LEARNEST
A Courses portal for a campus or University

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Abstract

This project aims at creating a Courses portal for a campus or University. This allows registered users of the system to access the materials (Video lectures and related documents) published for their course. People can register themselves as students of a course or Faculty. When a person registers himself as a Faculty, an approval mechanism should be triggered which sends an email to the Administrator for approving the person as a Faculty. There will be an admin approval page where admin can approve the faculty members.

The course home page should contain the title of the course and a brief description. There will be an announcement section, which contains the latest announcements, and a course content section which gives the links for the material available for the course. For faculty members there will be an extra link for uploading the course content. There will be a mechanism for the faculty members to create a test for the course specifying the test title and a set of multiple-choice questions and duration of time of the test.

Keywords: Portal, Courses, Tests, University

1. INTRODUCTION

This project titled **Learnest** for a University is a web based application for the online implementation which can be used for a campus or University for proving it for usage by all the people means to use it at any moment and at any time from any place.

The project serve administrator to view the details of faculty and students and maintain their database in an efficient and effective manner so that their maintenance will be easy.

The services providing for administrator are approving the faculty, maintain the personal details of faculty and students, add/delete the courses, activate the exam paper for a test, and view feedbacks.

The services provided to the faculty are the faculty can view and update their personal details, add a course, upload or delete the content (Video lectures and related documents) for a course, conduct a test for the students, and places key and results of a test, view their messages and reply to the students.

The services provided to the students are view and update their details, view and download the content of a course, like and comment on the content, take a test and view the key and result of an exam, give feedback to the admin or faculty.

2. PROBLEM DOMAIN

Knowledge and information access has been improvised with time in the past few years. Think of the days when learners had to browse through hefty manuscripts to get detailed information about a particular topic. Then people started using the internet and had to browse numerous websites to quench their thirst for the knowledge and data that they were looking for and getting the right information from the right source to the target audience still remains a challenge even in this highly sophisticated ultra-modern technology laden era.

Furthermore, attending each and every class is something which is not always possible due to various reasons. Even if it is, it does not ensure long term retention of the content.
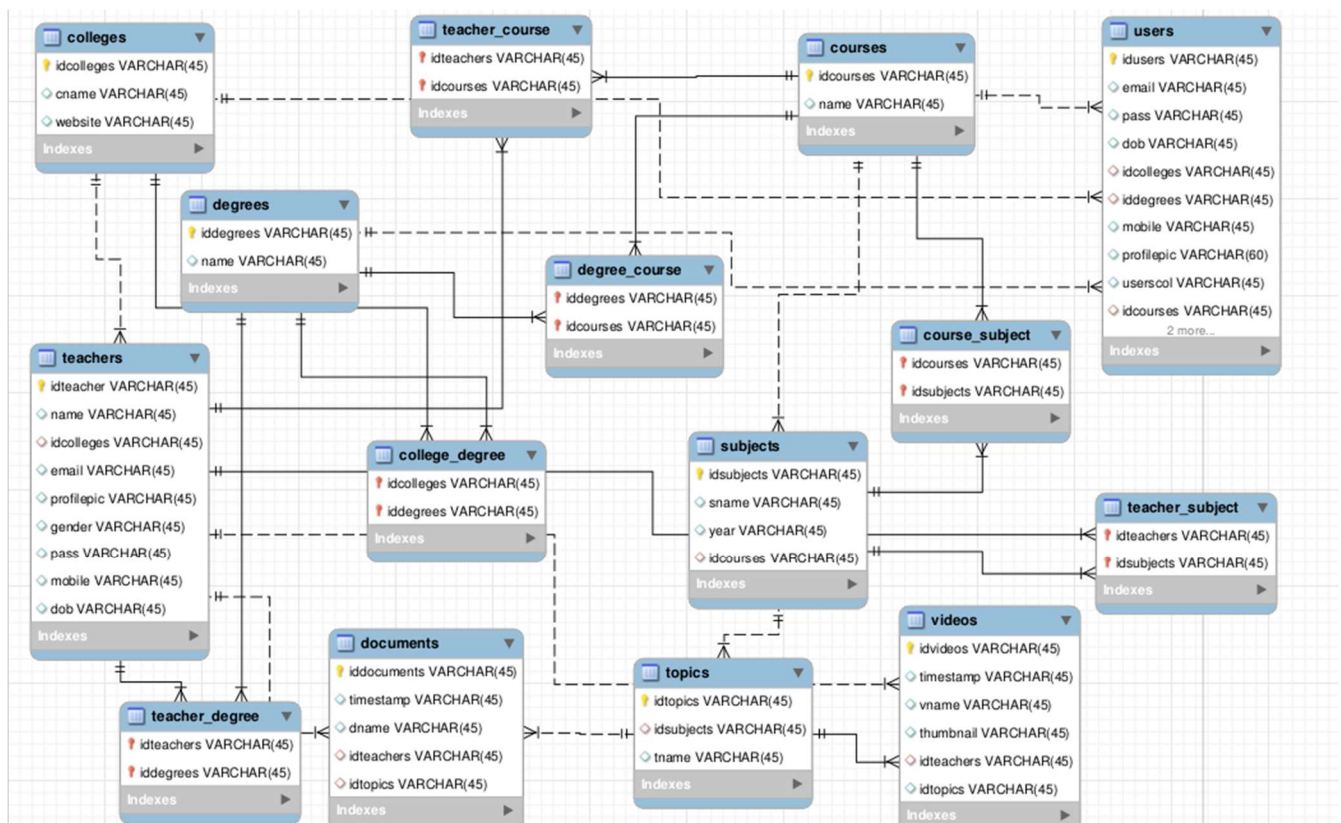
3. SOLUTION DOMAIN

Through our website one can easily find and access the exact content one needs to find related to their course which can provide the knowledge one needs. It will also help in saving the valuable time of the students which could be used in doing several productive things.

After attending a traditional classroom lecture it is not possible for everyone to remember each and every tiny detail about the lecture, but if those lectures are recorded and made available to each and every student and can be accessed at any point of time then this will solve the problem.

Once the material (documents, lectures and ppts) is uploaded, the faculty need not to upload the same content again and again each year. This will also smoothen the process of distributing the files among the students.

EER Diagram

4. SYSTEM DOMAIN

Software and Hardware Requirement

Type	Software	Hardware
Client Machine	1. Browser(IE9 and above) 2. Pdf reader(Adobe Reader) 3. Document Viewer(MS Office) 4. Media Player(VLC) 5. Adobe Flash Player	1. P-4 2. RAM -256 MB
Database Server	1. PHP Server 2. MySQL 5 database. 3. PHPMyAdmin.	1.P-4 2.RAM- 2GB 3.Hard Disk-160GB
Development Machine	1. PHP Server 2. MySQL 3. IDE(Brackets) 4. Browser	1.I-3 2.RAM- 2GB 3.Hard Disk-40GB

Development Tools and Technologies

Front End

1. **Angular JS**

   Why Angular JS?

   AngularJS is a structural framework for dynamic web apps. It lets you use HTML as your template language and lets you extend HTML's syntax to express your application's components clearly and succinctly. Angular's data binding and dependency injection eliminate much of the code you would otherwise have to write. And it all happens within the browser, making it an ideal partner with any server technology.

   Angular is what HTML would have been, had it been designed for applications. HTML is a great declarative language for static documents. It does not contain much in the way of creating applications, and as a result building web applications is an exercise in what do I have to do to trick the browser into doing what I want?

   Advantages of AngularJS

   - AngularJS provides data binding capability to HTML thus giving user a rich and responsive experience
   - AngularJS provides capability to create Single Page Application in a very clean and maintainable way.
   - AngularJS code is unit testable.
   - AngularJS uses dependency injection and make use of separation of concerns.

- AngularJS provides reusable components.

- With AngularJS, developer write less code and get more functionality.

- In AngularJS, views are pure html pages, and controllers written in JavaScript do the business processing.

On top of everything, AngularJS applications can run on all major browsers and smart phones including Android and iOS based phones/tablets.

Back End

1. **PHP**
PHP is an acronym for "PHP: Hypertext Preprocessor". It is a widely-used, open source scripting language. PHP scripts are executed on the server. It is free to download and use. PHP can generate dynamic page content. PHP is a server side scripting language that is embedded in HTML. It is used to manage dynamic content, databases, session tracking, even build entire e-commerce sites. It is integrated with a number of popular databases, including MySQL, PostgreSQL, Oracle, Sybase, Informix, and Microsoft SQL Server.

Why PHP?
Five important characteristics make PHP's practical nature possible −

- Simplicity

- Efficiency

- Security

- Flexibility

- Familiarity

2. MySQL

Why MySQL?
MySQL is a fast, easy-to-use RDBMS being used for many small and big businesses. MySQL is developed, marketed, and supported by MySQL AB, which is a Swedish company. MySQL is becoming so popular because of many good reasons:

- MySQL is released under an open-source license. So you have nothing to pay to use it.

- MySQL is a very powerful program in its own right. It handles a large subset of the functionality of the most expensive and powerful database packages.

- MySQL uses a standard form of the well-known SQL data language.

- MySQL works on many operating systems and with many languages including PHP, PERL, C, C++, JAVA, etc.

- MySQL works very quickly and works well even with large data sets.

- MySQL is very friendly to PHP, the most appreciated language for web development.

- MySQL supports large databases, up to 50 million rows or more in a table. The default file size limit for a table is 4GB, but you can increase this (if your operating system can handle it) to a theoretical limit of 8 million terabytes (TB).

- MySQL is customizable. The open-source GPL license allows programmers to modify the MySQL software to fit their own specific environments.

5. APPLICATION DOMAIN
Our website aims to give access of material (notes, ppts, videos) of various subjects of different domains to the students helping them to understand and learn the subject from anywhere and anytime. The recorded lectures helps students to revise a specific topic any number of times, also different files can be downloaded related to the topic and faculty only need to upload the documents one time reducing the overhead of solving the doubts of the students.

6. EXPECTED OUTCOME
After the completion of website students will be able to-
1. Access materials from anywhere and anytime.
2. Download documents from website.
3. Search different topics or courses.
4. Watch videos of different topics.
5. Communicate with the faculties.
6. Faculties will be able to upload materials.
7. System administrator will be able to add new colleges and courses.

References:
The reference must be completely mentioned in the list and cite in the text of the synopsis above. There should be at least 10 latest references. Formats (it is just like IEEE style) are as under:
[1] https://angularjs.org/
[2] http://www.w3schools.com/
[3] https://secure.php.net/