders rather than focusing just on the features of the system.

Many at times the institutions focus on various utilities available in these systems than the user aspects of the system. This lead to non-usability of such system. Many systems fail irrespective of possessing advanced features due to the non-acceptance among the users.

Many at times they are not because of the poor design but the failure of team spirit in some organization's. The present case is a study on the experience of implementation of such system in an institute of higher learning.

There is a mismatch between the motivation behind introduction of Learning Management System and the motivation of the users to use it for manifesting their power over the supportive staffs ie. the system administrators.

Input & Output - The generation of students born with digital technology brings with them a significantly different approach to learning. They are used to having access to multiple and instantaneous sources of information, multitasking and being socially connected to peers through mobile devices. The combination of mobile technologies and the new generation's digitally-enhanced' cognitive and social skills will need new solutions in the current concept of Learning.

One potential solution is mobile learning. M learning is the exploitation of ubiquitous handheld technologies, together with wireless and mobile phone networks, to facilitate, support, enhance and extend the reach of teaching and learning. It offers enormous potential as a tool to be used in situations where learners are geographically dispersed, to promote collaborative learning, to engage learners with content, as an alternative to books or computers, as an alternative to attending campus lectures and for "just-in-time"

delivery of information. With mobile technology, we can “push” and “pull” information and deliver learning to any one at any time and at any place.

It provides learning on-the-go or just-in-time learning. The significance of education, especially in developing countries, is increasing because of progressing pressure to catch up with the developed world regarding, for example, global competitiveness.

Some of the areas of improvement in developing countries include: provision of standardized computer-based tests, qualified facilitators, adequate learning environment, standard textbooks, digital library, computerized student assessment, and sporting facilities, among others.

It is obvious that computers have significantly increased the range, sophistication, and complexity of possible classroom activities. Computer-based technology has also brought with it many new challenges for the teacher who seeks to determine what it has to offer and how that should be delivered to students. The incorporation of information technology in education has brought so many positive

changes. Today, more academic systems are embracing technology, because it makes teaching more effective and aids in practical learning.

Students are embracing it because in the future, most of the jobs will be technologically based. With time, everyone will see the significance of information technology in education.

This work examines the use of technology in teaching and learning. It also designs and implements an online course management system that incorporates instant search algorithm, evaluations and assessments and a reliable application portal for teachers, learners and parents.

Since the dawn of the 21st century, technology has crept its way into learning and teaching environments. As more technological advancements are made, then there is dire need for increased literacy levels on the use of this technology.

Earlier, technology in education was a debatable topic amongst the society. Everyone had their own views on modernizing education and making it technology aided. There were a huge number of positives and negatives to education technology. But, gradually as technology was embraced by

the educational institutions, they realized the importance of technology in education.

Its positives outnumbered the negatives and now, with technology, education has taken a whole new meaning that it leaves us with no doubt that our educational system has been transformed owing to the ever-advancing technology.

Technology and education are a great combination if used together with a right reason and vision.

Process - A Course Management Software System is made to optimize the efficiency and effectiveness of your instructor-led training.

Some of the common features that can help you do this are:

- Logistics and resource management – How do I organize sessions and assign resources in the most cost-effective way?
- Course scheduling – How do I create and quickly modify the optimal training schedule to fit everyone's agenda?
- Registration administration – How do I keep track of registration confirmations, reminder emails, and important data for thousands of trainees, avoiding mistakes or delays?
- Instructor-Led Training Financials – How do I track costs, forecast budgets and monitor profitability details for each session?

- Reporting and business intelligence – How do I extract meaningful information to assess the success of my training activity and make the right decisions in real time?
- Sales – (for commercial training companies and extended enterprise) – How do I streamline the whole order to invoice process to serve my clients in a timely and reliable manner?

While some Course Management Systems might also include front-end portals, a Course Management Software System is at heart back-office software.

FEASIBILITY REPORT

3.1 TECHNICAL FEASIBILITY

1. Executive Summary: In addition, a CMS is typically integrated with other databases in the university so that students enrolled in a particular course are automatically registered in the CMS as participants in that course.

The decision to use a CMS in a traditional face-to-face course has implications for course design that often go unnoticed by instructors in their initial use of such systems. This module lists technical and pedagogical tips that instructors should consider as they place materials into a CMS. While it is intended primarily for instructors who are using a CMS for the first time, instructors who have already used a CMS in other courses might benefit by using these tips as a checklist.

2. Introduction: A course management system (CMS) is a collection of software tools providing an online environment for course interactions. A CMS typically includes a variety of online tools and environments, such as

- An area for faculty posting of class materials such as course syllabus and handouts
- An area for student posting of papers and other assignments
- A gradebook where faculty can record grades and each student can view his or her grades
- An integrated email tool allowing participants to send announcement email messages to the entire class or to a subset of the entire class
- A chat tool allowing synchronous communication among class participants
- A threaded discussion board allowing asynchronous communication among participants

3. Background: The CMS will likely not only have different modules, but also allow you to select which of these modules you'll be using in the class. If you're not going to use a particular module (e.g., if you decide not to use online chat during the course), you should turn that module off so that it doesn't distract students from the modules you plan to use. (If you decide later to use a module that you've turned off, you can turn it on then.)

You'll likely be posting content to your site by inputting text into text boxes on a web page. If you're inputting text that's longer than a few sentences, you should type it first in a word processor and then copy and paste it into the CMS text box. Web browsers are typically less stable than word processors, and word processors often have auto-save settings that save text periodically as you type. If you develop the content in a word processor, you're less likely to lose everything if your computer crashes or the server drops a connection. If you save the file on your computer after pasting the content into the web browser, you have your own copy on your computer.

4. Purpose: Providing opportunities to develop and refine foundational teaching skills through workshops, seminars, and individual consultations;

Consulting with educators as they adopt and evaluate new teaching practices as part of their continuing professional development;

Fostering campus conversations on teaching and learning that are informed by national and international higher education developments, as well as local issues and priorities; and

Identifying, sharing, and advocating for research-based practices in university teaching and the resources that support them.

5. Research: The following article is reprinted with permission of the author and of Focus on Faculty (Fall 2002), a publication of the Brigham Young University Faculty Center, ed. D. Lynn Sorenson.

Michael Theall has twenty-six years of experience as a faculty member and as a professional in instructional design, development and evaluation. He has founded faculty centers for teaching, learning and evaluation at three universities: the University of Illinois, the University of Alabama, and Youngstown State University (OH). Theall and colleague Jennifer Franklin recently received a career achievement award from the American Education Research Association (AERA). They are authors of "The Student Ratings Debate," a monograph for New Directions for Institutional Research (2001), among numerous other research publications.

6. Alternative Solution:

Versatility: Multiple choice test items can be written to assess various levels of learning outcomes, from basic recall to application, analysis, and evaluation. Because students are choosing from a set of potential answers, however, there are obvious limits on what can be tested with multiple choice items. For example, they are not an effective way to test students' ability to organize thoughts or articulate explanations or creative ideas.

Reliability: Reliability is defined as the degree to which a test consistently measures a learning outcome. Multiple choice test items are less susceptible to guessing than true/false questions, making them a more reliable means of assessment. The reliability is enhanced when the number of MC items focused on a single learning objective is increased. In addition, the objective scoring associated with multiple choice test items frees them from problems with scorer inconsistency that can plague scoring of essay questions.

Validity: Validity is the degree to which a test measures the learning outcomes it purports to measure. Because students can typically answer a multiple choice item much more quickly than an essay question, tests based on multiple choice items can typically focus on a relatively broad representation of course material, thus increasing the validity of the assessment.

7. Recommendations: For many of us in academia, June brings relatively empty calendars and full reading lists. I love hearing what friends and colleagues are planning on reading during the summer and what they'd suggest for others' lists, so I again asked my Center for Teaching colleagues for their recommendations. If you are one of the many faculty or staff at Vanderbilt focusing on immersion initiatives, community engagement, or teaching for global citizenship, one of our newest books at the CFT library might be a useful tool in your work. The book is *Community-Based Global Learning: The Theory and Practice of Ethical Engagement at Home and Abroad* co-authored by Eric Hartman, Richard Kiely, Christopher Boettcher, and Jessica Fredric's and will be available soon in the CFT library. This volume usefully threads multiple streams of scholarship together with real-world cases and examples of classroom practice. The effect of this multi-pronged approach is that the book is at once thoroughly grounded in research while also being accessible to practitioners.

8. Conclusion: Systems such as Blackboard, Canvas, and Desire2Learn are becoming a vital part of university classrooms in the 21st Century. This guide seeks to bring clarity about the definitions, use, and possibilities of such systems for both instructors and students. After differentiating the definitions and scope of Learning and Course Management Systems (LMS/CMS), the guide explores how users on Vanderbilt's campus were employing the current system during the 2015-2016 school year based on the results of a campus-wide survey held in the spring of that year. The guide then ends with a list of best practices for classroom technology integration and shows how better integration with an LMS can further learning goals.

OPERATIONAL FEASIBILITY

3.2 OPERATIONAL FEASIBILITY

Process: Training of the end users is one of the most important steps for a successful system implementation. The end users should be utilized during parallel testing, so training will need to be rolled out prior to that. Getting the end users involved at this point is also a good way to get them excited about the system, as many of them may not have been involved with the project prior to training. Their assistance in parallel testing will help them prepare for when the system goes live. End users are good at using the system in more of a "real world" situation and can judge when process flows are not working. When everyone involved with using the system is included in the training, they will feel more confident about using it as they go into production and the user community will view the implementation as successful. The system may have been tested for functionality and all customizations are working accurately, but if the end users do not know how to use it or feel comfortable with it, then the launch of the new system will be viewed as unsuccessful. Therefore, the timing of the end user training is critical and must be planned for and implemented prior to the start of the parallel test phase to ensure a successful implementation. There are two possible solutions for training. The first is to use project team members to develop and deliver the end user training and the second is

to identify a training partner to support the development and delivery of end user training, including a train the trainer component. Both options will be fully explored during the next phase of the project.

Evaluation: An organizational assessment is a systematic process for obtaining valid information about the performance of an organization and the factors that affect performance. It differs from other types of evaluations because the assessment focuses on the organization as the primary unit of analysis.

Organizations are constantly trying to adapt, survive, perform and influence. However, they are not always successful. To better understand what they can or should change to improve their ability to perform, organizations can conduct organizational assessments. This diagnostic tool can help organizations obtain useful data on their performance, identify important factors that aid or impede their achievement of results, and situate themselves with respect to competitors. Interestingly, the demand for such evaluations is gaining ground. Donors are increasingly trying to deepen their understanding of the performance of organizations which they fund (e.g., government ministries, International Financial Institutions and other multilateral organizations,

NGOs, as well as research institutions) not only to determine the contributions of these organizations to development results, but also to better grasp the capacities these organizations have in place to support the achievement of results.

Resistance: Much resistance to change can be avoided if effective change management is applied on the project from the very beginning. While resistance is the normal human reaction in times of change, good change management can mitigate much of this resistance. Change management is not just a tool for managing resistance when it occurs; it is most effective as a tool for activating and engaging employees in a change. Capturing and leveraging the passion and positive emotion surrounding a change can many times prevent resistance from occurring—this is the power of utilizing structured change management from the initiation of a project.

Participants in Prosci's 2013 benchmarking study commented on the fraction of resistance they experienced from employees and managers that they felt could have been avoided with effective change management (see below). Participants cited that much of the resistance they encountered could have been avoided if they applied solid change management

practices and principles. The moral here is: if you do change management right the first time, you can prevent much of the resistance from ever occurring.

Implementation – A project is successful when it achieves its objectives and meets or exceeds the expectations of the stakeholders. But who are the stakeholders? Stakeholders are individuals who either care about or have a vested interest in your project. They are the people who are actively involved with the work of the project or have something to either gain or lose as a result of the project. When you manage a project to add lanes to a highway, motorists are stakeholders who are positively affected. However, you negatively affect residents who live near the highway during your project (with construction noise) and after your project with far-reaching implications (increased traffic noise and pollution).

shows a sample of the project environment featuring the different kinds of stakeholders involved on a typical project. A study of this diagram confronts us with a couple of interesting facts.

First, the number of stakeholders that project managers must deal with ensures that they will have a complex job guiding their project through the lifecycle. Problems with any of these members can derail the project.

Second, the diagram shows that project managers have to deal with people external to the organization as well as the internal environment, certainly more complex than what a manager in an internal environment faces. For example, suppliers who are late in delivering crucial parts may blow the project schedule. To compound the problem, project managers generally have little or no direct control over any of these individuals.

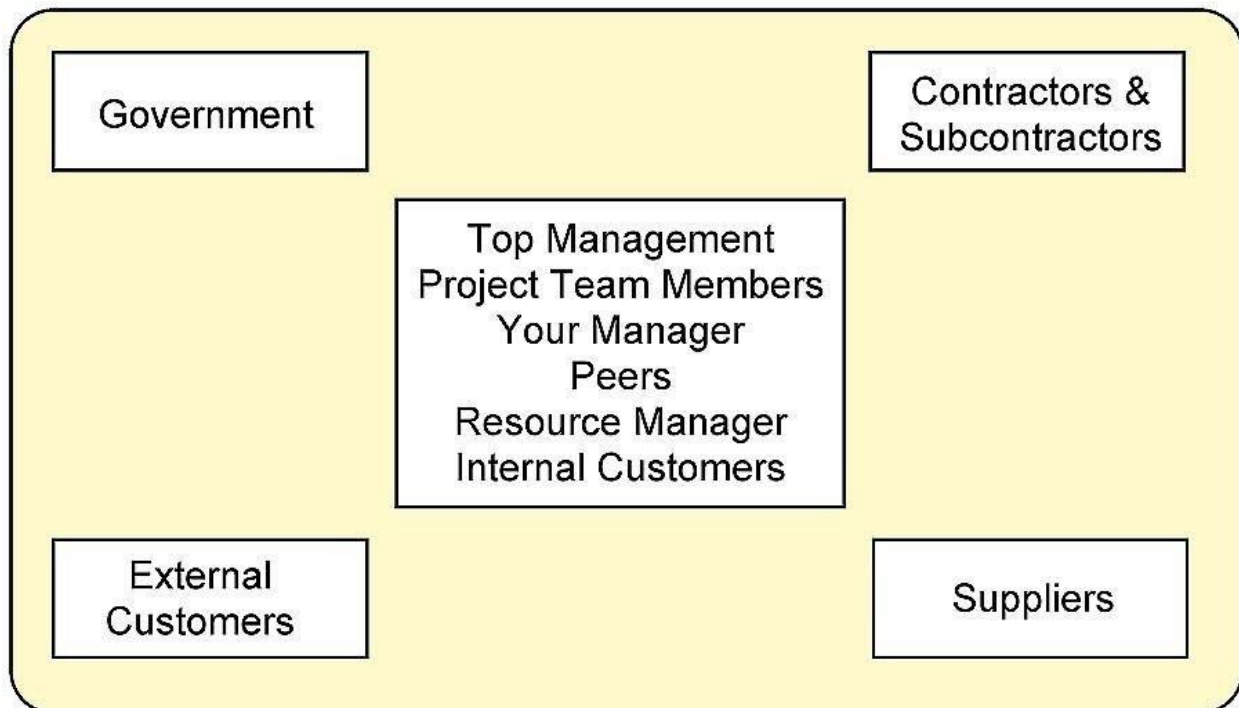


Figure : 1.1

In-House Strategies: Going to a space where you are surrounded by people, may add that extra pressure or motivation to work. A [study](#) done by Henry Allport suggested that productivity for individuals increased when they were surrounded by other people. You, however, may not agree and find that you could get easily distracted with other people. Some people like to be alone when they are working. Different from 'ritualizing your work environment', personalizing your space includes placing familiar objects around you, to increase your connection to your work and work environment.

If you feel alienated from what you are doing or simply want to improve the comfort of your work environment, bring a picture frame, change your screensaver, and make your work environment feel more like your own.

Whether it is a family portrait on your desk or a funny screensaver of your pet, give your work environment that personal touch.

Workplace Strategy is: "The dynamic alignment of an organization's work patterns with the work environment to enable peak performance and reduce costs." ¹ In practice, a

workplace strategy is “a systematic approach for improving the effectiveness and efficiency of how work space is used by changing the way work space is configured.”

- Reduce Real Estate and Facilities Costs
- Improve work performance
- Increase organizational agility and flexibility
- Improve communication & collaboration
- Increase creativity & innovation
- Increase employee satisfaction
- Improve employee work-life balance
- Improve brand, image identity and culture
- Attract and retain the best talent

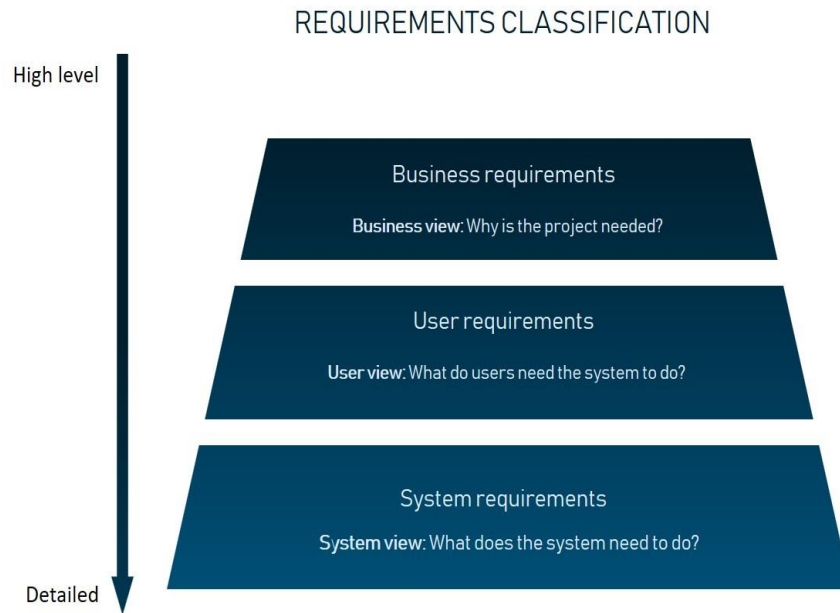
**SOFTWARE
REQUIREMENT
SPECIFICATION**

4.1 FUNCTIONAL REQUIREMENT: Functional requirements are product features or functions that developers must implement to enable users to accomplish their tasks. So, it's important to make them clear both for the development team and the stakeholders. Generally, functional requirements describe system behavior under specific conditions. For instance:

A search feature allows a user to hunt among various invoices if they want to credit an issued invoice.

Here's another simple example: As a guest, I want a sofa that I can sleep on overnight.

Requirements are usually written in text, especially for [Agile-driven projects](#). However, they may also be visuals. Here are the most common formats and documents:



Software requirements specification document

Use cases

User stories

Work Breakdown Structure (WBS) (functional decomposition)

Prototypes

Models and diagrams

All the software projects include the information boundaries that describe the product and project goals. These boundaries are drawn in the project requirements and specifications. The

value of creating a software requirement specifications is in the optimization of the development process. Software requirement specifications answer all developer's questions about the product that are required to start the work. The functional specification is approved by the client and ensures that developers are building what the customer wants.

4.2 PERFORMANCE REQUIREMENT : In order to assess the performance of a system the following must be clearly specified:

- Response Time
 - Workload
 - Scalability
 - Platform
- Response Time : Supplier Y warrants that in supporting 300,000 customers it shall ensure that performance shall not fall below the following level:

95% of ALL visible pages for “normal” customers respond in 8 seconds or less, including infrastructure, excluding backends.

Measurement Points:

The response times will be measured using HP Load runner (or similar tool) located behind the firewall and in front of the web servers. The timer will measure the time from the request for a page to when the last bit required to render the page is returned. Backend response times will be measured using the application server log files.

Definitions -

Backends are third party products and information providers such as Reuters share quotes not supplied by Supplier.

For the purpose of measuring the response time the performance tests should not exceed 60% CPU utilization during the busy hour

Visible Page shall mean a web page visible (non-blank) as seen by a customer. all redirect page times will be included in the response time of the page it redirects to Y

The test workload will be based on a normal business day, as defined in the workload section below, executed in the release acceptance test environment.

If the Supplier Y Software fails the response time criteria as set out above, then Supplier Y shall be liable to pay to Customer Z of the following amounts (depending on the level of failure)

Software Response Times for failure to meet 95% of all pages in less than 8 seconds

Score	0	1	2	3	4	5
Response Time expressed in seconds	8	8.01-9	9.01-10	10.01-11	11.01-14	14.01 and Over
Cumulative Total Compensation	£0	£8,000	£15,000	£45,000	£90,000	£180,000

Ref No	Description	Pages	Daily Total
1	Portal	Login, Portal 50% Exit	2500
2	Transaction History (Statement)	Login, Portal, 50%Balances, Statement, 70% D Stat,50% Exit	500
3	Bank Viewer	Login, Portal, 50%Balances, Statement, 70% D Stat, balances,charges,balances,so list, dd list, Int Trf, Bal, portal,50% Exit	700
4	News Reader	Login, Portal, 50% Bal, Stat, 70% D Stat, Intra Day, News, Portal, News, Portal, BV add, 50% Exit	250
5	Portfolio edit	Login, Portal, Portfolio View, Portal Pref, Portfolio View, Add Shares, View Share, Share Quantity, Portfolio View, 50% Exit	100
6	OO Payment	Login, Portal, 50% Balances, Statement, 70% D Stat, OO List, New OO, New Payee, Confirm Payee, OO Details, Confirm OO, OO List, Payee List, Click Payee, Delete Payee, confirm Payee, 50% exit	245
7	Assign MM Category	Login, Portal, 50% Balances, Statement, 70% D Stats, GoMM, CreateCategoty, ConfirmCatagory, Balances, Statement, Click Item, Statement, GoMM, Click Report, Report, 50% Exit	105
8	Detail Bank Browser	Login, Portal, 50%Balances, Statement, 70% D Stats, In Progress, Portal, Alerts, View Alert, Portal, 50% Exit	100
Total			4500

**SELECTED
SOFTWARE**

5.1 INTRODUCTION TO NETBEANS: Most developers recognize the NetBeans IDE as the original free Java IDE. It is that, and much more! The NetBeans IDE provides support for several languages (PHP, JavaFX, C/C++, JavaScript, etc.) and frameworks.

NetBeans is an open-source project dedicated to providing rock solid software development products (the NetBeans IDE and the NetBeans Platform) that address the needs of developers, users and the businesses who rely on NetBeans as a basis for their products; particularly, to enable them to develop these products quickly, efficiently and easily by leveraging the strengths of the Java platform and other relevant industry standards.



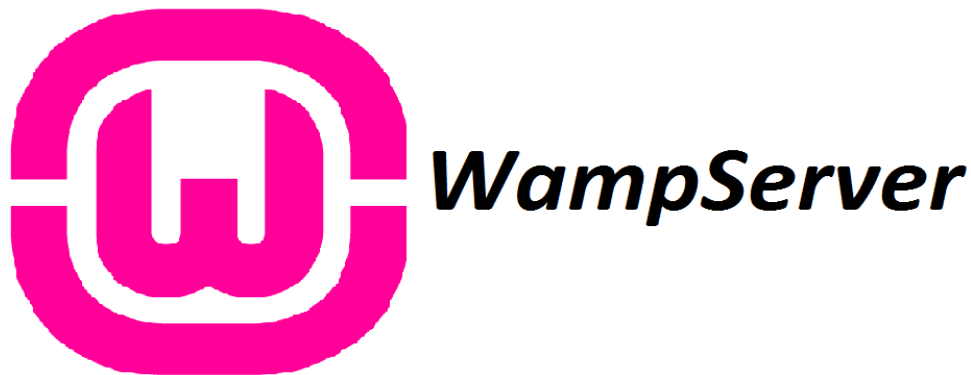
In June 2000, NetBeans was made open source by Sun Microsystems, which remained the project sponsor until January 2010 when Sun Microsystems became a subsidiary of Oracle. Please see our History section for more information.

The two base products, the NetBeans IDE and NetBeans Platform, are free for commercial and non-commercial use. The [source code](#) to both is available to anyone to reuse as they see fit, within the terms of use. The [legal section](#) contains information regarding licensing, copyright issues, privacy policy and terms of use.

The NetBeans project is also a vibrant [community](#) in which people from across the globe can ask questions, give advice, [contribute](#) and ultimately share in the success of our products. On the [NetBeans mailing lists and forums](#), you will find posts from students, developers from [top companies](#), and individuals looking to expand their skills. With over 18 million downloads of the NetBeans IDE to date, and over 800,000 [participating](#) developers, the NetBeans project is thriving and continues to grow, thanks to the individuals and [partner companies](#). To be a part of the community, simply [register for free](#).

Wamp Server: refers to a software stack for the Microsoft Windows operating system, created by Romain Bourdon and consisting of the Apache web server, OpenSSL for SSL support, MySQL database and PHP programming language.

Stands for "Windows, Apache, MySQL, and PHP." WAMP is a variation of LAMP for Windows systems and is often installed as a software bundle (Apache, MySQL, and PHP). It is often used for web development and internal testing, but may also be used to serve live websites.



The most important part of the WAMP package is Apache (or "Apache HTTP Server") which is used run the web server within Windows. By running a local Apache web server on a Windows machine, a web developer can test webpages in a web browser without publishing them live on the Internet.

WAMP also includes MySQL and PHP, which are two of the most common technologies used for creating dynamic websites. MySQL is a high-speed database, while PHP is a

scripting language that can be used to access data from the database. By installing these two components locally, a developer can build and test a dynamic website before publishing it to a public web server.

While Apache, MySQL, and PHP are open source components that can be installed individually, they are usually installed together. One popular package is called "WampServer" which provides a user-friendly way to install and configure the "AMP" components on Windows.

DESIGN

6.1 INTRODUCTION : A Course Management System (CMS) at its simplest, is a set of tools that provides instructors with a framework that allows for the creation, teaching, and management of online course content. It allows for the sharing of information and interactions that are core to distance education. The CMS helps with course administration, core aspects of teaching, and communication. The CMS used by Ohio State is called Carmen.

After you have activated your Ohio State username, you will be able to access [Carmen](#). Carmen is a web based program so you can access it from anywhere that you can obtain internet access. Carmen is also available 24/7, making it convenient to access program materials any time.

Once you have logged in you will be able to find a specific program course containing content information and materials. If you have trouble logging in to Carmen, visit this [help website](#) for assistance.

To ensure satisfaction with your Carmen courses, it is essential that you use a fully supported browser and meet other basic system requirements. Browser add-ins and toolbars can also affect Carmen functionality. For more information on system requirement, visit the [supported browsers and systems website](#).

6.2 NORMALIZATION : Normalization is the branch of relational theory that provides design insights. It is the process of determining how much redundancy exists in a table. The goals of normalization are to:

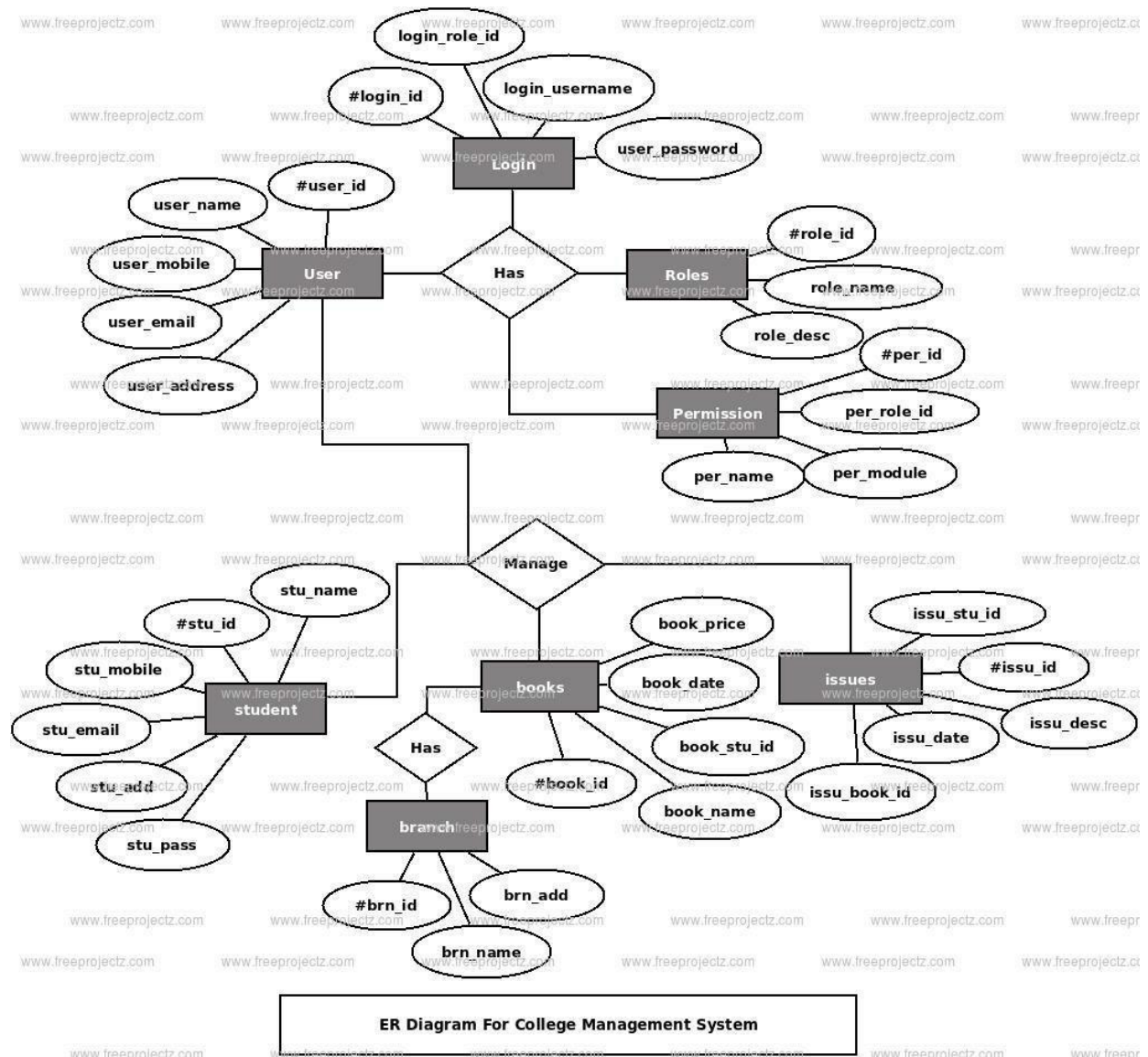
- Be able to characterize the level of redundancy in a relational schema
- Provide mechanisms for transforming schemas in order to remove redundancy

Normalization theory draws heavily on the theory of functional dependencies. Normalization theory defines six normal forms (NF). Each normal form involves a set of dependency properties that a schema must satisfy and each normal form gives guarantees about the presence and/or absence of update anomalies. This means that higher normal forms have less redundancy, and as a result, fewer update problems.

All the tables in any database can be in one of the normal forms we will discuss next. Ideally we only want minimal redundancy for PK to FK. Everything else should be derived from other tables. There are six normal forms, but we will only look at the first four, which are:

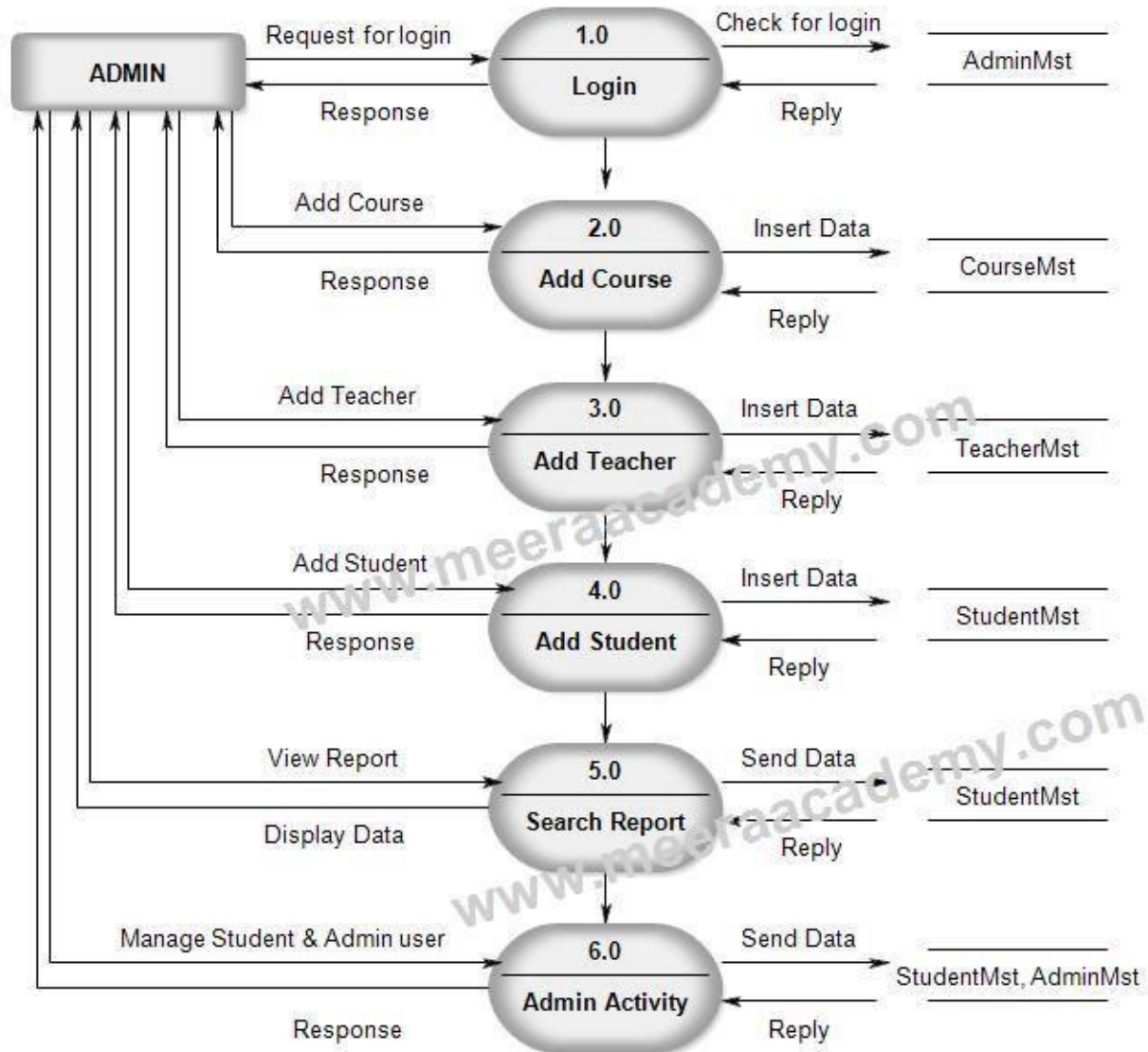
- First normal form (1NF)
- Second normal form (2NF)
- Third normal form (3NF)
- Boyce-Codd normal form (BCNF)

6.3 E-R DIAGRAMS



6.4 DATA FLOW DIAGRAMS :

1st Level Admin Side DFD



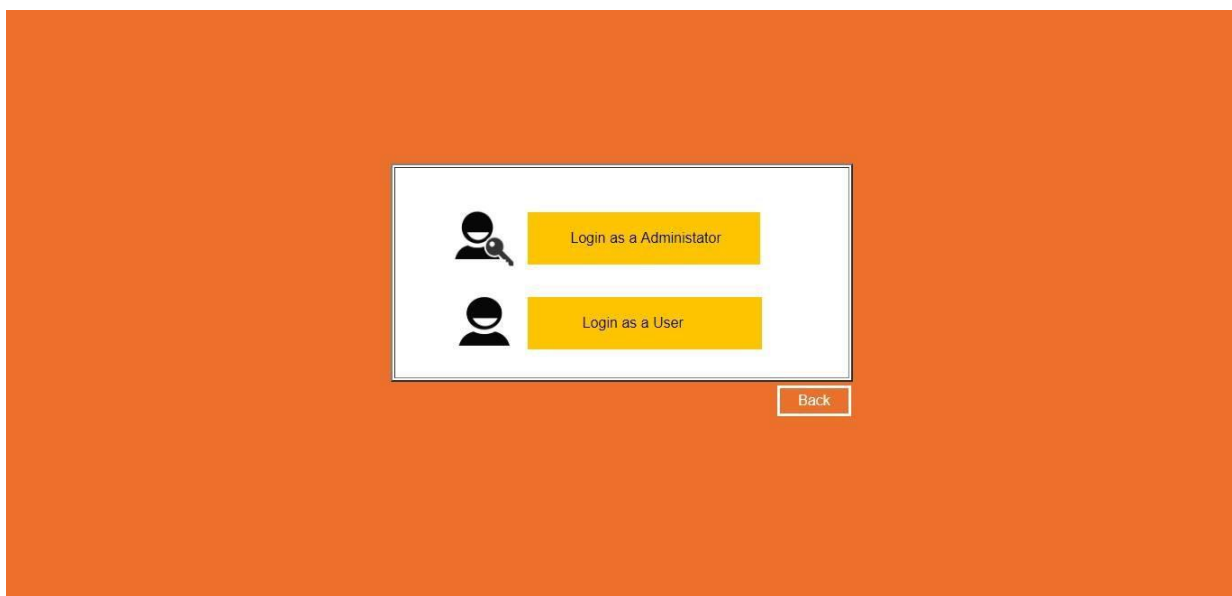
OUTPUT SCREENS

1. Home Page –

This is the home page of concept finder when we click on on the sign up button



then the output is –

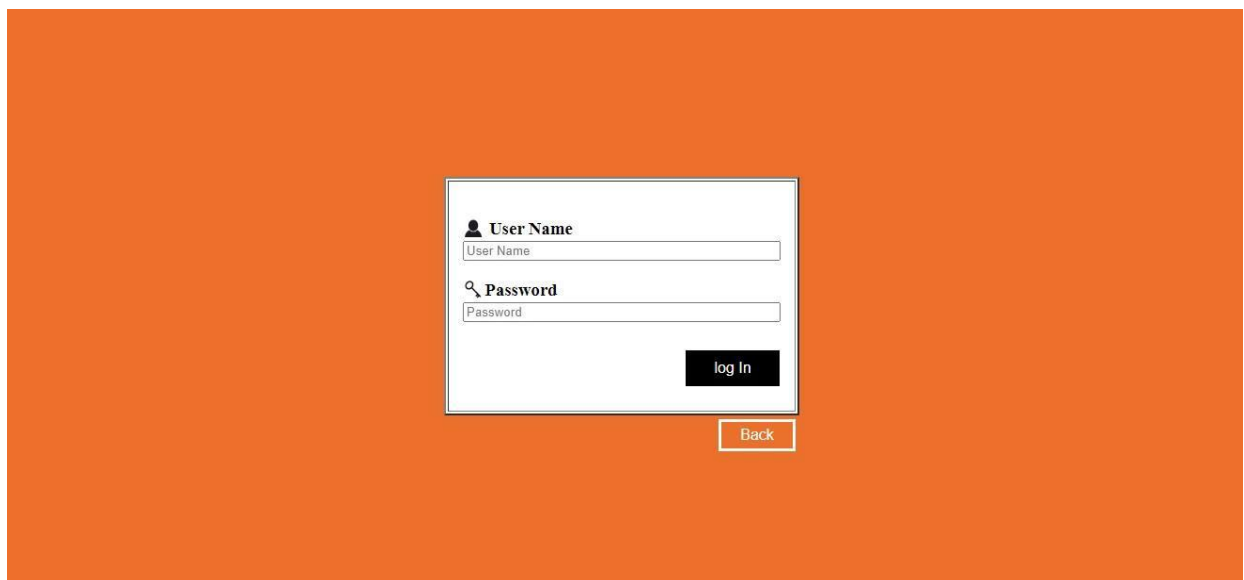


2. Sign up Page –

This is sign up page click on login as administrator button



Then the output is –



After fill user name and password click on login button then the output is –



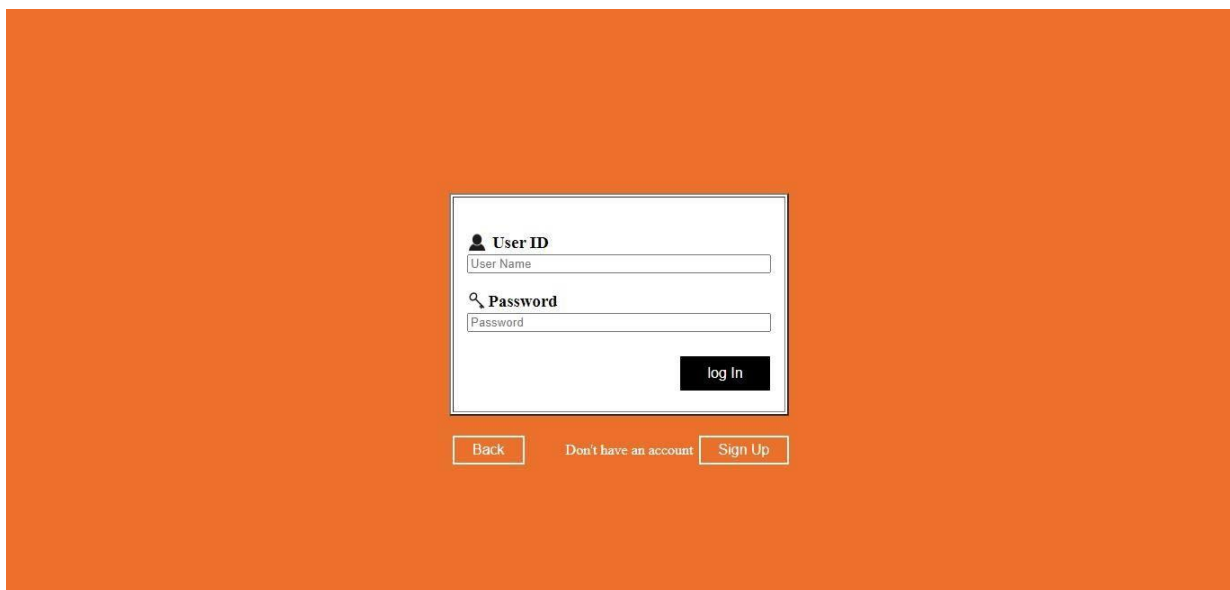
Here we can choose varies type of option that we want.
Or do operation with any one option.

3. Sign up Page –

On the other side when we click on the login as user button



Then the output is –



After fill user ID and password click on login button then the output is –



User can choose any option to this window. which they want. If a new user wants to use this system then he can create his profile by clicking sign up button.

TESTING AND IMPLIMENTATIONS

8.1 Introduction - Implementation is the process of putting an action for the formulated plan. Before we implement, the plan should have been completed and our objectives should be clear.

Testing each one of those actions formulated in the plan is said to be implementation testing.

After unit testing is completed, developer performs integration testing. It is the process of verifying the interfaces and interaction between modules. While integrating, there are lots of techniques used by developers and one of them is the incremental approach.

In Incremental integration testing, the developers integrate the modules one by one using stubs or drivers to uncover the defects. This approach is known as incremental integration testing. To the contrary, big bang is one other integration testing technique, where all the modules are integrated in one shot.

8.2 STRATEGIC APPROACH OF TESTING –

1. **Manual Testing:** Manual testing includes testing A software manually, i.e., without using any automated tool or any script. In this type, the tester takes over the role of an end-user and tests the software to identify any unexpected behavior or bug. There are different stages for manual testing such as unit testing, integration testing, system testing, and user acceptance testing.

Testers use test plans, test cases, or test scenarios to test software to ensure the completeness of testing. Manual testing also includes exploratory testing, as testers explore the software to identify errors in it.

2. **Automation Testing:** Automation testing, which is also known as Test Automation, is when the tester writes scripts and uses Another software to test the product. This process involves automation of a manual process. Automation Testing is used to re-run the test scenarios that were performed manually, quickly, and repeatedly.

Apart from regression testing, automation testing is also used to test the application from load, performance, and stress point of view. It increases the test coverage, improves accuracy, and saves time and money in testing.

8.3 UNIT TESTING –

- Reduces Defects in the Newly developed features or reduces bugs when changing the existing functionality.
- Reduces Cost of Testing as defects are captured in very early phase.
- Improves design and allows better refactoring of code.

Unit Tests, when integrated with build gives the quality of the build as well

SECURITY

9.1 Introduction – course Management Systems, especially in the corporate training sector, usually contain sensitive information that we absolutely want to keep safe. Learn what are the main LMS security issues and how to solve them.

Course Management Systems, especially in the corporate training sector, usually contain sensitive information that we absolutely want to keep safe. For example we wouldn't like to share all of our employee data or some of our production secrets with external people, especially if working for a competitor.

Imagine your system as a great public library, filled with documents and people. Despite the advent of ebooks and smartphones, public libraries are still frequented by many people every day that come, consult books, and leave. Your competitors could sneak inside or steal someone's library ID to enter your system and steal or modify some of your books.

In order to fight these kinds of cyber threats, many companies have started working on mapping and finding solutions to stop it. The first step is to understand what kind of vulnerabilities your system has, so let's start by highlighting the most delicate spots of your CMS.

9.2 Security -

1 First contact

When someone wants to access your content, at a certain moment s/he will have to login into your portal; it's important to make sure that it's extremely complicated to steal an ID or hack your access point.

2 Verification

Getting access to your platform should be just a first step. Infact we want to make sure that the user logging in the LMS is exactly who he or she claims to be, and that she didn't steal someone else's credentials.

3 Segmentation

If you ever read Harry Potter or watched the movies, you will remember that in the Hogwarts library (as in many other libraries) there are a few sections with restricted access. Therefore it's important that only people that have the right credentials can access this kind of data.

4 Integrity

You most certainly don't want people to write with a pen on your books right? To keep your system safe, you will have to make sure that only the people intended to do so can modify the content of your LMS.

CMS vendors need to take these kinds of threats seriously. Docebo Learning Management System for example, has just released two new Integration Apps with LDAP and SAML, which are two industry standards for safe integration between different software.

The LDAP (Lightweight Directory Access Protocol) Integration App allows you to import your LDAP user base into your Docebo CMS and keep them in sync. Users will be able to login into the LMS with the same username and password they have in the LDAP.

The SAML Integration App allows users to use AD FS to Single Sign On between their Active Directory and Docebo LMS. By activating this App, users can log into their computer and, within the active session, sign into their e-learning platform.

For those who don't know how these two standards work, here I will try to give you a brief explanation as to how this can make your system more secure.

Let's use again the public library analogy. When you try to get a book from the public library you are usually asked for a library card or some kind of credentials. When you give your ID to the librarian this is the equivalent of creating a local

LDAP token. The librarian can be considered your SAML standard, as s/he is the person that brings your request to the central LDAP server (the library computer with all the registered users of the library). Once the central LDAP server accepts your LDAP local token (aka your ID card), you're granted permission to read the book.

CONCLUSION

Recent developments in computer network technology have provided teachers with powerful tools to facilitate education inside and outside the classroom. Course Management Systems (CMS) provide a web-based infrastructure for digitized information sharing among teachers and students. A trial implementation of the Moodle open-source CMS in support of English language courses at three Japanese universities is described and analyzed, and the advantages and disadvantages of CMSs as an aid to foreign language teaching are discussed. It is concluded that CMSs provide a highly effective tool for foreign language teaching, but require a significant investment of time and money.

The use of tools to facilitate teaching is not new. For centuries educators have used blackboards, slates, charts, flash cards, books, and other teaching aids. The advent of electricity brought new tools such as slide projectors, phonographs, mimeographs, and movie projectors. In more recent times, tape recording technology has enabled presentation of audio and video content and photocopiers have facilitated bulk copying of printed text.

In the 1980s, educators were quick to adopt use of the nascent Internet. Electronic mail provided a speedy and convenient way to link teachers and students via mailing lists, and File Transfer Protocol (FTP) permitted rapid exchange of data documents.

In the 1990s the growth of the Worldwide Web (WWW) furnished teachers and students with an even more

efficient way to broadcast announcements and course materials. Web-based bulletin boards facilitated teacher-student interaction.

Course Management Systems (CMS) are software packages that bring together numerous Internet tools and allow them to be accessed via a simple and convenient user interface. Such systems are also referred to as Virtual Learning Environments (VLE) or Learning Management Systems (LMS).

A typical CMS will provide such tools as: user registration and authentication, creation of static web pages, file exchange, tests and surveys, student grading, journals, wikis, photo galleries, chat rooms.

In the context of a CMS, these tools are commonly referred to as 'modules' and a well-designed CMS will integrate several modules behind a seamless user interface.

An advanced CMS can provide most of the elements necessary for distance learning. More commonly, it can be used to support traditional classroom courses.

In either case, a CMS requires a relatively sophisticated environment to run efficiently. It needs, for example, to be installed on a web server with access to a relational database. Such an installation demands hardware, software, and technical resources, which in turn necessitate a significant financial outlay.

For this reason, most CMS installations are on an institutional level, in schools, colleges, and universities. Where an institution already maintains a computer

network infrastructure with trained technical support staff, the major expense will be the licensing of the CMS software. With commercial packages such as Blackboard or WebCT this recurring expense can be significant.

Many educational institutions, unfortunately, have neither the infrastructure nor the budget to install and maintain a CMS. In the absence of a computer network infrastructure, one alternative is web hosting, in which the CMS developer or a commercial ISP will install and maintain the CMS for a charge. However, where budgetary constraints are the main factor precluding the installation of a CMS, there exist free open source CMS packages such as Moodle and domain and the onus of installation and maintenance will typically fall on individual teachers.

The present study describes one such individual implementation of the Moodle CMS in support of English-language courses at three Japanese universities.

FUTURE ENHANCEMENT

[Course management system](#), also known as an online learning platform is where thousands of students can apply without limit and get the degree or certificate they wish to easily. This system has gained recognition worldwide due to the plethora of tools that come handy with online courses. Development of information and communication technology has supported the growth of course management software and its propagation. Now almost everyone in a taken part of the society has a high-speed internet to access multimedia content available online.

Despite its rapid growth, the course management system is not completely spread in the market compared to how the internet has been adopted mostly due to lack of management resources and IT infrastructure. However, the potential for the growth of CMS technology in the market is high as universities and bigger institutes have started exploring this area and have started using CMS as an ideal medium for long-distance education programs.

CMS system makes education easier as there's an availability of multimedia sources alongside textual materials for the students. This makes learning fun and engaging thereby making a progressive e-learning environment.

Apart from students, even those who have been placed can get certificate courses in specialized areas related to their field without the need to quit their jobs. It's easier as well as an economical way to acquire education.

The students who cannot commute to universities get the highest benefits out of using CMS. Flexibility in terms of time makes it easier to multitask and still get the best results.

There are three types of tools to create an CMS, open-source, proprietary and SaaS solutions. Although these three types have their own merits and demerits, proprietary software can be considered as an optimized platform as it doesn't require additional training or employment of manual force to control and coordinate. Expert plus is a clone script that can be used to create such software or app. It is an Udemy clone PHP script loaded with every tool that would make a learning management system complete. BSEtec offers end to end solutions to get your own online tutoring software. If you want to create [CMS](#) and place your hand in the field of education, this is the right time as the field has a great scope now and the near future.