# **GLA UNIVERSITY**

# **Institute of Engineering & Technology**



# E-Learning (Web Based Learning System) Mid-Term Report

# By

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# Book Report E-Learing Website



#### **DECLARATION**

We certify that the work contained in this report is original and has been done by us under the guidance of my supervisor(s).

- a. The work has not been submitted to any other Institute for any degree or diploma.
- b. We have followed the guidelines provided by the Institute in preparing the report.
- c. We have conformed to the norms and guidelines given in the Ethical Code of Conduct of the Institute.
- d. Whenever we have used materials (data, theoretical analysis, figures, and text) from other sources, we have given due credit to them by citing them in the text of the report and giving their details in the references.

#### Name and Signature of Project Team Members:

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# **GLA University, MATHURA**



# **CERTIFICATE**

Certified that the project report entitled, "E-Learning (web based learning system)" is a bonafide work done under my guidance by Anubhav Bhardwaj, Amit Kumar Chaudhary, Vibhaw Kumar, Abhishek

Date://	Sign. Of mentor

# **ACKNOWLEDGEMENT**

We have immense pleasure in expressing our sincerest and deepest sense of gratitude towards our Mentor Mr. Akash Kumar Chaudhary for the assistance, valuable guidance and co- operation in carrying out this Project successfully. We have developed this project with the help of Faculty members of our institute and we are extremely grateful to all of them. We also take this opportunity to thank Head of the Department Prof. Anand Singh Jalal, for providing the required facilities in completing this project. We are greatly thankful to our parents, friends and faculty members for their motivation, guidance and help whenever needed.

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# About the Project

"The. Purpose of this Project is to develop a front-end E-Learning Website and that website helps the student to learn the New and Trending Courses Free of Cost and also they can revise the previous course content that are so much demand in Market."

In this Website Different there are so many courses with their respective Category and Student can easily find out His/her courses that are available and one and most imp. Feature that is if any Courses is not available on Website Then Student can send us his/her query and got the info. That courses is available in near time or not.

We also Design a Blog Page in this Website from where Student can read the trending Article that we Publish and Student can also send his/her article for publishing with their Name.

# Motivation and Future Prospects

From Starting of this year we are in our College but From month of March when Pandemic Start in the Whole world then so many College/Schools Students are not available to go to their school/college due to Lockdown due to Pandemic and this situation affect the carrier of students because of Suddenly stop of their regular Education so we think to work on it by which students can regularly gain the knowledge from Home from this Website Free of Cost.

- During this Lockdown many Intermediate/High school don't have any platform from where they can provide the best material for Students in Video/Pdf Format.
- After Passing the Govt. New Education Policy we are confirmed that our new Generation is now required this such kind of Platform from where they can enroll and Learn All the Trending Technologies that he/she needed inside near Future.

# Future Prospects:

Education is a constantly evolving sector with it, the challenges come in bountiful. But the best part is, there is always a room for improvement.

- Distance Education
- Online Learning
- Interactive Learning Models

# Requirements:

# a) Technology Used:

- HTML
- CSS
- JavaScript 3<sup>rd</sup> Party Library

#### b) Software:

- WebStorm for Front-End
- Xampp for Apache Server
- Chrome for Inspect Layout
- Photoshop for Graphics

# c) Hardware Required:

• A Laptop

#### d) Research for Content

- YouTube
- Edureka
- Coursera
- Udemy
- K21 Academy

Chapter-1 Introduction

#### Introduction of the Project E-learning Website

The "E-learning Website" has been developed to override the problems prevailing in the practicing manual system. This software is supported to eliminate and in some cases reduce the hardships faced by this existing system. Moreover this system is designed for the particular need of the company to carry out operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus by this all it proves it is user-friendly. E- Learning Webiste, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources.

Every organization, whether big or small, has challenges to overcome and managing the information of Student, Assignment, QUIZ, CLASS, and QUESTION. Every E-learning Webiste has different Assignment needs, therefore we design exclusive employee management systems that are adapted to your managerial requirements. This is designed to assist in strategic planning, and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executive who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

# 1.1 Abstract of the Project E-learning Website:

The purpose of E-learning Management System is to automate the existing manual system by the help of computerized equipment's and full-fledged computer software, fulfilling their requirements, so that their valuable data/information can be stored for a longer period with easy accessing and manipulation of the same. The required software and hardware are easily available and easy to work with. E-learning Management System, as described above, can lead to error free, secure, reliable and fast management system. It can assist the user to concentrate on their other activities rather to concentrate on the record keeping. Thus it will help organization in better utilization of resources. The organization can maintain computerized records without redundant entries. That means that one need not be distracted by information that is not relevant, while being able to reach the information.

# Functionalities provided by E-learning Management System:

Provides the searching facilities based on various factors. Such as Assignment,

- You are write your Own Article on our Blog Page.
- Here, you can Learn Different Fields of Courses.
  - Development
  - Design
  - Business
  - Photography
  - Marketing
- Here, You can connect to the Community of same field of Interest Students so you can go deep-dive to that particular filed.
- 24/7 Learning Facility Available
  - E.g. Pre-recorded Lecture, Interaction with Teacher and Students on Chat.

# 1.2 Scope of the Project E-learning Website:

It may help collecting perfect management in details. In a very short time, the collection will be obvious, simple and sensible. It will help a person to know the management of passed year perfectly and vividly. It also helps in current all works relative to E-learning Management System. It will be also reduced the cost of collecting the management & collection procedure will go on smoothly.

Our project aims at Community process automation, i.e. we have tried to computerize various processes of E-learning Management System.

- In computer system the person has to fill the various forms & number of copies of the forms can be easily generated at a time.
- In computer system, it is not necessary to create the manifest but we can directly print it, which saves our time.
- To assist the staff in capturing the effort spent on their respective working areas.
- To utilize resources in an efficient manner by increasing their productivity through automation.
- The system generates types of information that can be used for various purposes.
- It satisfy the user requirement
- Be easy to understand by the user and operator
- Be easy to operate Have a good user interface
- Be expandable
- Delivered on schedule free of cost.

# 1.3 Modules of the Project E-learning Website:

- CLASS MODULE: Used for managing the details of CLASS
- LOGIN MODULE: Used for managing the login details
- REGISTRATION MODULE: Used for managing the users registration of the system
- Users Module: Used for managing the users of the system
- Courses Module: From this module you can enroll your Course Category wise and Start Learning
- BLOG MODULE: Here you can Write your Blog and Send the Approval Request to Admin so that he/she can check and publish your blog.
- CONTACT: If you are feeling any issue than you can easily get in touch with Core team.

#### Focused Modules:

#### • Registration:

In this, first the interested students get registered by selecting their desired username and password and by providing the necessary details.

Then each user profile will be maintained which can be edited by the user when desired. Each person will register only one time. Details of each person along with their username and password is saved permanently in the database.

#### Login:

After providing the correct username and password, the user log's in to the e-Learning system's homepage. There the user can select the available subjects to further learn about them. If user enter wrong username or password then they block their account temporary and after some security verification they will able to access their account.

#### Homepage:

After providing the correct username and password, the user log's in to the e-Learning Website's homepage. Here at the homepage there are many choice for user to learn different Category of COurses like Development, Business, Design, Photography, Marketing etc.

User can take following helps:-

- Tutorials about the Courses.
- View programs of Different Category of.
- ❖ You can send your Query to your Teacher.
- Download notes and programs.

# 2.1 Software Requirement Specification

The Software Requirements Specification is produced at the culmination of the analysis task. The function and performance allocated to software as part of system engineering are refined by establishing a complete information description, a detailed functional and behavioral description, an indication of performance requirements and design constraints, appropriate validation criteria, and other data pertinent to requirements.

# 2.2The Proposed System has following requirements:

- System needs store information about new entry of Assignment.
- System needs to help the internal staff to keep information of Student and find them as per various queries.
- System need to maintain quantity record.
- System need to keep the record of TEACHER.
- System need to update and delete the record.
- System also needs a search area.
- It also needs a security system to prevent data

Chapter-3 Analysis & Design

# 3.1 System Design of E-learning Website:

In this phase, a logical system is built which fulfils the given requirements. Design phase of software development deals with transforming the client's requirements into a logically working system. Normally, design is performed in the following in the following two steps:

#### 1. Primary Design Phase:

In this phase, the system is designed at block level. The blocks are created on the basis of analysis done in the problem identification phase. Different blocks are created for different functions emphasis is put on minimizing the information flow between blocks. Thus, all activities which require more interaction are kept in one block

# 2. Secondary Design Phase:

In the secondary phase the detailed design of every block is performed.

# General task involved in the design process are following:

- a) Design various blocks for overall system processes.
- b) Design smaller, compact and workable modules in each block.
- c) Design registration and login database.
- d) Specify details of programs to achieve desired functionality.
- e) Design the form of inputs, and outputs of the system.
- f) Perform documentation of the design.
- g) System reviews.
- h) Attach different Study Materials.

# 3.2Project Planning

Software project plan can be viewed as the following:

#### 1) Within the organization:

How the project is to be implemented?

What are various constraints (time, cost, and staff)? What is market strategy?

#### 2) With respect to the customer:

Weekly or timely meetings with the customer with presentation on status reports. Customer's feedback is Also taken and further modification and developments are done. Project milestones and deliverables are Also presented to the customer.

# For a successful software project the following steps can be followed:

- > Select a project
  - Identifying project's aims and objectives.
  - Understanding requirements and specification
  - ❖ Methods Of analysis, design and implementation
  - Testing techniques
  - Documentation
- Project milestones and deliverables
- Budget allocation
  - Cost
  - Time
  - **❖** Size of code
  - Duration

- Project Estimates
- Resource Allocation
  - Hardware
  - **❖** Software
  - Previous relevant project information
  - ❖ Digital Library
- Risk Management
  - \* Risk avoidance
  - Risk detection

# **Project Scheduling**

An elementary Gantt chart or Timeline chart for the development plan is given below. The plan explains the tasks versus the time (in weeks) they will take to complete

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#### **Project Profile**

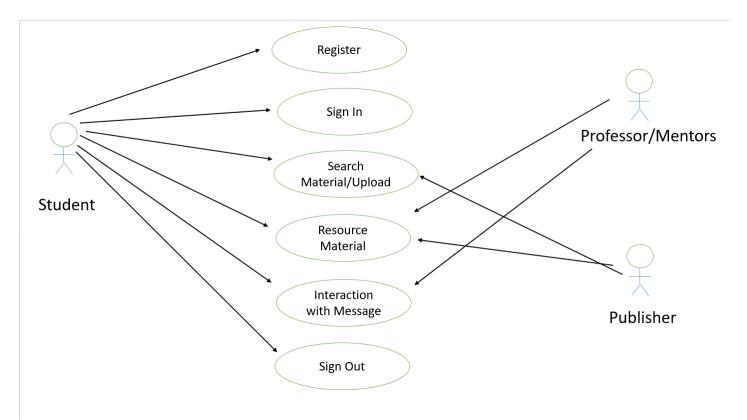
There has been continuous effort to develop tools, which can ease the process of software development. But, with the evolving trend of different programming paradigms today's software developers are really challenged to deal with the changing technology. Among other issues, software re-engineering is being regarded as an important process in the software development industry. One of the major tasks here is to understand software systems that are already developed and to transform them to a different software environment. Generally, this requires a lot of manual effort in going through a program that might have been developed by another programmer.

This project makes a novel attempt to address the issue of program analysis and generation of diagrams, which can depict the structure of a program in a better way. Today, UML is being considered as an industrial standard for software engineering design process. It essential provides several diagramming tools that can express different aspects/ characteristics of program such as

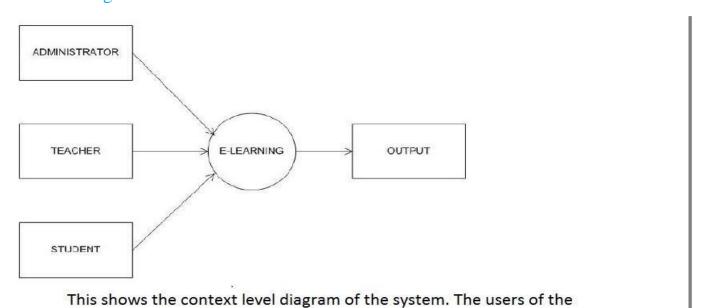
- ➤ Use cases: Elicit requirement from users in meaningful chunks. Construction planning is built around delivering some use cases n each interaction basis for system testing.
- Class diagrams: shows static structure of concepts, types and class. Concepts how users think about the world; type shows interfaces of software components; classes shows implementation of software components.
- > State diagram: show how single object behaves across many use cases.
- Activity Diagram: shows behavior with control structure. Can show many objects over many uses, many object in single use case, or implementation methods encourage parallel behavior etc. The end-product of this project is a comprehensive tool that can parse any vb.net program and extract most of the object oriented features inherent in the program such as polymorphism, inheritance, encapsulation and abstraction.

#### Use Case Model of the Project

- > The use case model for any system consists of "use cases". Use cases represent different ways In which the system can be used by the user. A simple way to find all the use case of a system is to ask the questions "What the user can do using the system?" The use cases partition the system behavior into transactions such that each transaction performs some useful action from the users' point of view.
- > The purpose of the use case to define a piece of coherent behavior without revealing the internal structure of the system. A use case typically represents a sequence of interaction between the user and the system. These interactions consists of one main line sequence is represent the normal interaction between the user and the system. The use case model is an important analysis and design artifact (task). Use cases can be represented by drawing a use case diagram and writing an accompany text elaborating the drawing
- ➤ In the use case diagram each use case is represented by a Front-end with the name of use case written inside the Webstrom. All the Webstrom of the system are enclosed with in a rectangle which represents the system boundary. The name of the system being module appears inside the rectangle. The different users of the system are represented by using creation of table inside table. The stick person icon is normally referred to as an Actor. The line connecting the actor and the use cases is called the communication relationship. When a stick person icon represents an external system it is annotated by the stereo system



# Work Flow Diagram



system are administrator, teachers and students.

Chapter-4 Construction

#### 4.1 Implementation and Software Specification Testing:

#### > Detailed Design of Implementation:

This phase of the systems development life cycle refines hardware and software specifications, establishes programming plans, trains users and implements extensive testing procedures, to evaluate design and operating specifications and/or provide the basis for further modification.

#### > Technical Design:

This activity builds upon specifications produced during new system design, adding detailed technical specifications and documentation.

#### > Test Specifications and Planning:

This activity prepares detailed test specifications for individual modules and programs, job streams, subsystems, and for the system as a whole.

#### 4.2 Programming & Testing:

This activity encompasses actual development, writing, and testing of program units or modules.

#### **➤** User Training

This activity encompasses writing user procedure manuals, materials, conducting training programs, and testing procedures

#### > System Installation

The process of starting the actual use of a system and training user personnel in its operation.

#### > Review Phase

This phase evaluates the successes and failures during a systems development project, and to measure the results of a new Computerized Tran system in terms of benefits and savings projected at the start of the project.

#### > Development Recap

A review of a project immediately after completion to find successes and potential problems in future work

#### The unit testing done included the testing of the following items

- 1) Functionality of the entire module/forms.
- 2) Validations for user input
- 3) Checking of the Coding standards to be maintained during coding
- 4) Testing the module with all the possible test data.
- 5) Testing of the functionality involving all type of calculations etc.
- 6) Commenting standard in the source files.

After completing the Unit testing of all the modules, the whole system is integrated with all its dependencies in that module. While System Integration, We integrated the modules one by one and tested the system at each step. This helped in reduction of errors at the time of the system testing.

#### **4.3** Existing System of E-learning Management System:

In the existing system the exams are done only manually but in proposed system we have to computerize the exams using this application.

Lack of security of data.

More man power

Time consuming.

Consumes large volume of pare work

Not Course Enroll Facility

# **4.4** Proposed System of E-learning Management System:

The aim of proposed system is to develop a system of improved facilities. The proposed system can overcome all the limitations of the existing system. The system provides proper security and reduces the manual work.

- > Security of data.
- > Ensure data accuracy's.
- > Proper control of the higher officials.
- > Minimize manual data entry.
- > Minimum time needed for the various processing.

- > Greater efficiency.
- > Better service.
- > User friendliness and interactive.
- > Minimum time required

# 4.5 Description of Technology Used

#### WebStrom:

WebStrom is an integrated development environment (IDE) used in computer programming and it is the most widely used Front-end. It contains a base workspace and an extensible plug-in system for customizing environment. Webstrom is written mostly in Java and its primary use is for developing Front-end applications.

#### HTML:

HTML is the standard markup language for creating Web pages. HTML stands for Hyper Text Markup Language. HTML describes the structure of Web pages using markup. HTML elements are the building blocks of HTML pages. HTML elements are represented by tags.

#### CSS:

Cascading Style Sheets (CSS) is a style sheet language used for describing the presentation of a document written in a markup language.

# JavaScript:

JavaScript is a lightweight, interpreted programming language. It is designed for creating network-centric applications. It is complimentary to and integrated with Java.

JavaScript is very easy to implement because it is integrated with HTML. It is open and cross-platform

# **5.1** Conclusion of the Project E-learning Management System

Our project is only a humble venture to satisfy the needs to manage their project work. Several user friendly coding have also adopted. This package shall prove to be a powerful package in satisfying all the requirements of the school. The objective of software planning is to provide a frame work that enables the manger to make reasonable estimates made within a limited time frame at the beginning of the software project and should be updated regularly as the project progresses.

#### At the end it is concluded that we have made effort on following points...

- A description of the background and context of the project and its relation to work already done in the area.
- Made statement of the aims and objectives of the project.
- The description of Purpose, Scope, and applicability.
- We &fine the problem on which we are working in the project.
- We describe the requirement Specifications of the system and the actions that can be done on these things.
- We understand the problem domain and produce a model of the system, which describes operations
  that can be performed on the system.
- We included features and operations in detail, including screen layouts.
- We designed user interface and security issues related to system.

Finally the system is implemented and tested according to test cases

# 5.2 Future Scope Of Project

In a nutshell, it can be summarized that the future scope of the project circles around maintaining information regarding:

- We can add printer in future.
- We can give more advance software for E-learning Management System including more facilities
- We will host the platform on online servers to make it accessible worldwide
- Integrate multiple load balancers to distribute the loads of the system
- Create the master and slave database structure to reduce the overload of the database queries
- Implement the backup mechanism for taking backup of codebase and database on regular basis on different servers

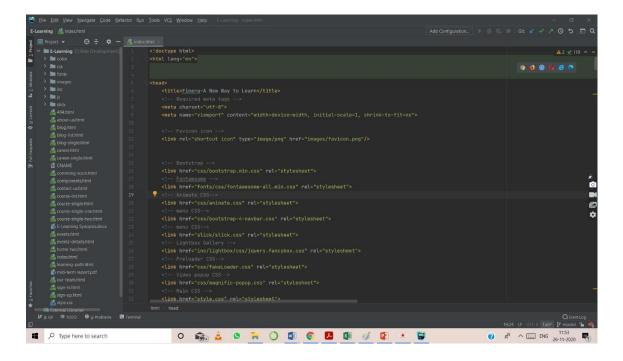
The above mentioned points are the enhancements which can be done to increase the applicability and usage of this project. Here we can maintain the records of Assignment and Student. Also, as it can be seen that now-a-days the players are versatile, i.e. so there is a scope for introducing a method to maintain the E-learning Management System. Enhancements can be done to maintain all the Assignment, Student, TEACHER, QUIZ, and QUESTION.

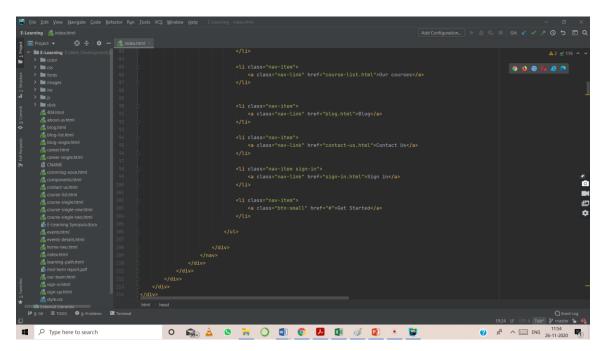
We have left all the options open so that if there is any other future requirement in the system by the user for the enhancement of the system then it is possible to implement them. In the last we would like to thanks all the persons involved in the development of the system directly or indirectly. We hope that the project will serve its purpose for which it is develop there by underlining success of process.

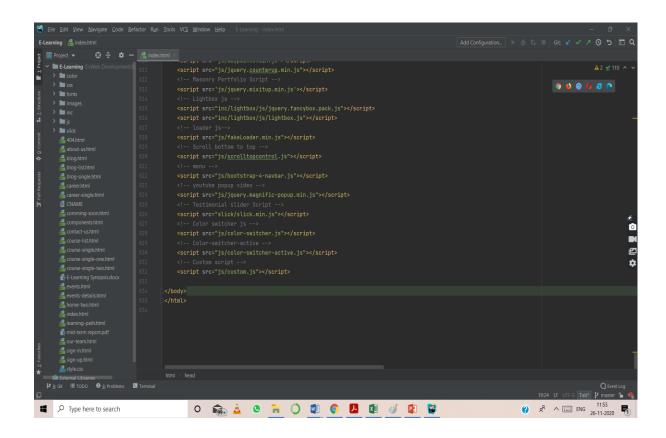
Code and Snapshots

# Chapter-6

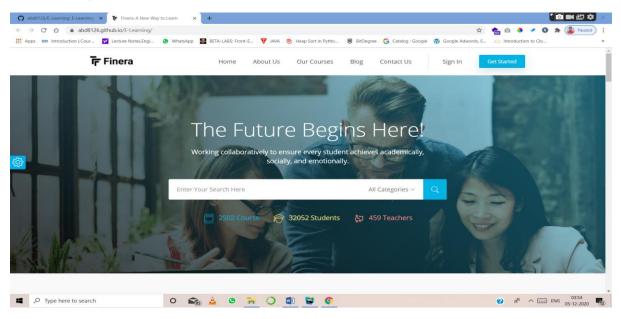
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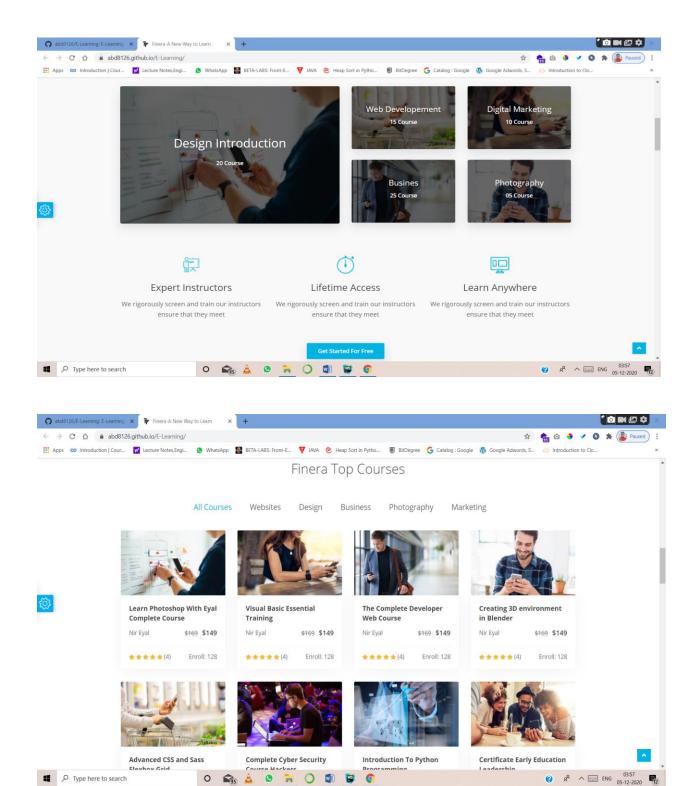




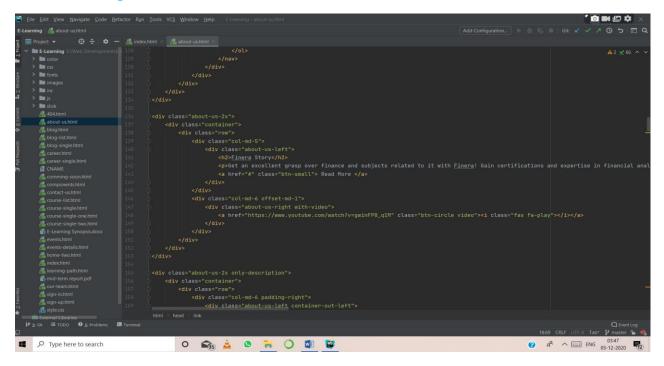


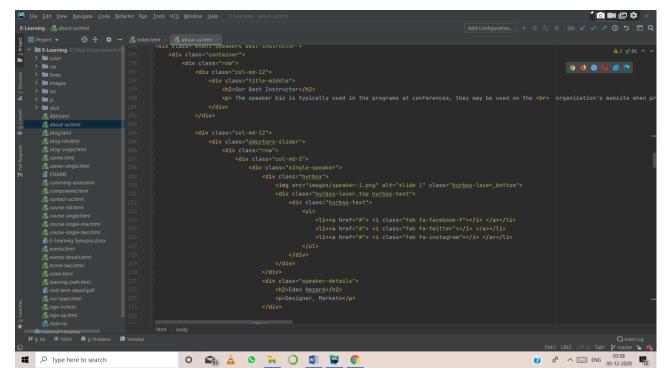
# **Index Page View**

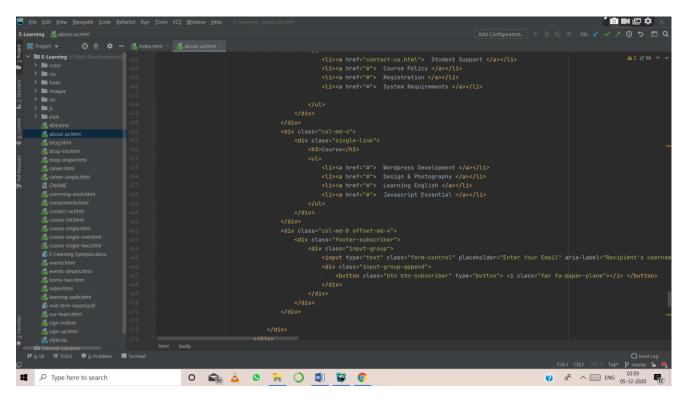




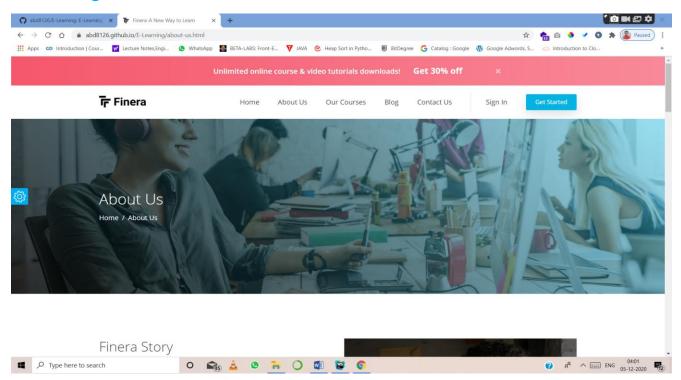
# About Us Page:

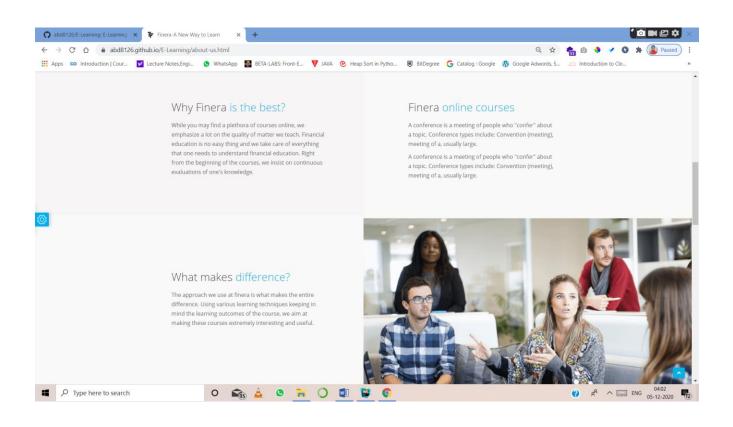


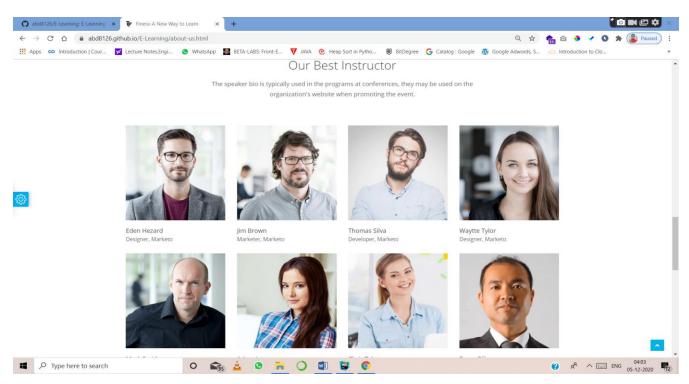




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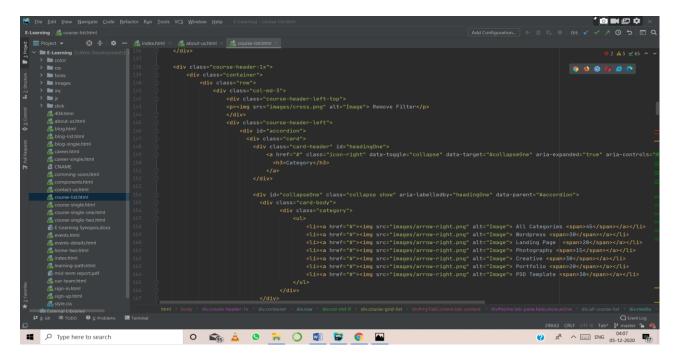


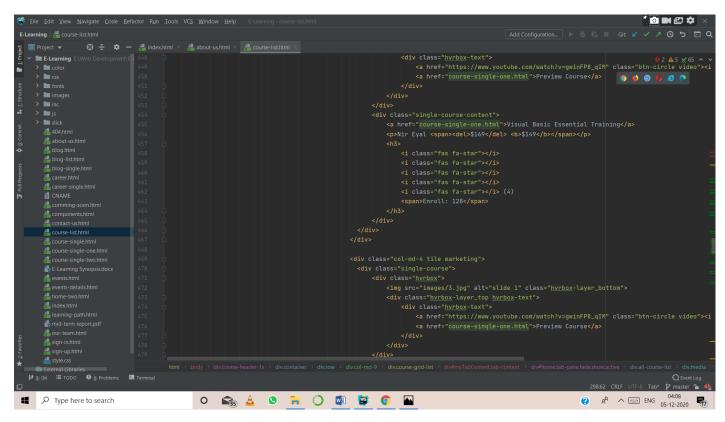




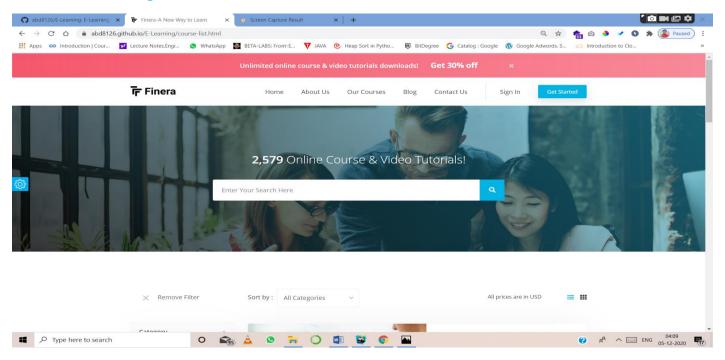
# Our Courses Page:

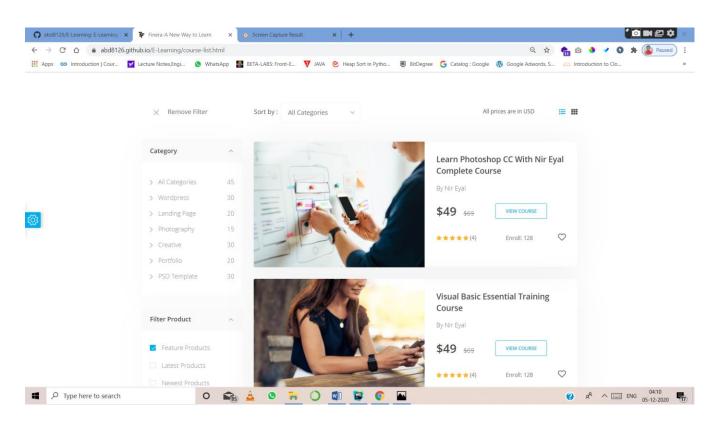
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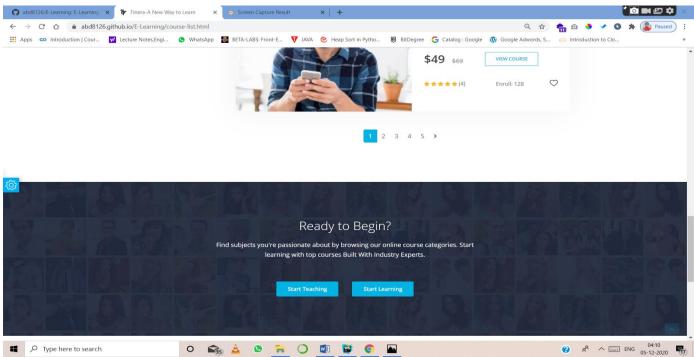




# Our Courses Page View







# Live Url of Website:

https://abd8126.github.io/E-Learning/

