PURBANCHAL UNIVERSITY

DEPARTMENT OF COMPUTER ENGINEERING

KHWOPA ENGINEERING COLLEGE
LIBALI-2, BHAKTAPUR

A FINAL PROJECT REPORT

ON

LECTURE ARCHIVE

Project work submitted in partial fulfillment of requirements for the award of the degree of Bachelor of Engineering in Computer Engineering (Fifth Semester)

SUBMITTED BY

Dina Manandhar (750312)

Niruta Baniya (750319)

Prashamsa Bakhrel (750323)

Sushma Karki (750347)

SUBMITTED TO

Department of Computer Engineering
Khwopa Engineering College

UNDER THE SUPERVISION OF

Er. Umesh Hengaju
27 February, 2022

DEPARTMENT OF COMPUTER ENGINEERING

KHWOPA ENGINEERING COLLEGE

LIBALI-2, BHAKTAPUR

CERTIFICATE

This is to certify that the project entitled "**LECTURE ARCHIVE**" submitted by Ms. Dina Manandhar, Ms. Neeruta Baniya, Ms. Prashamsa Bakhrel and Ms. Sushma Karki in a partial fulfillment of the requirements for the award of the Degree of Bachelor of Engineering in Computer Engineering of Purbanchal University, is a bonafide work to the best of our knowledge and may be placed before the examination Board for their consideration.

Panel of Examiners:

Name	Signature	Date

External Examiner

Er. ……

Project Supervisor

Er. Umesh Hengaju

Head of Department

Er. Bikash Chawal

ACKNOWLEDGEMENT

We would like to express our sincere thanks to the department of Computer Engineering for providing us the opportunity to explore our interest and ideas in the engineering field through the project.

We would like to thank our supervisor **Er. Umesh Hengaju** who helped us a lot in gathering different information, collecting data and guiding us from time to time and sharing us their valuable ideas in selecting project title as "**LECTURE ARCHIVE**" despite of his busy schedules.

We grant sense of gratitude to **Er. Bikash Chawal**, Head of Department of Computer Engineering for his encouragement, inspiration and guidance for accomplishing this valuable task.

Beside them, there are many such hidden scholars who cannot be scored off, who helped us. Our special thanks go to all of them.

Group Members

Dina Manandhar (750312)

Niruta Baniya (750319)

Prashamsa Bakhrel (750323)

Sushma Karki (750347)

ABSTRACT

This project entitled as “Lecture Archive” is a replica of the present online education where students and teacher interact. This project is all about helping teachers and students to manage classroom activities. In this system, students can have live class, materials of respective subjects and can submit their works. On the other hand, a teacher can take students attendance, conduct classes, leave class notices and post related materials for the respective classes.

For the completion of project, we have used various web designing tools such as PHP, HTML, CSS, and JavaScript. This system creates convenient and friendly platform for student and teacher.

Keywords: *Lecture Archive, Online discussion, Distance learning, Online collaboration tools*

TABLE OF CONTENTS

TABLE OF FIGURES

CHAPTER 1
INTRODUCTION

1.1 Background

Our project, on the topic “Lecture Archive”, is the web-based project which main purpose is to give instructors and students an interactive online platform through live class for learning experience. This project contains necessary materials to students. It provides records of all necessary information on Class schedules, attendance, grades, etc. which can be accessed by both instructors as well as students. Teacher can easily create and conduct live classes using this system.

The development of Lecture Archive is to place materials so that one can perform overall classroom activities. This project helps student to connect with the teacher and can do the assignments given by the teacher on the go. As well as teacher can manage their classes, teach online, upload assignments and test without any hassle.

To complete this project, we used the web designing tools like PHP, HTML, CSS, JavaScript and SQL for the frontend and backend purposes. For this project to be successful, we tool taking help and references from the similar projects done previously.

1.2 Statement of Problems

We had visited various resources and found similar projects as ours. In those projects we found out some of the problems as follows:

No dual interactions between student and instructor.

- There was not a provision of conducting an online class.
- Those projects had very few classroom activities.

1.3 Motivation

This project is highly motivated from the problems that we faced during the pandemic. The Covid-19 pandemic left students and colleges struggling which made physical learning difficult so, to overcome these difficulties we got motivates to develop the project. In order to study effectively this website helps to provide all necessary class activities in a systematic manner.

1.4 Objectives

This project has been carried out with intention of solving problem that arises in Online Classroom. So, the objectives of the project are as below:

1. To develop a web portal for archiving lectures, tutorials and meetings.
2. To establish a central web archiving repository that could be equally shared among all parties.

1.5 Scope

As of now, the number of institutions trying to conduct online classes is on the rise. So, for this Lecture Archive would be one of the best platforms to help such institutes to make learning easier by staying in one place.

CHAPTER 2
LITERATURE REVIEW

Many projects on the similar approach have been done previously. It would have been nearly impossible for us to proceed without the study of previously made similar approaches. We studied and analyzed various available projects and Journal papers with the similar goals.

E-Pustakalaya is an education-focused digital library containing full-text documents, images, videos and audio files that can be accessed through an intranet or the internet. The user can either read documents, view videos, and listen to audio clips directly from the E-library server or she can download these materials to her personal computer and view them later (E-PUSTAKALAYA, 2021).

My second teacher is an educational focused digital library containing full text document, images, videos that can be accessed through an internet. User can download the materials to their computer and view whenever required (My second teacher, 2021) .

According to the University of Michigon and CERN with ATLAS collaboration journal paper, it focuses on lecture recording and large scale of conferences. In addition, many of the institutes are separated by several time zones from CERN, making live participation through videos. Having access to some form of reproduction of the original lecture, however, can greatly facilitate the learning process (Michigon and CERN with ATLAS , 2021) .

According to Richard I Arderson, Crystal Hoyer paper, it respects on classroom use of writing in one such system, in which instructor annotates projected slide using Tablet PC. (Richard Arderson, 2021) .

According to Craig Prince, Fred Videon paper, they make easier to interact with electronic material and extract information from them. The lecture archives have potentials not to increase reviewing opportunities for the students but to acquire a volume of expert knowledge and to support Faculty Development activities (Prince, 2021).

In Edward C. Kaiser paper, User interaction vary across a spectrum from single, unimodal input to multimodal combination delivered either simultaneously or sequentially. Recording, Encoding, and Uploading of the lecture archives are automatically executed by encoder PCs (C.Kaiser, 2022).

CHAPTER 3
PROJECT MANAGEMENT

3.1 Team Management

To complete and present the project in a well manner, we manage a group with four members:

1. Dina Manandhar
2. Niruta Baniya
3. Prashamsa Bakhrel
4. Sushma Karki

Each member has completed the assigned work in allocated time. There is the equal dedication in of workloads for managing resources, coding, debugging, gathering information and documentation.

3.2 Feasibility Study

We found few websites like ours which were previously done as a reference to our project. Here are some feasible

3.2.1 Economical feasibility

It is developed in local host server and was made without any cost. So, it was cost-effective.

3.2.2 Operational feasibility

As per our plan to develop an online classroom web portal, it was possible to develop our project logically by implementing our knowledge of programming knowledge.

3.2.3 Technical feasibility

For the actual development of Lecture Archive, we had knowledge of different programming languages, code editor and the localhost server. So, it was easier to develop the project.

We believe our project is feasible in any regards and it is completed overcoming previous limitations.

3.3 Work breakdown structure

The time we took to complete our project is shown in the following Gantt chart:

Weeks / Work	1st	2nd	3rd	4th	5th	6th	7th	8th	9th	10th	11th	12th	13th
Research and Analysis	■												
Project Design		■											
Implementation			■	■									
Coding and Testing					■	■	■	■	■	■	■	■	■
Deployment										■	■	■	■
Documentation		■	■	■	■	■	■	■	■	■	■	■	■

Figure 3.1 Gantt Chart

CHAPTER 4
METHODOLOGY

4.1 Background

"Lecture Archive" is a web-based project which gives instructors and students an interactive online platform for a new type of learning experience. This project contains necessary materials to students and teachers to provide a digital learning experience. After overviewing this project, we followed traditional water fall model to develop our project.

4.1.1 Requirement analysis

Requirement analysis involves defining, analyzing, validating, and aligning clients' expectations for the projects while considering all possible conflicts. While doing our project, we went through various resources offline and online. Then, we decided to work with PHP programming language along with other related tools. The project was divided among our group members to be completed in specified time.

4.1.2 Project design

Project design is an opportunity to align on ideas, processes and deliverables. Visual aid includes a variety of methods such as E-R diagram and algorithms are used in the project.

4.1.2.1 Algorithm

Step 1: Start.

Step 2: Go to Home page.

Step 3: Login as Student and Faculty separately by providing login username and password.

Step 4: View dashboard and use it to perform different classroom activities.

Step 5: Stop.

4.1.2.2 E-R diagram

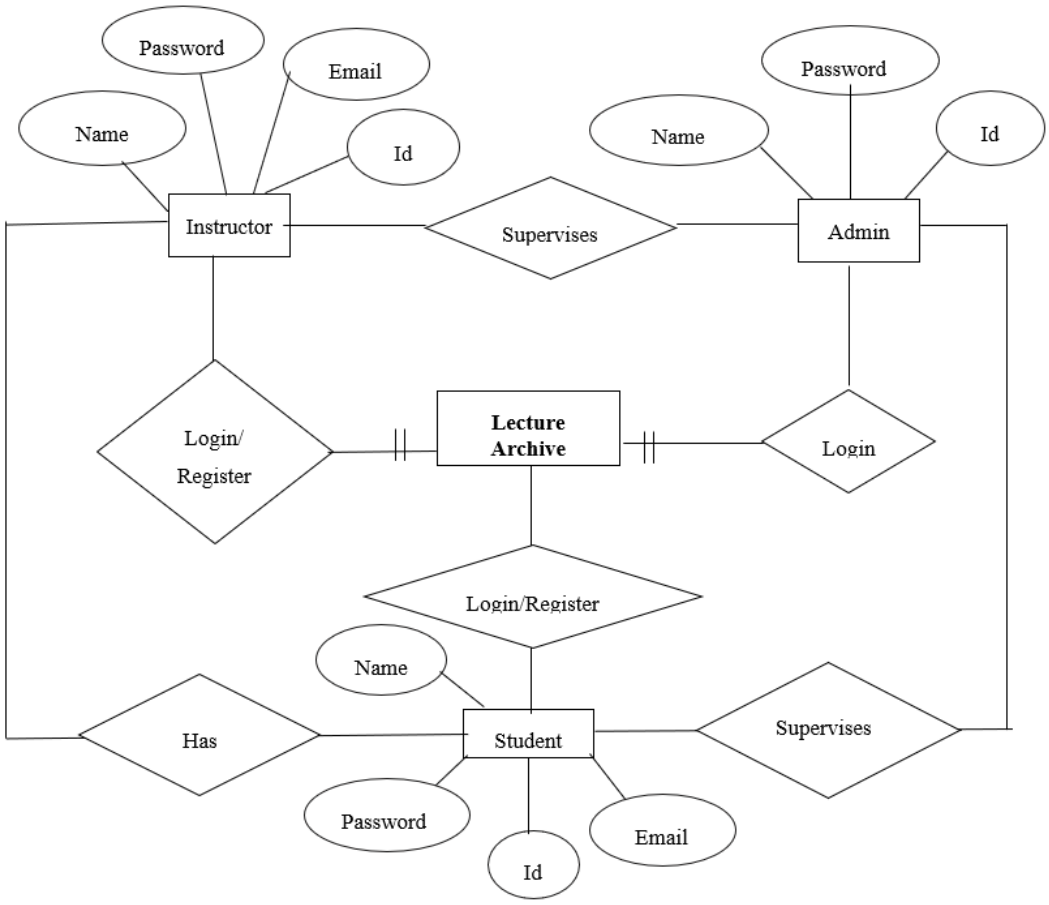


Figure 4. 1 E-R diagram

4.1.3 Implementation

Implementation is the phase where vision and plans become reality. For the implementation of our project, we used different tools as Php, Html, CSS and JavaScript. We used Xampp as a localhost server and visual studio code for developing the project

4.1.4 Testing

Both unit and system testing were done before executing the project. Different parts of the project were tested by individuals of the group. Then again, the program as a whole was evaluated in terms of databases and other desktop devices and found well-efficient.

4.1.5 Deployment

Finally, intact and bug free project was made. The project became smooth and efficient.

4.2 System workflow

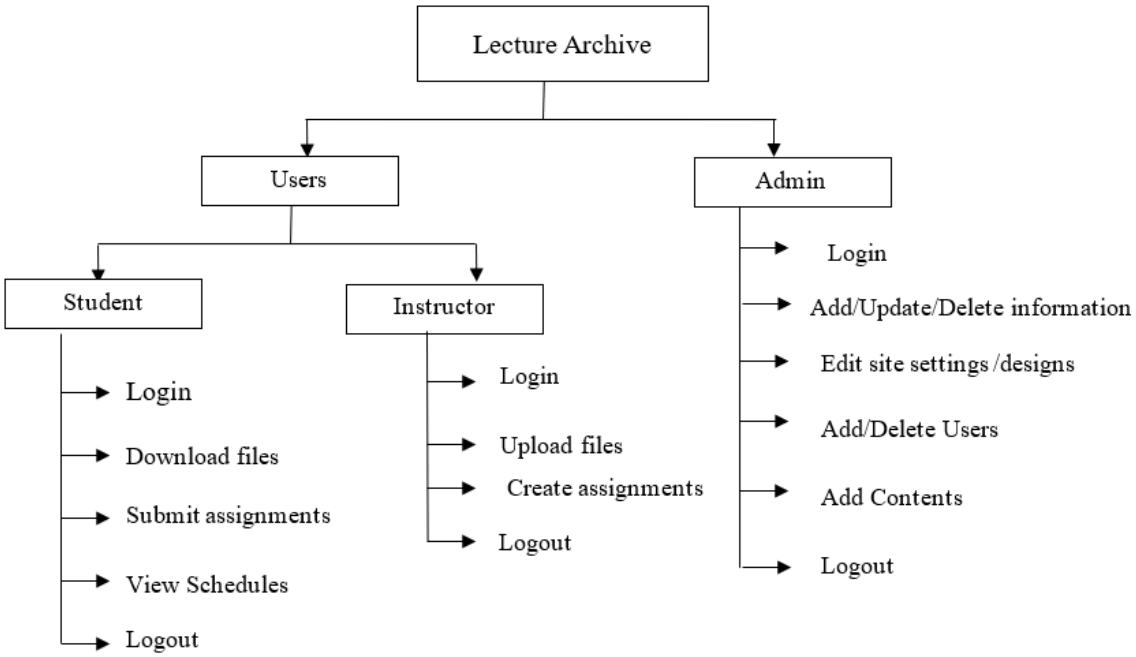


Figure 4.2 Workflow

CHAPTER 5
RESULT AND DISCUSSION

We have completed our project **'Lecture Archive'** an effective environment for conducting an Online Classroom. We used different web designing tools like PHP, HTML, CSS, JavaScript and SQL for the frontend and backend purposes. In this project, we added some new features that were not present in previous projects. In brief, we introduced a user-friendly system.

While working in this project, we were actually able to implement knowledge of programming language. This project has helped us to enhance more knowledge about different types of tools and software development life cycle in a practical way.

CHAPTER 6
CONCLUSION AND RECOMENDATION

We developed **"Lecture Archive"** as our academic project. As there are many sites regarding this but we designed this project for the purpose to provide proper information related to the educational activities performed online. As a whole, this project has been a good learning experience for us and we have gained more knowledge about the Distance Learning. At the same time, we have developed a better understanding about various programming language.

We have made a well-effective learning platform. But it also needs few improvements. There may be some flaws in our developed website. Some of features that we found out that can make our project more qualitative are as follows:

1. Enhance the further website design.
2. To implement the notification systems.
3. To have materials of subjects in respective folders.
4. To have proper collection of class materials in a file.

REFERENCES

[1] *E-PUSTAKALAYA* (2021). Education Based Digital Library.(https://pustakalaya.org/en/). [7/11/2021]

[2] *My second teacher*. (2021, 02). An online learning platform. (https://www.mysecondteacher.com).[12/12/2021]

[3] Michigon and CERN with ATLAS . (2021). *Michigon and CERN with ATLAS* .(ACM digital libaray). https://dl.acm.org/doi/abs/10.1145/985692.985764. [11/01/2022]

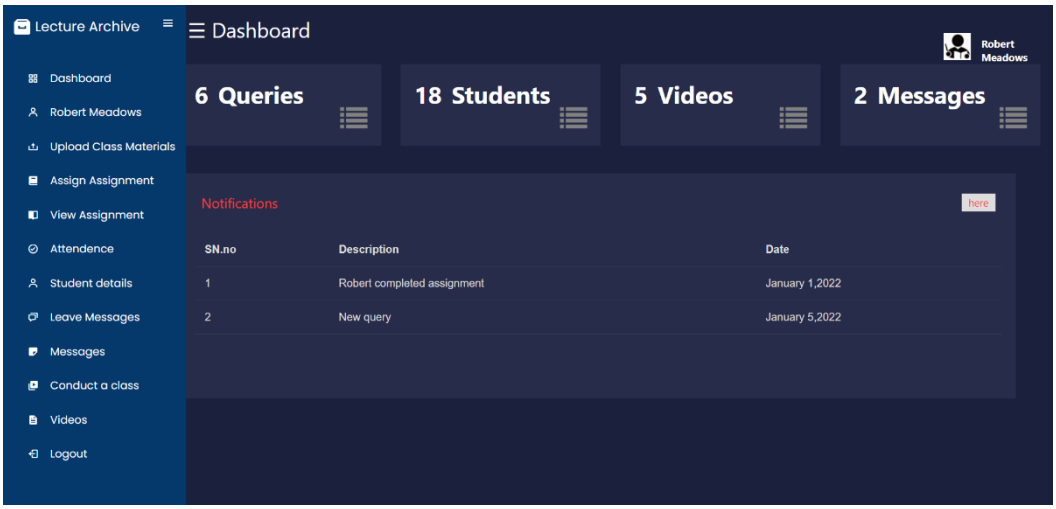
[5] Prince, C. (2021). Craig Prince, Fred Videon . *Craig Prince, Fred Videon* .(IEEE Expert).https://ieeexplore.ieee.org/abstract/document/902994. [13/01/2022]

[6] Richard Arderson. (2021). Richard I Arderson, Crystal Hoyer . *Richard I Arderson, Crystal Hoyer* .(IEEE Expert). https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.567.1754&rep=rep1&type=pdf. [22/01/2022]

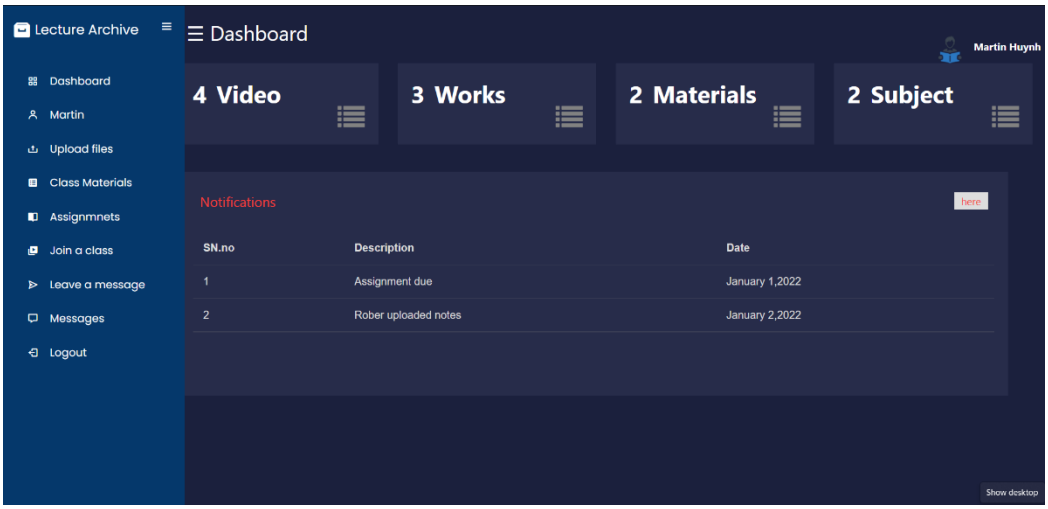
APPENDIX

Appendix A: Front page

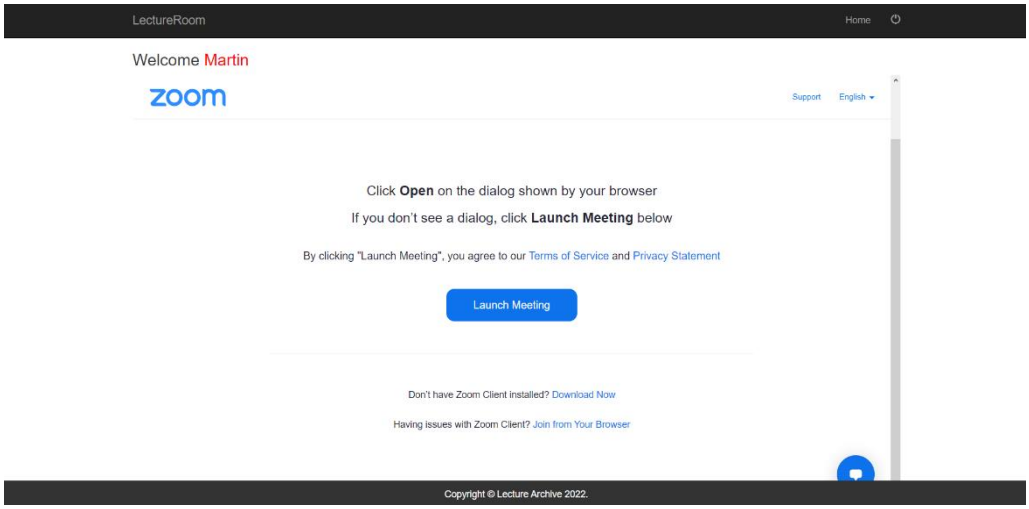
Appendix B: Faculty dashboard



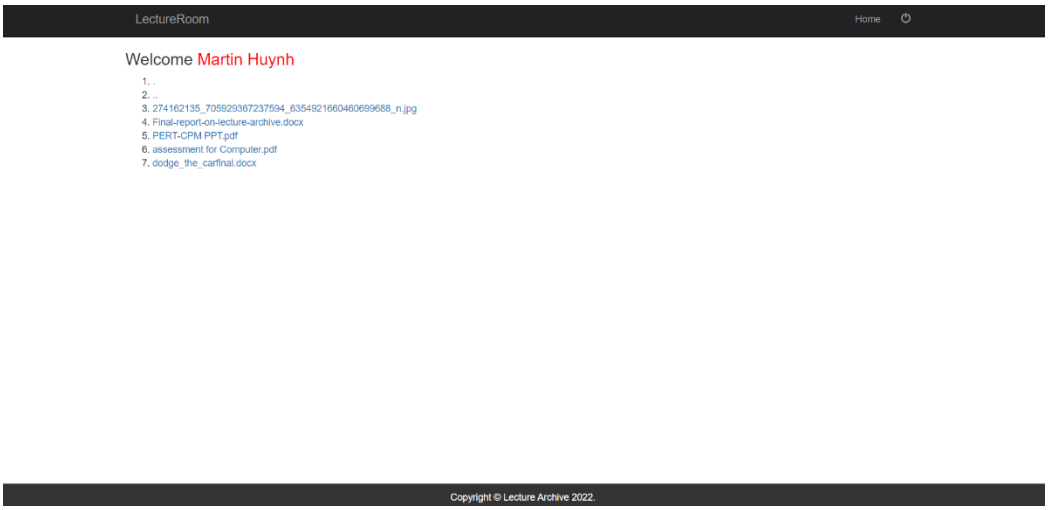
Appendix C: Student dashboard



Appendix D: Join a class



Appendix E: Files



Appendix F: Query box