FACULTY OF BUSINESS ADMINSTRATION

DEPARTMENT OF INFORMATION TECHNOLOGY

PROJECT REPORT

TITLE: - DEVELOPING AN E-LEARNING SYSTEM (COURSE REPOSITORY**)**

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THIS IS PROJECT REPORT IS SUBMITTED IN PARITAL FULFILMENT OF THE REQUIREMENT FOR THE BACHELOR DEGREE OF BUSINESS INFORMATION TECHNOLOGY IN THE FACULTY OF BUSINESS ADMINISTRATION OF ZANZIBAR UNIVERSTIY

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SUPERVISOR: - MR. ALLY SALIM AHMED

DEDICATION

My very first thanks should be to ALLAH (SWT) for all that he has given me and the ability to write and finish this documentation.

I dedicate my research project work to my family and many friends. A special feeling of gratitude to my loving parents, to my father, who taught me that the best kind of knowledge to have is that which is learned for its own sake. It is also dedicated to my mother, who taught me that even the largest task can be accomplished if it is done one step at a time. Whose words of encouragement and push for tenacity ring in my ears, you have been my best motivator.

I dedicate my research project work to my brother Hassan, Sisters Aisha, Hanifa, Shaymah, Laynah and Cousin Rajab Billy, Fatima Mdoka, who have never left my side and are very special. I also extend my dedication of this research to the new family member, the light of my heart **Kareema Makawa**.

I also dedicate this research project to my many friends and Mosque family who have supported me throughout the process. I will always appreciate all they have done.

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APPROVAL PAGE

The research work has been read and approved as having satisfied the requirement award of Degree of Bachelor of Business Information Technology in the Faculty of Business Administration of Zanzibar University.

Signature……

Date……..

Mr. Ally Salim Ahemd

Supervisor

CHAPTER ONE

1.1 INTRODUCTION

E-learning is an education via the Internet, network, or standalone computer. E-learning is basically the network- enabled convey of skills and knowledge. E-learning refers to using electronic applications and processes to learn. E-learning includes all forms of electronically supported learning and teaching (Tirkes, G,2010).. The information and communication systems, whether networked learning or not, serve as specific media to implement the learning process. This often involves both out-of-classroom and in-classroom educational experiences via technology, even as advances continue in regard to devices and curriculum. E-learning is the computer and network-enabled transfer of skills and knowledge. E-learning applications and processes include Web-based learning, computer-based learning, virtual education opportunities and digital collaboration. Content is delivered via the Internet, intranet/extranet, audio or video tape, satellite TV, and CD-ROM. That is to say E-learning systems contain both Learning Management System and Course management system. It can be self-pace or instructor-led and includes media in the form of text, image, animation, streaming video and audio. It is commonly thought that new technologies can make a big difference in education. In young ages especially, children can use the huge interactivity of new media, and develop their skills, knowledge, and perception of the world, under their parents' monitoring, of course.

Many proponents of e-learning believe that everyone must be equipped with basic knowledge in technology, as well as use it as a medium to reach a particular goal and aim. In the 20th century, we have moved from the Industrial Age through the Information Age and now to the Knowledge Age. Knowledge and its efficient management constitute the key to success and survival for organizations in the highly dynamic and competitive world of today. Efficient acquisition, storage, transfer, retrieval, application, and visualization of knowledge often distinguish successful organizations from the unsuccessful ones. The ability to obtain, assimilate, and apply the right knowledge effectively will become a key skill in the next century. Learning is the key to achieving our full potential. Our survival in the 21first century as individuals, organizations, and nations will

depend upon our capacity to learn and the application of what we learn to our daily lives. E-learning has the potential to transform how and when employees learn. Learning will become more integrated with work and will use shorter, more modular, just-in-time delivery systems. By leveraging workplace technologies, e-learning is bridging the gap between learning and work. Workers can integrate learning into work more effectively because they use the same tools and technology for learning as they use for work. Both employers and employees recognize that e-learning will diminish the narrowing gap between work and home, and between work and learning. E-learning is an option to any organization looking to improve the skills and capacity of its employees. With the rapid change in all types of working environments, especially medical and healthcare environments, there is a constant need to rapidly train and retrain people in new technologies, products, and services found within the environment. There is also a constant and unrelenting need for appropriate management and leveraging of the knowledge base so that it is readily available and accessible to all stakeholders within the workplace environment.

1.2 PROBLEM ANALYSIS

1.2.1 Current system

The current situation is very limited to few resources, students are unable to get knowledge more than that the lecture provides to them. This in the end limits student's performances, because everything a student gets is collected from lectures in class.

Here are some of the problems of the current system:

- The current system at Zanzibar University is that lectures download references for students or for lecturing.
- Students submit assignment to lectures through hard copies or personal emails.
- Students only get help from lectures if the lectures are in they're office.
- New lectures to a course have to get materials on their own.
- Student are required to physical be in the classroom in order to gain knowledge thereby sacrificing all other responsibilities.

- Students are unable to share resources effectively and hold group discussions that are monitored or supervised by lectures

1.2.2 The future system

The system will hopefully serve as a centralized database of syllabus for the courses offered at the university allowing students and faculties (current, past and prospective), to view them. The system will end up bringing an effective communication among students, lectures, and the administration, by accessing information and other resources anytime, anywhere.

Here are some expected results of the project:

- Lectures to upload assignments and resources for their units.
- Students to download the resources and upload assignments.
- It provides an easy-to-use way to manage course websites that include schedule information, announcements, as well as course discussions.

1.3 OBJECTIVE OF THE PROJECT

E-Learning represents an innovative shift in the field of learning, providing rapid access to specific knowledge and information. It offers online instruction that can be delivered anytime and anywhere through a wide range of electronic learning solutions such as Web-based courseware, online discussion groups, live virtual classes, video and audio streaming, Web chat, online simulations, and virtual mentoring. E-Learning enables organizations to transcend distance and other organizational gaps by providing a cohesive virtual learning environment. Companies must educate and train vendors, employees, partners, and clients to stay competitive and E-Learning can provide such just-in-time training in a cost-effective way. Developing and deploying effective E-Learning programs may require products and services supplied by a variety of vendors, leaving one to connect the dots. One way to start is to define the goals of the desired learning solution. Definition of the goals of an E-Learning solution is driven by the following factors:

- **To perform task analysis**

Determine the tasks to be taught, identify subtasks and other elements involved, and identify the knowledge, skills, and attitudes required to complete the tasks efficiently and effectively.

- **To perform training needs analysis**

Identify the target audience for the training. Identify the shortfall in knowledge, skills, and attitudes of this audience and determine what the target learners need to know.

- **To review existing capabilities**

Review existing methods and infrastructure for providing training or meeting learning needs.

- **To determine expectations**

Identify concrete expectations and/or ROI requirements from the desired E-Learning solution. The development of an E-Learning strategy begins by setting goals. What will the E-Learning strategy accomplish? Without a true understanding of the goals of the E-Learning strategy, it will be difficult, if not impossible, to be successful.

Before implementing E-Learning, organizations need to set common goals or objectives. Common goals and objectives include the following:

- **To reduce learning costs**

As a small business owner, you know that online transactions cost a fraction as much those requiring paper or staff. It's the same with E-Learning because there are no papers, no delays, and no travel expenses. Such learning enables employees to take what they have just learned from their computer screens and apply it to the tasks at hand.

- **To motivate employees**

E-Learning is considered an effective way to keep up with new technology, to generate new ideas, and to keep your workforce fresh and inspired.

- **To improve flexibility of course delivery**

Smaller businesses don't have the staff to manage their training and development initiatives. E-Learning technologies can overcome these administrative restrictions

1.4 DEFINITION OF (UNFAMILIAR) TERMS

- ***Learning Management System*** **(LMS):-** A Learning Management System (LMS) is a software application or web-based technology used to plan, implement, and assess a specific learning process. Typically, a LMS provides an instructor with a way to create and deliver content, monitor student participation, and assess student performance

- ***Course Management System*** **(CMS):-** A course management system is a set of tools that enables the instructor to create online course content and post it on the Web without having to handle HTML or other programming languages.

1.5 SIGNIFICANCE OF E-LEARNING SYSTEM

Technology has the power to transform education. It is essential to bring it into the classroom to empower learning. Here are some of the reasons (significance/importance).

1. Students need to be engaged with what they are doing to improve learning outcomes
2. Enables students to become thinkers/learners/risk takers in a sheltered environment.
3. Learn not to rely on the teacher…be accountable themselves…become independent!
4. Broadens the horizons of many students as it exposes students to the world outside their city or country town.
5. Fits in with Rural Education where students in small rural schools need no longer be disadvantaged by distance and isolation, as technology allows them to learn virtually and maintain their subject choices, allows e.g. LOTE (languages other than English) and other specialist subjects to be taught across schools by a virtual teacher.
6. Allows a mobile learning environment – anywhere, anytime, anyhow.

1.6 STATEMENT OF RESEARCH HYPOTHESIS

The main goal of this research is to find out about five influential variables derived from previous research were applied as independent variables, while perceived e-Learner satisfaction was used as a dependent variable.

- **Hypothesis 1**. Learner attitude toward computers will positively influence perceived e-Learner satisfaction with e-Learning.
- **Hypothesis 2**. Learner computer anxiety will negatively influence perceived e-Learner satisfaction with e-Learning.
- **Hypothesis 3**. E-Learning course flexibility will positively influence perceived e-Learner satisfaction with e-Learning.
- **Hypothesis 4**. E-Learning course quality will positively influence perceived e-Learner satisfaction with e-Learning.
- **Hypothesis 5.** Technology quality will positively influence perceived e-Learner satisfaction with e-Learning.

1.7 RESEARCH QUESTIONS

Some of the key questions addressed by E-learning research are:

How do E-learning strategies actually promote effective learning?

- Can technology be used successfully to simulate authentic tasks and environments?
- What impacts do technology facilitated interaction and practice opportunities have on student learning?
- What theories of learning support and emerge from E-learning practice?
- Are E-learning strategies affordable, practical and sustainable?
- Can E-learning help to promote objectives related to student access and autonomy?
- How can quality standards be maintained in E-learning environments?
- What new teaching and study skills are required for E-learning and how can they is promoted?

1.8 DELIMITATION AND SCOPE OF STUDY

Although e-Learning has many benefits for students and organizations alike, it also has limitations

- **Computer literacy and access to equipment.** Any e-Learning system involves basic equipment and a minimum level of computer knowledge in order to perform the tasks required by the system. A student that does not possess these skills, or have access to these tools, cannot succeed in an e-Learning program.
- **Some topics are not appropriate for e-Learning.** Certain subjects that require physical exertion and practice, such as sports and communication skills, are not good candidates for e-Learning. However, e-Learning can be a useful companion to traditional education for teaching background and technical information.
- **Students themselves can be a limitation to e-Learning.** The flexibility and student-centered nature of e-Learning requires a high level of student responsibility. A successful e-Learning student must be well organized, self-motivated, and have good time management skills. What you get out of an e-Learning program is directly related to the amount of effort you put in.

CHAPTER TWO

Literature Review

2.1. Overview

E-learning is among the most important explosion propelled by the internet transformation. Although it has the inability to handle all functions of the institution such as some courses that require practical skills and supervision but it also increases the interaction among students and lectures which in turn will lead to achieve the learning goal as students are able to access anywhere and anytime(Noeline,2010). E-learning delivers content through electronic information and communications technologies (ICTs). According to, the use of these facilities, involves various methods which includes systematized feedback system, computer-based operation network, video conferencing and audio conferencing, internet worldwide websites and computer assisted instruction. This delivery method increases the possibilities for how, where and when employees can engage in lifelong learning. Therefore an E-learning system has more advantages than it has limitations.

2.2 Introduction

Different authors use different terminologies including online learning, Internet learning, distributed learning, networked learning, tele-learning, virtual learning, computer-assisted learning, web-based learning and distance learning interchangeably with the term e-learning, making it difficult to come up with a generic term to define e-learning. The common factor in all these terms is the use of technology in the delivery of teaching and learning.

But one author by the name of Naidu breaks e-learning down into the following modalities:

1. Individualized self-paced online e-learning where an individual learner accesses learning materials online;

2. Individualized self-paced offline e-learning where an individual learner accesses learning materials offline.

3. Synchronous group-based e-learning where a group of learners work together in real time via intranet or Internet.

4. Asynchronous group-based e-learning where a group of learners work together through Internet or intranet but their interactions are not done in real time.

This literature review on learning will cover the learning which happen offline among peers, the learning which happens online using LMSs (e-learning), the different learning methods which happens online and their advantages and disadvantages. This literature review will not cover on social networking interactions which happen in the online social network environment.

2.3 The Literature Review Process

I used the literature review to generate pertinent ideas that could be further refined. I also engaged in critical reflection on these ideas in order to evaluate their origins, meaning and status in the research. During the cause of the study I continuously returned to the literature review to update it, refine it, and add new information and observations.

In order to make sense of the literature I attempted to examine literature that was current, similar and relevant.

I used the following criteria as filter to determine whether include or exclude text from the literature review process.

- Is the material relevant in this study?
- Is the proposed text by an author who was suggested by other author's reputable authority?
- Will the material augment the intellectual matrix of this study?
- Will the proposed text shed light on the issues raised in this research?
- Does the date of the material suggest that it is an up to date contribution in this field?

2.4 Literature Review Aims and Methods

There are two main aims to this literature review. The first aim is to establish the characteristics and importance of formative, coursework assessment. The second aim is to identify e-learning techniques, tools and approaches for this type of assessment, to discuss what is known about their effectiveness and to uncover factors influencing uptake.

For the first aim key articles and books that have shaped current theory on formative assessment of student work have been identified and analyzed. For the second aim a comprehensive search of e-learning literature from 2001 to the present was conducted.

The classes taught by the **E-learning Center** cover many computer and non computer oriented topics. The classes are presented as online seminars using video and flash media. Exercises are integrated into each class instruction segment. E-Learning Center offers online web design tutorials on many aspects of web design, but also on general computer applications and even certifications.

According to some authors they say that LMS in universities and in different organizations is very wide spread because of the features they provide which simplify the management and delivery of course content to students. Regardless of their wide use, their focus is more on the delivery of content than on the learner. LMSs offer little or no opportunities for learners to interact and collaborate on different works and to author content which can contribute to the knowledge which is already available in the systems. LMS are mostly for people/students who are already computer literati, but for those who don't not have any computer skills have a problem to adapt to the new learning system.

Here are some of the negative aspects of the research area form different source:-

1. Bright and independent students (learners) benefits from constructivist approaches online.
2. Designing online courses may require more imagination and skill than traditional courses.
3. Too many new topics could unintentionally shift the attention from important topics in online discussions.
4. Online interaction centered on information rather than constructing knowledge.
5. If collaboration serves no real purpose learners will end up learning in isolation.

In another researches it was found that to be effective, tertiary education should engage learners as active participants in their learning. Achieving this means offering learners opportunities for interaction in ways that can promote change and growth in the learner's conception of knowledge. Such pedagogies aim to encourage learners to become autonomous lifelong learners, capable of problem solving and critical thinking, and to move them from being passive recipients of information and knowledge to being active, enthusiastic learners and knowledge creators.

Here are some of the positive aspects of the research area form different source:-

1. Solving problems through online discussions is more rewarding than face to face discussions and fewer messages are generated.
2. The role for online lectures is critical to success.
3. Open-ended assignments tend to encourage deep thinking.
4. Knowledge acquired by means of repetition is transferred from short-term to long-term memory.
5. It helps enhance the skill of independent learning, social skills, teamwork, thinking skill and internet navigation skill.

The main method to identify relevant articles was reading titles and abstracts of selected journals articles and papers in conference proceedings. While more time consuming this method was chosen in preference to keyword search as it presents a more thorough approach to identifying relevant articles. Additionally, keyword search was carried out on several databases. This was done to cover some additional conference publications and to cross-check against the primary search method. Among the keywords used were: online marking, electronic submission, annotation, marking, assessment mark-up, assessment marking, e-learning formative essay, essay mark-up, formative assessment essay, and marking essay online.

2.5 Assessment in Relationship to Teaching and Learning According to Different Journals

Assessment is an important component of education that has to be seen in a wider context of educational goals, course design and student motivation. While a detailed exploration of these issues is beyond the scope of this literature review some high- level introductory comments can be made to provide the context for the following sections. Here are some of the outcomes of the literature reviews I have gone through.

The first journal I referred to was:- **student use of a learning management system for group projects: a case study investigating interaction, collaboration, and knowledge construction** by Steven d. Lonn Web-based Learning Management Systems (LMS) allow instructors and students to share instructional materials, make class announcements, submit and return course assignments, and communicate with each other online. The results indicate that students successfully used the LMS to interact and, to a significant extent, collaborate, but there was very little evidence of knowledge construction using the LMS technology. "The combination of learning principles and (LMS) tools … results in a learning environment that is greater than simply the sum

of its parts. This potential, often strived for but much less often realized, continues to bring faculty and students to the (LMS) with an excitement and determination that rests on the hope of deeper, more meaningful, engaged learning" (Carmean & Haefner, 2002, pp. 34)

The second journal was: - **The Educational Value of Integrating a Learning Management System and a Social Networking Platform** by Chikumbutso David Gremu. The use of LMSs at universities and in different organizations is very wide spread because of the features they provide which simplify the management and delivery of course content to students. Regardless of their wide use, their focus is more on the delivery of content than on the learner. LMSs offer little or no opportunities for learners to interact and collaborate on different works and to author content which can contribute to the knowledge which is already available in the systems.

The third journal was: - **Academic and student use of a learning management system: Implications for quality** Debbi Weaver Christine Spratt and Chenicheri Sid Nair. Many higher education institutions have implemented a learning management system (LMS) to manage online learning and teaching, with varying levels of support provided to staff and students, but often there is little subsequent investigation into the quality of the online sites or the use made of the support structures provided.

The fourth journal was: - **e-Learning and implications for New Zealand schools: a literature review Report to the Ministry of Education** by Noeline Wright. This e-Learning literature review examined texts across a range of countries, but within a relatively short time frame of the preceding five years. A range of criteria were used to select or eliminate studies for closer review. E-Learning tools can motivate and engage students. These may be critical factors leading to improved educational outcomes. Many young people are technologically literate regarding social networking and using mobile technologies as everyday tools, but they may still be neophytes when it comes to understanding how to use them in purposeful and educationally oriented ways.

CHAPTER THREE

Methodology

3.1 INTRODUCTION

The study will be conducted as a case study at Zanzibar University, in particular to the department of Business Administration. The case study will help to capture the needed information so as to accomplish the study.

The study included the respondents such as lectures, students and other professionals of Zanzibar University and outside the compass; they are so vital factors to complete the study.

3.2 Research Design

In the this stage of the data analysis process, the best method which was found to be very effective is the qualitative view which would help the study to explore the information needed in creating an efficient yet effective system.

A qualitative research is a systematic subjective approach used to describe life experiences and give them meaning which its main goal is to gain insight; explore the depth, richness, and complexity inherent in the phenomenon.

3.3 Sample

The study was conducted in Zanzibar at a high learning institution. The purpose of the study is to design a specialized system for student courses repository. The study helps explore and investigate the importance of the student course repository in relation to the old system.

Simple random sampling was used when assigning participants, where by each participant has equal chance to participate. This is done so as to minimize the cost and time, also to get accurate information from the participants. The interviewed people where students in the university, lectures and other IT professionals.

The interviewer was allowed to collect some supplementary information about the respondents personal characteristics and environment which is often of great value in interpreting results, this

is good because it is free from bias of the interviewers and the answers are in the interviewers own words.

3.4 Procedure

The study will be conducted in one month; hopefully it will be enough to both interviewer and respondent to send and respond to the questions for submission. The project preparation will take two months which will include the submission of the project documentation. During the designing of the interface and the whole system the will be a constant checking up with the the users who include students and lectures and some professional system developers.

3.5 Data Collection Techniques

Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes. A formal data collection process is necessary as it ensures that data gathered are both defined and accurate and that subsequent decisions based on arguments embodied in the findings are valid.

The process provides both a baseline from which to measure and in certain cases a target on what to improve, an important aspect of any type of research study. Inaccurate data collection can impact the results of a study and ultimately lead to invalid results.

In this research the best data collection techniques to used were Questionnaires and Interviews, and those were the ones used

Questionnaires: - this is where data is collected by giving a respondent a list of questions that are designed to find out specific information. The questionnaires can be either Paper-pencil-questionnaires or Web based questionnaires.

Interviews: - this is where data is collected by having a conversation between an interviewer and an interviewee. The conversation can be Face to face, Telephone or Computer Assisted Personal Interviewing (CAPI).

3.6 Feasibility Study

Best Learning Management System Defined

The best LMS solution is defined in this study as one in which all LMS components are considered within the total learning infrastructure of Zanzibar University such that maximum student success is ensured from both an institutional and System perspective. Aspects of these components within the frame work of student success were assessed by the following attributes:

• **Cost effectiveness**: - the total cost figures included in this report represent a current snapshot of the LMS expenditures excluding self-hosting and migration cost, is reported to the Assessment team. The benefits of the LMS is expected to be more than cost such as hosting maintenance and other cost that may be incurred.

• **Support and Training**: - the system must have a virtual learning community provides students orientates templates and professionals, development resources for faculty by providing online help desk services for students and faculty that includes chat, email, telephone and a personalized support portal available 24/7/365.

• **Ease of Use**: - the LMS must have ease of use components and no additional instrument questions were developed the system should have a higher level of instructor and administrator perceived application functionality.

• **Scalability**: - the LMS must be able to report on the number of active course, users, and average course size and storage capacity on their LMS. It should be able to hold a lot of actives but still be able to use a less storage capacity.

• **Sustainability**: - The sustainability of an LMS is paramount to the future growth of distance learning in the university. The system-wide capability to support LMS-centric learning technology is challenging in both the short and long terms. Information from the success NC listening tour notes indicate that: -

(1) Colleges differ on LMS preferences but want continued support from the System Office.

(2) Learning technology offers an effective and flexible means to facilitate learning.

(3) Increased enrollments have negatively affected instructors, strained facilities, and encouraged creative interventions to maximize resources.

SUMMARY

The main aim and focus of this study is to find out what will help in the creation and designing of an eLearning service called a **Course Repository.** The specific objectives of this study include the following:-

Firstly to investigate the challenges the university faces with the current system.

Secondly is to find out the requirements of the university that will be needed in the new system and how will it meet with the business objectives of the university.

Thirdly is to find out whether the new system will benefit the university more than the current system.

Fourth is to find out how to make the new system user friendly i.e. to the students, lectures and others

CHAPTER FOUR

Presentation, Analysis and Interpretation

4.0 Introduction

In this chapter, it will explain and try to answer the research questions and determine the trends and relationship among the variables. It presents the findings of the study project, but also the general characteristic of the population. It shows the result of the survey conducted in the study of effectiveness of the ELearning system also known as course repository.

This chapter also explains and shows the backbone of the system by showing you the database design, user case diagrams for administrators, lectures and students. It explain how each user of the system can use the system with easy. How they can start from logging in, what they can do in the system and to logging out.

4.2 presentation and analysis of data according to research questions/hypothesis

The data for this study were gathered by means of a survey questionnaire administered to 850 Undergraduate students during the 2010/2011 session. The survey instructed students to provide feedback about their experiences with the e-learning system. The survey targeted first year, second year and third year students at the Faculty of Business Administration and 450 responses were achieved, giving a 53% response rate. Respondents were majority female (56.6%) compared to male (43.4%). By age, respondents were grouped into 16 to 19 (64.2%), 20 to22 (31.6%), 23 to 25 (2.2%). In terms of students' level, first year student level is represented by26.4%, second year student level is represented by 58.7%, and third year student level is represented by 14.9%. More detailed descriptive statistics about the respondents' characteristics are shown in Table 1.

4.3 Respondent's characteristics and classification of collected data

Table 1 descriptive statistics about the respondents' characteristics

Items	Value	Frequency(n)	Percentage (%)
Gender	Male	200	43.4
	Female	250	56.6
Age	16-19	289	64.2
	20-23	142	31.6
	24-26	19	2.2
Student Level	First year	119	26.4
	Second year	264	58.7
	Third year	67	14.9

4.4 System Requirements

System requirements are what is necessary for a client to install the web application in their system and be used hopefully without any difficulties. The aim of this is to help clients make sure they have all required tools or equipment.

With analysis there are some objectives for hardware, software and any other thing that would be the minimum requirements to install the system. The minimum requirements are as follows.

Hardware requirements

Computer with:-

- 256 MB RAM but 1 Gig preferred
- Internet access at 56k or above
- 3 GB of hard disk space
- Screen resolution min 1024 x 768

Software requirements

- Internet Explorer 7.0+, Safari 3.0+, Firefox 3.0+ (Browser must be Java and JavaScript enabled)
- Windows 7, Vista, or XP; Mac OSX 10.4+
- IE 7.0+, Safari 3.0+, Firefox 3.0+ (Browser must be Java and JavaScript enabled)
- System development software: - visual studio (asp.net and C#), SQL server.

4.5 System Evaluation

In is in the very hope that by the end of the implementation of this system 97 percent of the problems faced in the by the current system shall be resolved and it will meet all user requirement, user friendly as users were involved in all stages of the development system.

In this system there are three main users which are the administrator, the lecture and the student, each one of them has their specific task and roles they can perform within the system. The system is sensitive to privacy protection thereby the system has been designed to observe these matters.

4.5.1 Administrator

The system administrator will have full access privilege of the system which the other users cannot perform. Some of these include: - assigning roles to user (who is the Admin, lecture or student), deleting users, adding (department, faculties), and lastly creating users.

4.5.2 Lecture

The lecture will have the privileges of uploading and downloading documents, posting news about (test, class, and assignments), start blogs for discussions and upload results (coursework).

4.5.3 Student

The student will have less privileges, the student will be able to upload and download documents, comment on the blogs created by lectures, and view posts news by lectures, and administrators, and lastly students will be able to view their coursework.

4.6 User case Diagram

Administrator user case

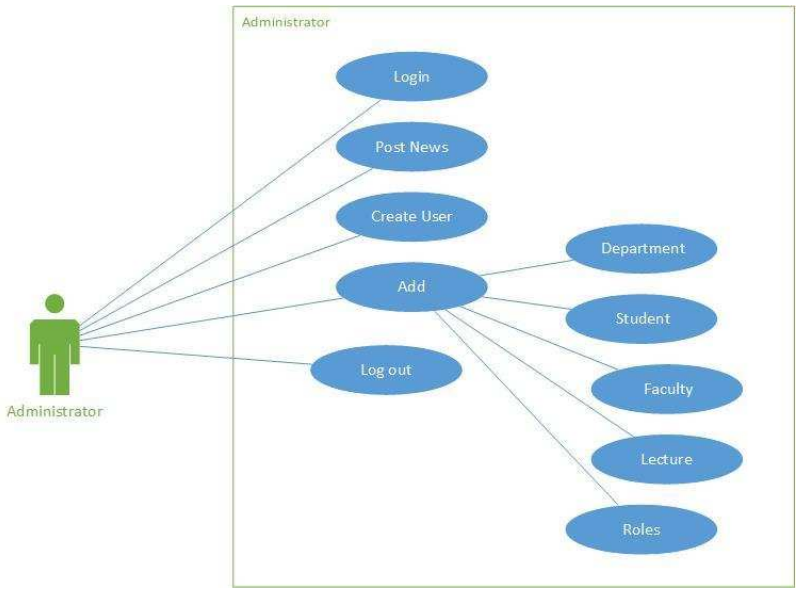


Figure 1 Administrator User Case

Lecture user case

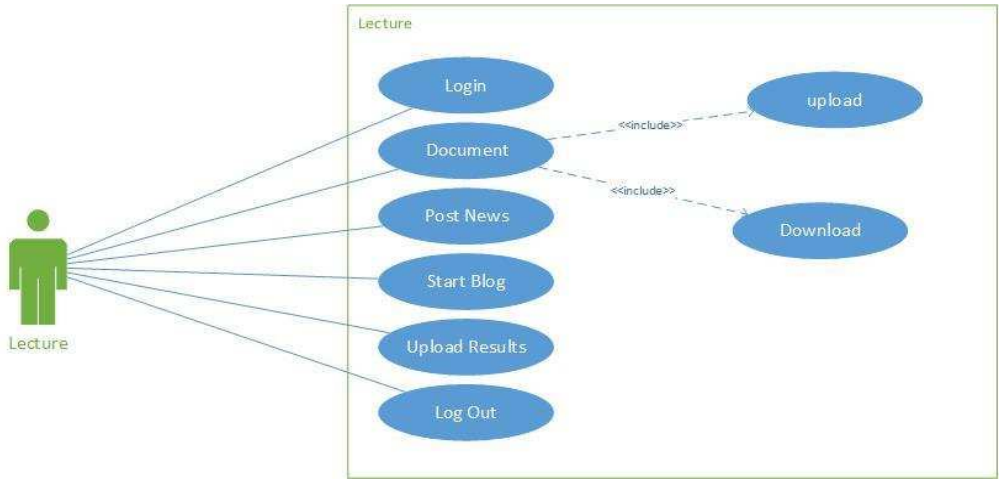


Figure 2 Lecture User Case

Student user case

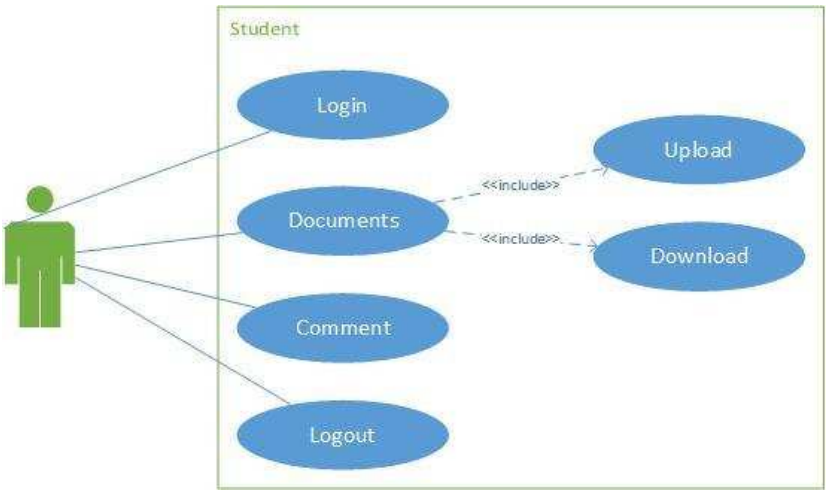


Figure 3 Student User Case

4.7 Database Screen Shoots

ABDULLAHKULESI....dbo.aspnet_Users

Column Name	Data Type	Allow Nulls
ApplicationId	uniqueidentifier	☐
UserId	uniqueidentifier	☐
UserName	nvarchar(256)	☐
LoweredUserName	nvarchar(256)	☐
MobileAlias	nvarchar(16)	☑
IsAnonymous	bit	☐
LastActivityDate	datetime	☐
		☐

Figure 4 User Table

ABDULLAHKULESI.e... - dbo.student3* | ABDULLAHKULESI....dbo.coursework1 | ABDULLAHKULESI....pnet_Membership | ABDULLAHKULESI....dbo.aspnet_Users

Column Name	Data Type	Allow Nulls
Registration_number	nvarchar(50)	☐
First_name	nvarchar(50)	☐
Middle_name	nvarchar(50)	☐
Last_name	nvarchar(50)	☐
Faculty	nvarchar(50)	☐
Department	nvarchar(50)	☐
year	int	☐
Phone_number	nvarchar(50)	☐
Email	nvarchar(50)	☐
Gender	nvarchar(50)	☐
		☐

Figure 5 Student Table

ABDULLAHKULESI....dbo.coursework1 | ABDULLAHKULESI....pnet_Membership | ABDULLAHKULESI....dbo.aspnet_Users

Column Name	Data Type	Allow Nulls
Registration_id	nvarchar(50)	☐
Test_1	int	☐
Test_2	int	☑
Assignment	int	☐
Extra	int	☑
Total	int	☐
		☐

Figure 6 Coursework

4.8 System Screen Shoots

Home page

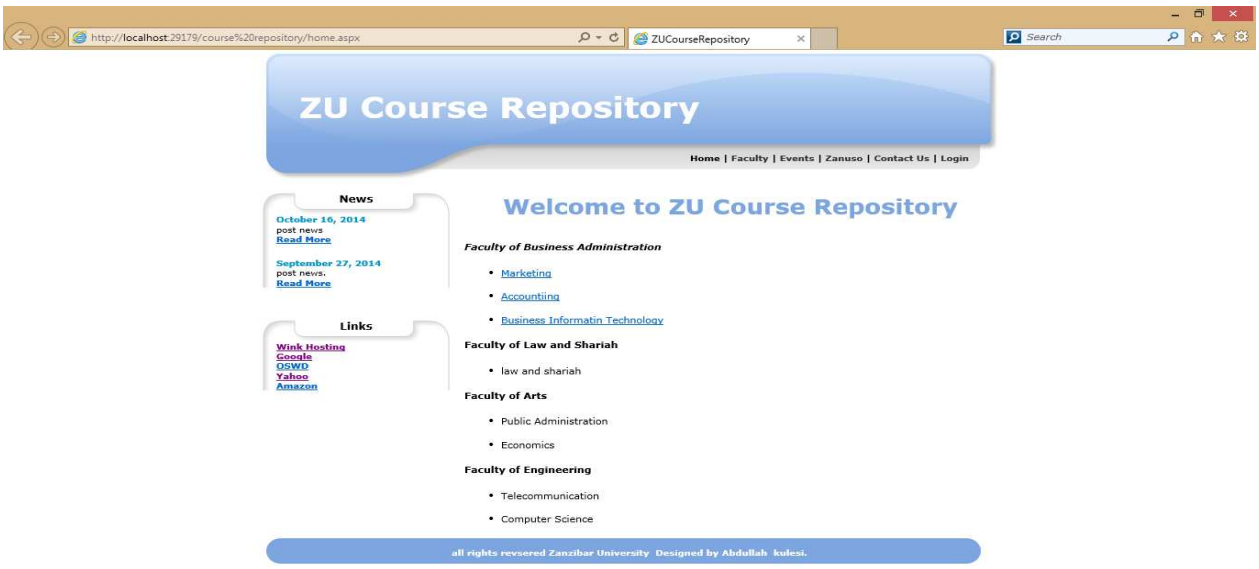
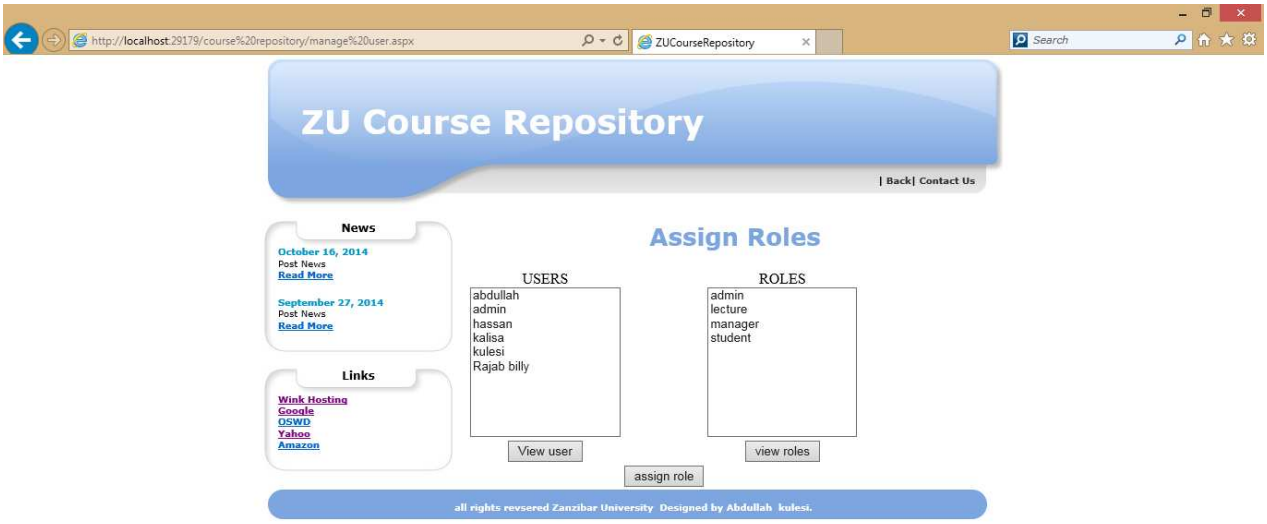


Figure 7 home page interface

Login page

Figure 8 Login form

Manage user roles page



Create user page

Figure 9 Creating User

Sending email page

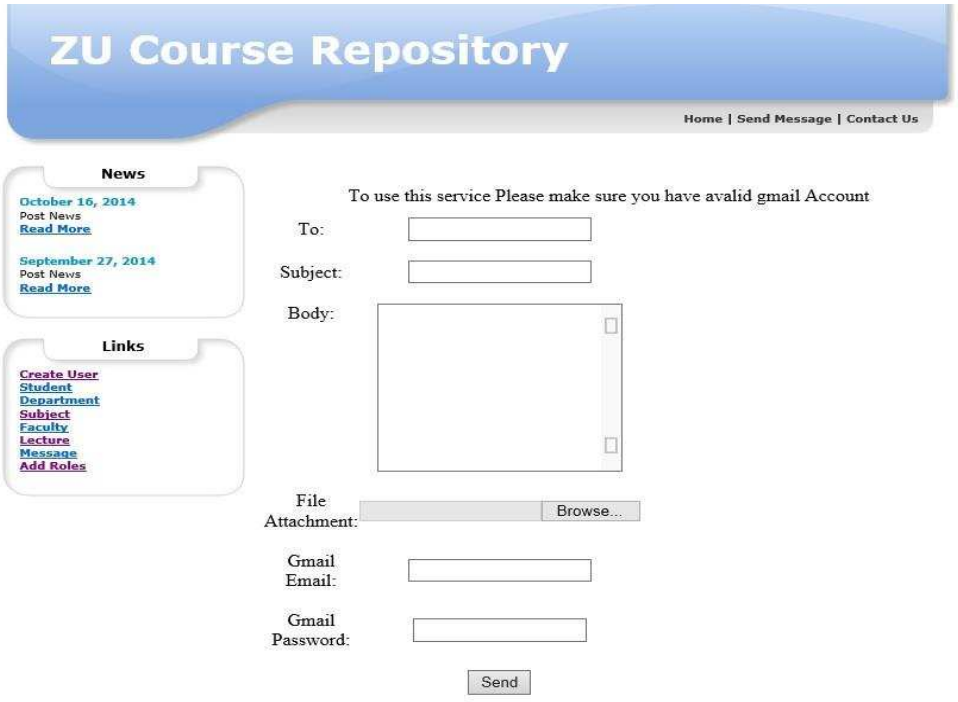


Figure 10 Message sending

CHAPTER FIVE

5.0 SUMMARY, CONCLUSIONS, RECOMMDEATIONS AND RECOMMENDATIONS FOR FUTHER STUDIES

5.1Summary Of Findings

After a deep research I found that, there is a lot of information concerning the topic of developing a course repository, but the major problem with the information is that there is a contradiction as to whether the system itself brings in a lot of benefit to an organization. And there is an argument as to what it should be what are the contains of a course repository and what its limits should be.

5.2 Conclusion

In conclusion, to these research project I find that to develop a fully working system is not only a difficult task but also requires a lot knowledge in database design and some programming languages. I wish I could develop the system I had in my mind but due to the limited skill I couldn't.

It would be very helpful if the University could concentrate on some of the subjects to be covered in a way that they would help students in their projects, instead of learning C we could be taught ASP.net, PHP and the other languages that are used when developing a system.

Finally I would like to express myself as to how I find this process of developing a system to be very awaking to the mind of a student and to learn how to and teach themselves things. I have built a skill of how to search for things and develop then to my needs. It has indeed been a great experience.

5.3 Recommendation Actions

By the university implementing this system it will help the institution became more resourceful and avoid an in convince that is caused due some misguided information that passes through to all students and lectures.

The second recommendation action is that final year projects should be done in groups, because with the little knowledge student are, it would help students develop more advanced systems than if they do the alone. It would also easy some of the challenges that students undergo during the project.

APPENDIX A CODES (HTML & C#)

User Login

HTML CODES

```
</p>
    <table class="style1">
        <tr>
            <td class="style2">
                U<label for="username" class="uname" data-icon="u" >sername:
</label> </td>
            <td class="style4">
                <asp:TextBox ID="UserName" runat="server" Width="168px"></asp:TextBox>
 </td>
            <td style="text-align: left">
                 </td>
        </tr>
        <tr>
            <td class="style5">
                <label for="password" class="youpasswd" data-icon="p">  Password:
</label> </td>
            <td class="style6">
                <asp:TextBox ID="Password" runat="server" TextMode="Password"
Width="167px"></asp:TextBox></td>
            <td class="style7">
                 </td>
        </tr>
        <tr>
            <td class="style5">
                 </td>
            <td class="style6">
                 </td>
            <td class="style7">
                 </td>
        </tr>
        <tr>
            <td class="style2">
                 </td>
            <td style="text-align: left">

                <asp:Button ID="loginButton" runat="server" Text="Sign In"
                    onclick="loginButton_Click" />

              </td>
            <td style="text-align: left">

                <asp:Label ID="msgLabel" runat="server"></asp:Label>
            </td>
```

CODE BEHIND

```
using System;
using System.Collections.Generic;
using System.Linq;
```

```
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.Security;


public partial class login: System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void LoginButton_Click(object sender, EventArgs e)
    {

    }
    protected void loginButton_Click(object sender, EventArgs e)
    {
        if (string.IsNullOrEmpty(Request.QueryString["ReturnUrl"]))
            if (Membership.ValidateUser(UserName.Text,Password.Text))
            {

                if (Roles.IsUserInRole(UserName.Text, "Admin"))
                    Response.Redirect(".//Admin/Admin.aspx");
                else if (Roles.IsUserInRole(UserName.Text, "student"))
                    Response.Redirect(".//student/student.aspx");
                else if (Roles.IsUserInRole(UserName.Text, "lecture"))
                    Response.Redirect(".//Lecture/Lecture1.aspx");


            }

  }
}
```

MANAGE USER PAGE

HTML CODES

```
        <table class="style1">
            <tr>
                <td>
                    <strong>USERS</strong><br />
                    <asp:ListBox ID="userListBox" runat="server" Height="162px"
Width="163px"></asp:ListBox>
                </td>
                <td>
                     </td>
                <td>
                    <strong>ROLES<br />
                    </strong>
                    <asp:ListBox ID="roleListBox" runat="server" Height="162px"
Width="162px"></asp:ListBox>
                </td>
            </tr>
            <tr>
                <td class="style2">
```

```
                    <asp:Button ID="userButton" runat="server" onclick="userButton_Click"
                        Text="View user" />
                </td>
                <td class="style2">
                </td>
                <td class="style2">
                    <asp:Button ID="roleButton" runat="server" onclick="roleButton_Click"
                        Text="view roles" />
                </td>
            </tr>
            <tr>
                <td>
                     </td>
                <td>
                    <asp:Button ID="assignButton" runat="server"
onclick="assignButton_Click"
                        Text="assign role" />
                </td>
                <td>
                    <asp:Label ID="msgLabel" runat="server"></asp:Label>
                </td>
            </tr>
        </table>
```

CODE BEHIND

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Web.Security;


public partial class manage_user : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {

    }
    protected void userButton_Click(object sender, EventArgs e)
    {
        userListBox.DataSource = Membership.GetAllUsers();
        userListBox.DataBind();

    }
    protected void roleButton_Click(object sender, EventArgs e)
    {
        roleListBox.DataSource = Roles.GetAllRoles();
        roleListBox.DataBind();

    }
    protected void assignButton_Click(object sender, EventArgs e)
    {
        string user;
        string roles;
        user = userListBox.SelectedValue.ToString();
```

```
        roles = roleListBox.SelectedValue.ToString();
        msgLabel.Text = string.Format("User {0} has been Assigned the Role of {1}
",user,roles);
    }
}
```

UPLOAD PAGE

HTML CODES

```
<table class="style1">
            <tr>
                <td class="style3">
                choice a file to upload<br />
            <asp:FileUpload ID="FileUpload1" runat="server"
                        style="text-align: right; margin-right: 54px" Width="307px" />
                </td>
            </tr>
            <tr>
                <td style="text-align: center">
<asp:Button ID="btnUpload" runat="server" Text="Upload file" OnClick="UploadFile"
                        style="text-align: center" />

                </td>
            </tr>
        </table>
```

CODE BEHIND

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.IO;

public partial class sdownload : System.Web.UI.Page
{
    protected void Page_Load(object sender, EventArgs e)
    {
        if (!IsPostBack)
        {
            string[] filePaths = Directory.GetFiles(Server.MapPath("~/Uploads/"));
            List<ListItem> files = new List<ListItem>();
            foreach (string filePath in filePaths)
            {
                files.Add(new ListItem(Path.GetFileName(filePath), filePath));
            }
            GridView1.DataSource = files;
            GridView1.DataBind();
        }
    }
    protected void UploadFile(object sender, EventArgs e)
    {
```

```
        string fileName = Path.GetFileName(FileUpload1.PostedFile.FileName);
        FileUpload1.PostedFile.SaveAs(Server.MapPath("~/Uploads/") + fileName);
        Response.Redirect(Request.Url.AbsoluteUri);
    }
    protected void GridView1_SelectedIndexChanged(object sender, EventArgs e)
    {

    }
    protected void DownloadFile(object sender, EventArgs e)
    {
        string filePath = (sender as LinkButton).CommandArgument;
        Response.ContentType = ContentType;
        Response.AppendHeader("Content-Disposition", "attachment; filename=" +
Path.GetFileName(filePath));
        Response.WriteFile(filePath);
        Response.End();
    }
    protected void DeleteFile(object sender, EventArgs e)
    {
        string filePath = (sender as LinkButton).CommandArgument;
        File.Delete(filePath);
        Response.Redirect(Request.Url.AbsoluteUri);
    }
}
```

APPENDIX B LIST OF FIGURES

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