ISLAMIC UNIVERSITY, KUSHTIA-7003

Department of Computer Science & Engineering

PROJECT

ON

Internet-Based Learning System (Server Side Application)

Md. Nafiz Kamal

Roll: 1414004

Reg: 1123

Session: 2014-2015

Email:nafizkamal11@gmail.com

Department of Computer Science & Engineering

Supervisor

Md. Farukuzzaman Khan

Professor

Department of Computer Science & Engineering

FACULTY OF ENGINEERING & TECHNOLOGY

Certificate

I hereby declare that this project report is based on my original work except for citations and quotations which have been duly acknowledged. I also declare that it has not been previously and concurrently submitted for any other degree or award at Islamic University, Bangladesh.

Signature : _____

Name : _____

Date : _____

SUPERVISOR

I the undersigned do hereby certify that this is a true report for the project undertaken by the above-named student under my supervision and that it has been submitted to Islamic University with my approval.

Signature…….Date…….

ACKNOWLEDGMENT

I would like to thank everyone who had contributed to the successful completion of this project.

I would like to express my gratitude to my research supervisor, Prof. Md. Farukuzzaman Khan for his invaluable advice, guidance, and his enormous patience throughout the development of the research.

In addition, I would also like to express my gratitude to my loving parents and friends who had helped and given me encouragement.....

Md. Nafiz Kamal

March 2020

Table of Content

Chapter One

Introduction

1.1 Introduction

The **internet-based learning system** or edublog is a growing concept in the education sector. An edublog is a blog (a truncation of "weblog") created for educational purposes. It helps create connections between students with diverse opinions and interests. This encourages critical thinking and teaches the value of respect towards other students. Also, teachers may benefit from the possibility of monitoring projects in real-time, thus indicating improvements before it is too late for the students to incorporate them.

This project is undertaken to develop a system that can be used to maintain and operate any medium and any large scale university, college very efficiently through information management. It archives and supports student and teacher learning by facilitating reflection, questioning by self and others, collaboration, and by providing contexts for engaging in higher-order thinking.

1.2 Background of the Study

Recent decades have witnessed a growing awareness of the role of using technology in teaching writing and a number of technology-based teaching applications have been developed (Tekinarslan,2008 & Noytim, 2010). A basic assumption behind the efficacy of technology in teaching is that it creates a non-verbal communication opportunity for learners (Vinagre, 2005). Some scholars suggest that digital fluency will be another prerequisite for sociability, lifelong learning, and employment opportunities (Resnick, 2002). As such, using educational technologies have a two-fold advantage: They can promote the types of literacy traditionally encouraged in learning, as well as the digital fluency needed to prosper in the digital age.

1.3 Problem Statement(s)

Using technology and varied methods of distribution, educators and trainers can effectively teach a wide range of subject matter, reach a larger audience and allow those who may not

have the ability to attend a formal classroom setting to experience this in a personal computing environment.

Higher Education Institutions use e-learning tools. This way, the teaching-learning process can continue outside the classroom. features (linking, replying, and tracking) make it easier to share knowledge and information. Collaborative support teamwork and group learning.

1.4 Scope and Limitation of the Study

Client-Side as Reader View

- Posts were organized in *reverse chronological order* so the latest post should on top
- Use *pagination* to understand the hierarchy and faster load of the page
- Create a list of *Authors* and another list for *Categories* for improving readability
- Create *Read More* buttons with each post for getting access in details and comments
- Enable *Search Box* for quick find of any post

Server-Side as Admin View

- Login module: Login module will help in the authentication of user accounts. Users who are registered by admin can access through *Username* and *Password*
- Admin Dashboard: Admin Homepage.
- Add New Post
- Manage Categories: Can create, edit, delete categories for the post type.
- Manage Admins: This module will help the user get registered from anywhere if the internet is present. Also after successful registration the user can update information and change their password as and when required.
- Manage Comments
- Live Blog View

1.5 Justification

- ❖ Help create connections between students with diverse opinions and interests. This encourages critical thinking and teaches the value of respect towards other students.

- Discussions promote higher levels of thinking because people can think before answering back.
- Accuracy of a project or topic outcomes increases due to the continuous flow of feedback from the teacher and fellow students.
- Also, teachers may benefit from the possibility of monitoring projects in real-time, thus indicating improvements before it is too late for the students to incorporate them.
- For non-computer science students, it provides the chance of learning about web page creation, hyperlinking, and other www topics.
- The use of new technologies prepares students better for the current labor market.

1.6 Project Risk and Mitigation

1. The use of technology-based tools may be a barrier. It can be of a structural nature, for instance, a lack of computers, or difficult access to the Internet (as happens in Bangladesh where the Internet connection is quite expensive and slow).
2. The question of authentication also encompasses the idea of access to various edublogs. An open system would allow anyone to access all edublogs. While some faculty appreciate an open system and encourage students to read and comment on other edublogs, there are many that would prefer that access to their class edublogs be given to registered students and invited guests only.
3. Even though most edublogs are hosted in public, free ASPs, learning edublogs should be hosted in private servers, so that they show neither advertisements nor banners (which are the most common method of ASPs financing).
4. If the edublogs is public, it may suffer troll infestations, people that intentionally try to cause disruption by posting messages that are inflammatory, insulting, incorrect, inaccurate, or off-topic, with the intent of provoking a reaction from others.

1.7 Future Scope

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.

Chapter Two

Literature Review

The following review of literature confirms that the ad vocations of Internet-Based Learning System (edublog) will influence the education environment of university and autonomous learning and edublog will lay a new foundation for the application of network in universities. WU You-xin (2003) states the interest of universities in network context is eventually realized by edublog due to the identification between the relationship of edublog, individual and organization.

2.1 The Present Study

The term 'EduBlogs' is a new type of blog that has begun to emerge in educational circles. Surprisingly, there is not a lot of refereed published material on the subject of blogs in general, let alone work that focuses specifically on blogs in education. Combined searches on ProQuest, EBSCO and Gale yielded only 30 results in peer reviewed scholarly journals, and the bulk of these are focusing on the influence of blogging on journalism and reporting. One article that reflects a little more deeply on the potential of the blog as a tool for the promotion of deeper learning on a variety of fronts is that produced by Oravec (2002).

Hiler (2003) defined blogs as 'The latest disruptive technology', the 'killer app' that has the capacity to engage people in collaborative activity, knowledge sharing, reflection and debate, where complex and expensive technology has failed. Furthermore, the nature of blogging engines allows for the creation of a legitimate warehousing of captured knowledge, and archiving for later retrieval (Bausch, Haughey & Hourihan, 2002).

2.2 Review of past

The research of Ferdig & Trammel (2004), drawing on educational theories of Vygotski (1978), is also significant in assessing the educational value of blogs. They argue that the discursive nature of knowledge construction is best addressed by the immediacy and commentary based system of blogging. They observe that there will be a natural tendency for reflection and analysis on the part of the student, given feedback systems are integral to the blogging interface, but also note that the contextualization of learning through hypertext links

to other materials encourages revisiting and revising of learned concepts, enriching the learning experience. Compared to asynchronous discussion forums such as newsgroups and bulletin boards, **Ferdig & Trammel (2004)** contend that blogs are more successful in promoting interactivity that is conversational; a mode of interaction more conducive to improved student and teacher relationships, active learning, higher order thinking, and greater flexibility in teaching and learning more generally.

Blogs are **perhaps the most obvious realization of Allen's vision** to provide a forum for academic discourse that reaches beyond the scope of a university subject and which augments the knowledge creation occurring throughout a student's enrolment in a higher education program. Students have long learned as much from each other as they have from an instructor or a textbook – it's just a question of finding an appropriate vehicle for facilitating this learning. The 'cut and thrust' of the classroom has performed such a function for many years and will likely continue to do so for some time to come, but the blog provides another such forum, one that successive generations of students will feel increasingly comfortable with, as it becomes more commonplace for people to engage with one another online rather than on campus. (Indeed, some might argue that we have already gone past this point.)

2.3 Preparing for Tomorrow, Today

In short, blogs have the potential, at least, to be a truly transformational technology in that they provide students with a high level of autonomy while simultaneously providing opportunity for greater interaction with peers. A blogging tool would be a valuable addition to any higher education program.

In summary, therefore, although one might be led to the conclusion that academics have been a little slow getting out of the starting blocks, the fact of the matter is that blogging, for all intents and purposes, is a grassroots phenomenon. For this reason, academic bloggers, if they are true to their ideals, may be more concerned about spreading their message in the blogosphere than in the 'Journal of Obscure Facts'! Meanwhile, for the non-blogging academic community, it may be a case of insufficient time having passed yet for blogging to penetrate the outer shell of their paradigm. For them, blogging seems to be working in practice, but does it work in theory?

Chapter Three

METHODOLOGY

The "Methodology for the Web Site" incorporates the steps of Analysis, Planning and Designing, Programming & Developing, Testing, and Site Implementation.

3.1 Analysis

The Internet-Based Learning System will influence the education environment of universities and autonomous learning and it will lay a new foundation for the application of networks in universities. In the website the users will see Posts about academic discourse that reaches beyond the scope of a university subject and which augments the knowledge creation occurring throughout a student's enrolment in a higher education program.

Hardware Requirements

- Processor: Pentium 4 and above, or any other equivalent processor.
- RAM: 512 MB and Above.
- Hard Disk: 20 GB and Above.

Software Requirements

- Operating systems: Microsoft windows or Linux
- PHP 5.0
- Apache HTTP server.
- Sublime Text 3

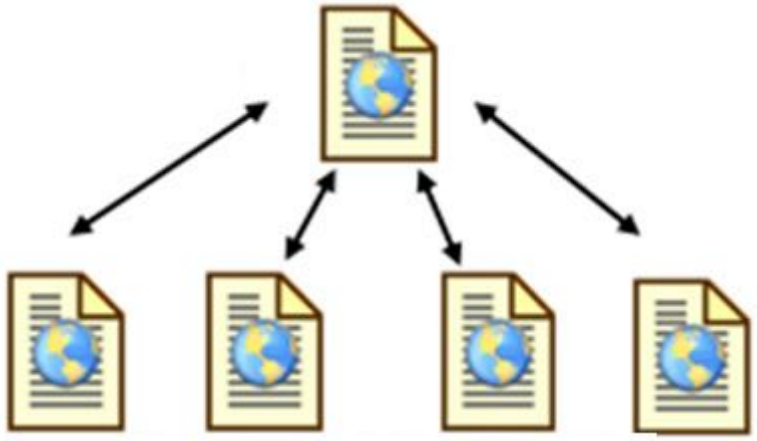
Technologies Requirements

- Front End: HTML5, CSS, Javascript
- Back End: PHP5
- Database: MySQL

3.2 Planning and Designing:

Websites are designed using any of several different types of layouts. Each layout links, or connects, the Web pages in a different structure to define how users navigate through the site and view the Web pages.

In here Hierarchical Layout chooses to navigate through the site and view the Web pages. It is the typical tree structure, in which the root is the welcome page, it can also be replaced by the content, in which the different sections containing the site are exposed.



Now that a plan is in place, can begin executing a carefully crafted user experience that meets usability. This process combines award-winning visual design as well as all the technical requirements to ensure the website will look beautiful across any device and be accessible to as many users as possible.

It involves extensive and detailed work, since it covers not only the interaction of multiple elements, such as multimedia technology (audio, sound, images, animations, etc.); but also it covers integration with a logical structure based on the site's purpose.

Each of users can access information with different computers, browsers, and languages, these factors may prevent the site to be fully appreciated.

- Accessibility to the computer: Referred to the ability of hardware which it must have to use the Web application, the ideal in this area is that the application adapts to any computer
- Accessibility of used browser: Occasionally same contents are displayed differently in different Web browsers, is recommended using a design that can be viewed in most browsers and attached to standards
- Web page design accessibility: Users may have disabled some features of Web browsers, which could affect the proper display of the contents of the Website

3.3 Programming & Developing

On receiving the design documents the coding phase starts. Small modules are developed first and then they are integrated and implemented to meet their specifications. Now building the engine and functionality that will bring the project to life. It is during this phase that the detailed planning comes into play. Attention to detail is everything;

- The programming languages in which the Website is developed: HTML, CSS, PHP, MySQL, JavaScript:
- The database: XAMPP;
- Which content will be static and what will be dynamic

Once these criteria is defined it's passed to a stage known as three phases architecture, which states:

- Databases: designs and creates the database
- Intermediate Programming: Programs or code that will run on the Web server. Here the communication between the database and the interface will be set by using PHP & MySQL
- Interface: Programs and codes that will deploy the content to users through the Web browser. It refers to applications that the user will see and operate through it. Built the interface with the HTML, CSS, PHP & JavaScript

3.4 Testing

After the coding phase, testing begins. Different Testing Methodologies are used in order to detect the bugs. The bugs are fixed and the final website is tested to make sure that it meets the requirements. priority is to deliver a bug-proof, cross-browser compatible, thoroughly tested final product. now perform diligent quality assurance tests on all parts of the project so that when the site goes live, it can rest easy.

- Checking in browsers: The first and most important step is to check that the pages can be viewed correctly in different browsers
- Detect broken links: It is necessary to detect documents that exist in the site but that are not connected by links; they must be repaired or removed if not needed since they’re taking up space on the server and tend to create confusion
- Usability testing is a method by which users of a Web site are asked to perform certain tasks in an effort to measure the ease of use of the product. Usability is the measure of how well a product allows users to accomplish their goals.

3.5 Site Implementation

After the Web site testing is complete and any required changes have been made, the Web site can be implemented. Implementation of a Web site means publishing the Web site or uploading it into a Web server.

Once everything's working beautifully, it's time to plan and execute your site launch!

Chapter Four

Technological Details

4.1 Software Tools Used

We have used some software tools to develop our project. For a complete dynamic and fully functional project these software tools are very important for development.

- **Web Browser**: A web browser, or simply "browser," is an application used to access and view websites. Common web browsers include Microsoft Internet Explorer, Google Chrome, Mozilla Firefox, and Apple Safari. The primary function of a web browser is to render HTML, the code used to design or "mark up" web pages. Each time a browser loads a web page, it processes the HTML, which may include text, links, and references to images and other items, such as cascading style sheets and JavaScript functions. The browser processes these items, then renders them in the browser window.
- **Chrome DevTools** is a set of web developer tools built directly into the [Google Chrome]browser. DevTools can help you edit pages on-the-fly and diagnose problems quickly, which ultimately helps you build better websites, faster.
- **Sublime Text** is a shareware cross-platform source code editor with a Python application programming interface (API). It natively supports many programming languages and markup languages, and functions can be added by users with plugins, typically community-built and maintained under free-software licenses.
- **XAMPP** is an open-source web server package that works on various platforms. It is actually an acronym with X meaning “cross” platform, A for Apache HTTP server, M for MySQL, P for PHP, and P for Perl. XAMPP was designed to help web page developers, programmers, and designers check and review their work using their computers even without connection to the web or internet. So, basically XAMPP may be used to stand as pages for the internet even without connection to it. It can also be used to create and configure with databases written in MySQL and/or SQLite. And since XAMPP is designed as a cross-platform server package, it is available for a variety of operating systems and platforms like Microsoft Windows, Mac OS X, Linux, and Solaris.

- **Adobe Photoshop** is software that is extensively used for raster image editing, graphic design and digital art. It makes use of layering to allow for depth and flexibility in the design and editing process, as well as provide powerful editing tools that, when combined, are capable of just about anything. It was created by brothers Thomas and John Knoll in 1988. In 1989, John sold the program to Adobe Systems, which marketed it as “Photoshop.” Since then, the program has become the de facto industry standard for raster graphics editing. It is published for both MacOS and Windows, but not Linux.

4.2 Language Used

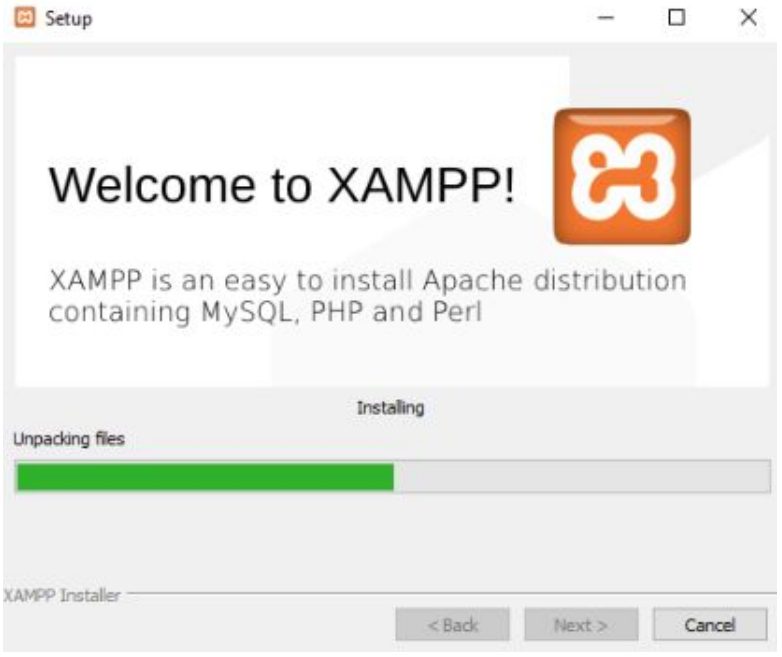
- **HTML5** is a markup language for the structure and presentation of World Wide Web contents. HTML5 supports the traditional HTML and XHTML-style syntax and other new features in its markup, New APIs, XHTML and error handling.
- **CSS**: Stands for "Cascading Style Sheet." Cascading style sheets are used to format the layout of Web pages. They can be used to define text styles, table sizes, and other aspects of Web pages that previously could only be defined in a page's HTML.
- **Java Script**: JavaScript is a text-based programming language used both on the client-side and server-side that allows you to make web pages interactive. ... Incorporating JavaScript improves the user experience of the web page by converting it from a static page into an interactive one. To recap, JavaScript adds behavior to web pages.
- **PHP**: Stands for "Hypertext Preprocessor." PHP is an HTML-embedded Web scripting language. This means PHP code can be inserted into the HTML of a Web page. PHP scripts are executed on the server. PHP is an alternative to Microsoft's Active Server Page (ASP) technology.
- **MySQL**: MySQL is a relational database management system based on SQL – Structured Query Language. The application is used for a wide range of purposes, including data warehousing, e-commerce, and logging applications. The most common use for MySQL however, is for the purpose of a web database.

Chapter Five

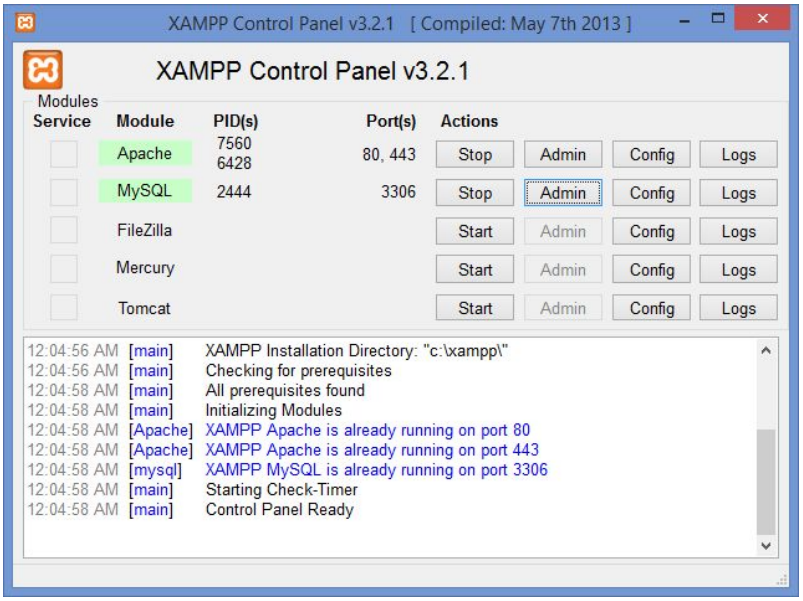
DATABASE

This chapter, we will discuss and show about developing databases and data flow of "Internet-Based Learning System".

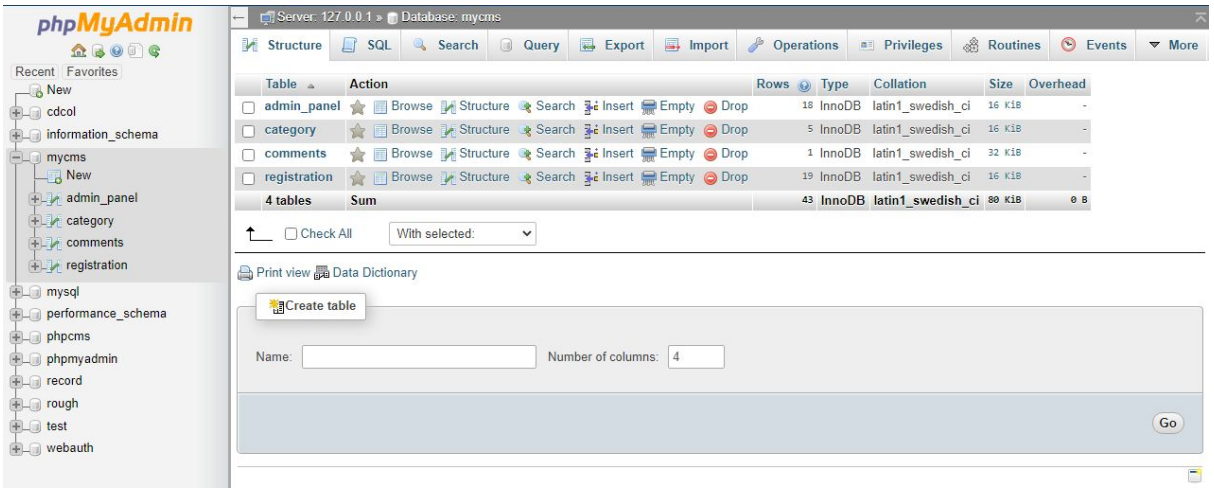
5.1 Installing XAMPP



5.2 Running XAMPP



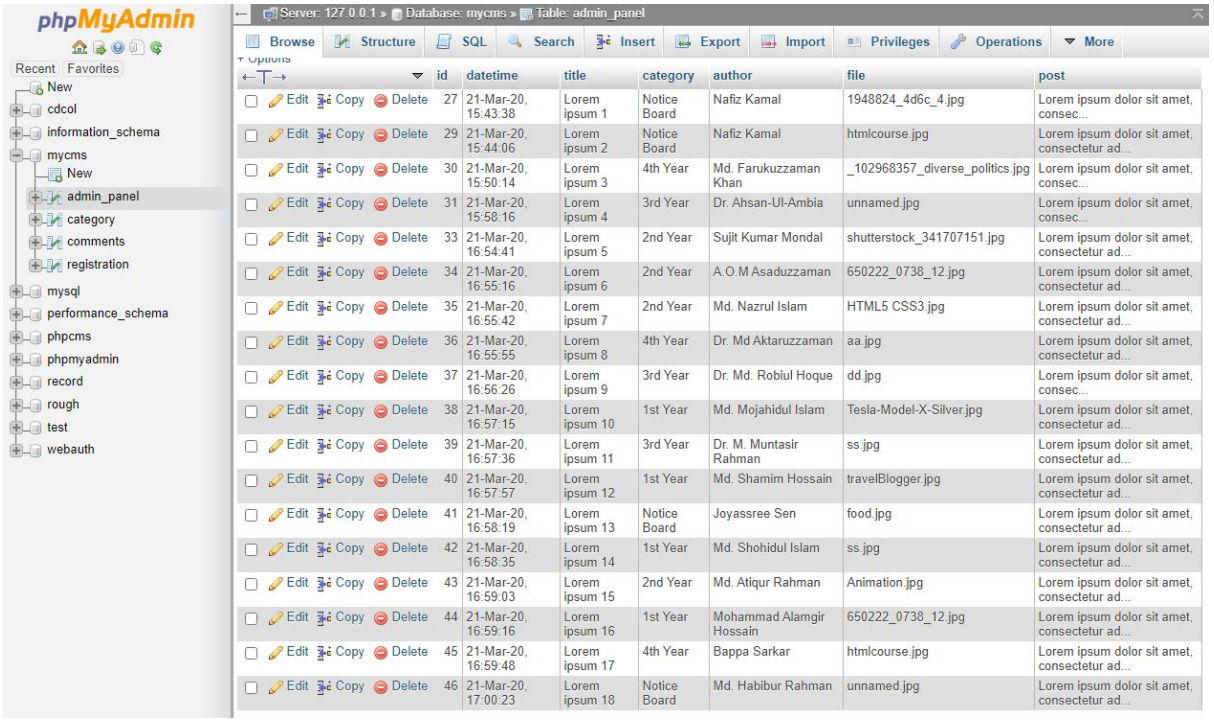
We start XAMPP to create a local host of our project. After running XAMPP we create our database and table.



We create four table,

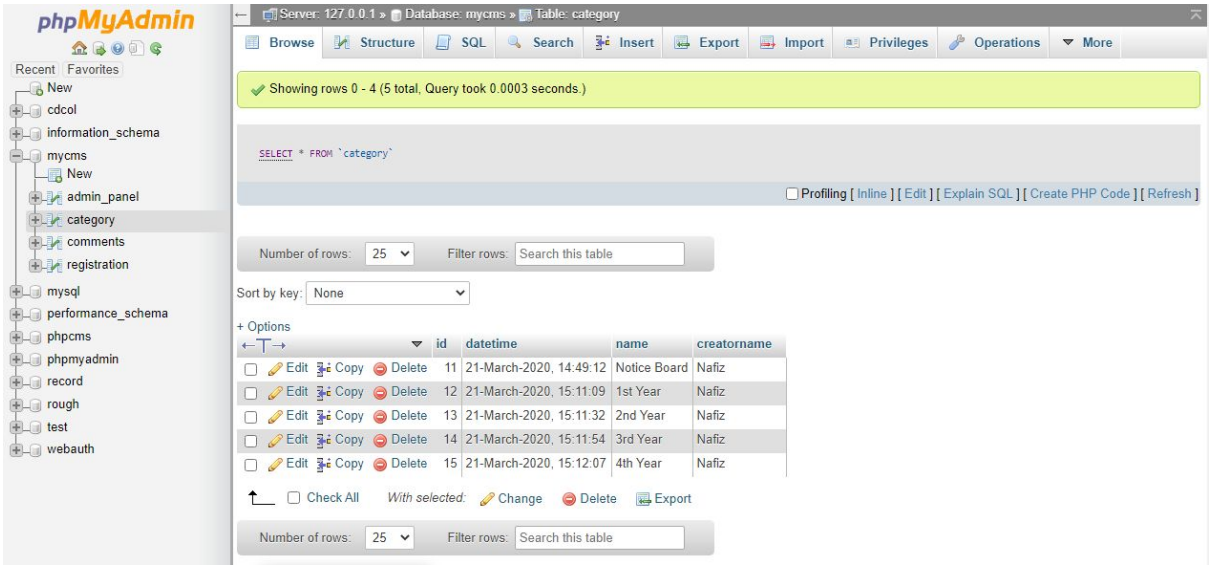
5.3 Create ‘admin_panel’

Which contains the post details published by admin;



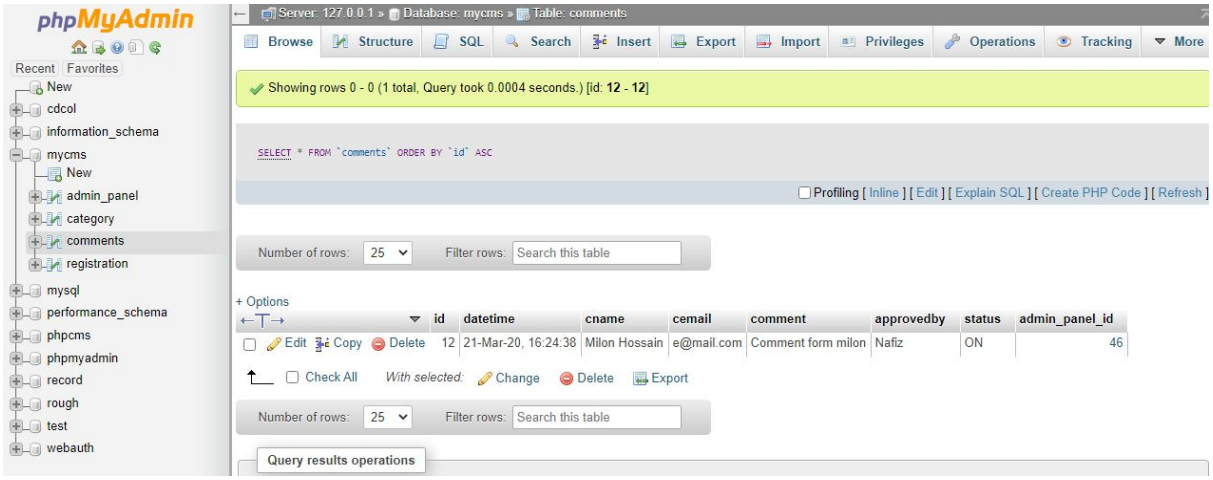
5.4 Create ‘category’

Which contains the post-category details.



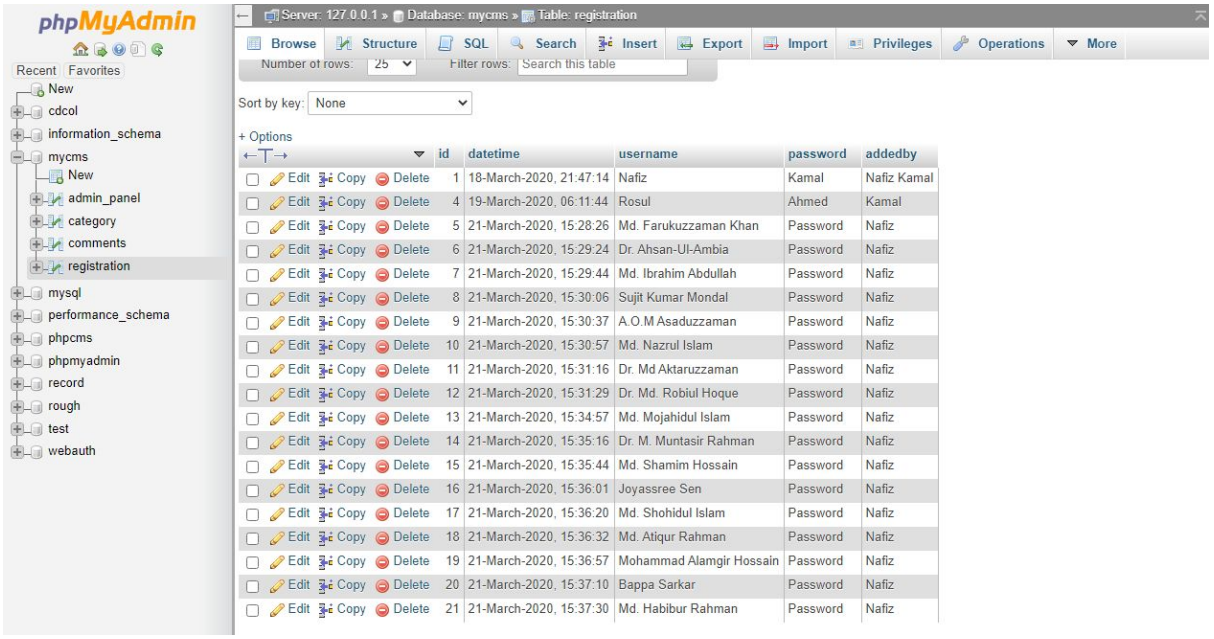
5.5 Create ‘comments’

Which contains the post associated with the comment.



5.6 Create ‘registration’

Which contains admins *username , password* and details.



	id	datetime	username	password	addedby
Edit Copy Delete	1	18-March-2020, 21:47:14	Nafiz	Kamal	Nafiz Kamal
Edit Copy Delete	4	19-March-2020, 06:11:44	Rosul	Ahmed	Kamal
Edit Copy Delete	5	21-March-2020, 15:28:26	Md. Farukuzzaman Khan	Password	Nafiz
Edit Copy Delete	6	21-March-2020, 15:29:24	Dr. Ahsan-Ul-Ambia	Password	Nafiz
Edit Copy Delete	7	21-March-2020, 15:29:44	Md. Ibrahim Abdullah	Password	Nafiz
Edit Copy Delete	8	21-March-2020, 15:30:06	Sujit Kumar Mondal	Password	Nafiz
Edit Copy Delete	9	21-March-2020, 15:30:37	A.O.M Asaduzzaman	Password	Nafiz
Edit Copy Delete	10	21-March-2020, 15:30:57	Md. Nazrul Islam	Password	Nafiz
Edit Copy Delete	11	21-March-2020, 15:31:16	Dr. Md Aktaruzzaman	Password	Nafiz
Edit Copy Delete	12	21-March-2020, 15:31:29	Dr. Md. Robiul Hoque	Password	Nafiz
Edit Copy Delete	13	21-March-2020, 15:34:57	Md. Mojahidul Islam	Password	Nafiz
Edit Copy Delete	14	21-March-2020, 15:35:16	Dr. M. Muntasir Rahman	Password	Nafiz
Edit Copy Delete	15	21-March-2020, 15:35:44	Md. Shamim Hossain	Password	Nafiz
Edit Copy Delete	16	21-March-2020, 15:36:01	Joyassree Sen	Password	Nafiz
Edit Copy Delete	17	21-March-2020, 15:36:20	Md. Shohidul Islam	Password	Nafiz
Edit Copy Delete	18	21-March-2020, 15:36:32	Md. Atiqur Rahman	Password	Nafiz
Edit Copy Delete	19	21-March-2020, 15:36:57	Mohammad Alamgir Hossain	Password	Nafiz
Edit Copy Delete	20	21-March-2020, 15:37:10	Bappa Sarkar	Password	Nafiz
Edit Copy Delete	21	21-March-2020, 15:37:30	Md. Habibur Rahman	Password	Nafiz

Chapter Six

Project Details

In this chapter we will discuss our project “Internet-Based Learning System”.With this website we can have the capacity to engage people in collaborative activity, knowledge sharing, reflection and debate.

Here we describe about “Internet-Based Learning System” with screenshots of our project pages.

6.1 Client Side View

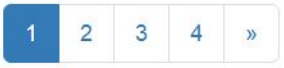
homepage is an essential tool and often serves as the first impression to users. Homepage content features are:

1. **Logo:** It’s the core of branding and identity.

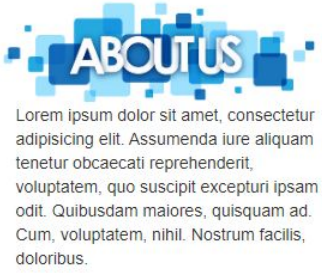
2. **Navigation**: Straightforward and intuitive navigation is added to the website in the header and the website is content-heavy so a search box is included here. And by using navigation authorized users can go to the Server Side of the website.

3. **Headline**: A headline with sub-headline provides a clear description of the website that it is a website named 'Internet Based Learning System' and created by 'Nafiz Kamal & Rosul Ahmed'.
4. **Post of Posts**: Each post contains post heading, category, author, published time and post summary with a 'Read More' button;

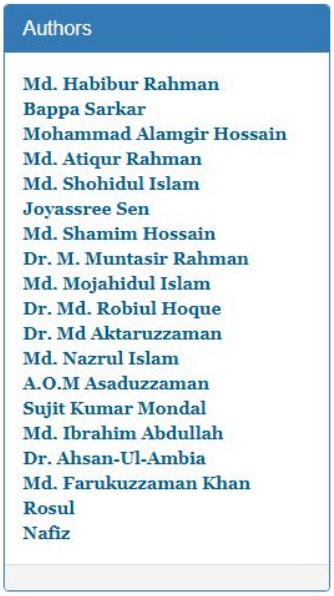
5. **Pagination**: Splitting the contents of the website into discrete pages By using pagination where each page contains five posts in chronological order.



6. Sidebar: Inside the sidebar there are four sub-section included.
    a. 'About Us' Section: where describe the visitors what we have to offer and details.



    b. 'Authors' Section: List of authorized Authors are included here with link. By clicking any individual visitors can read all posts of the individual author.

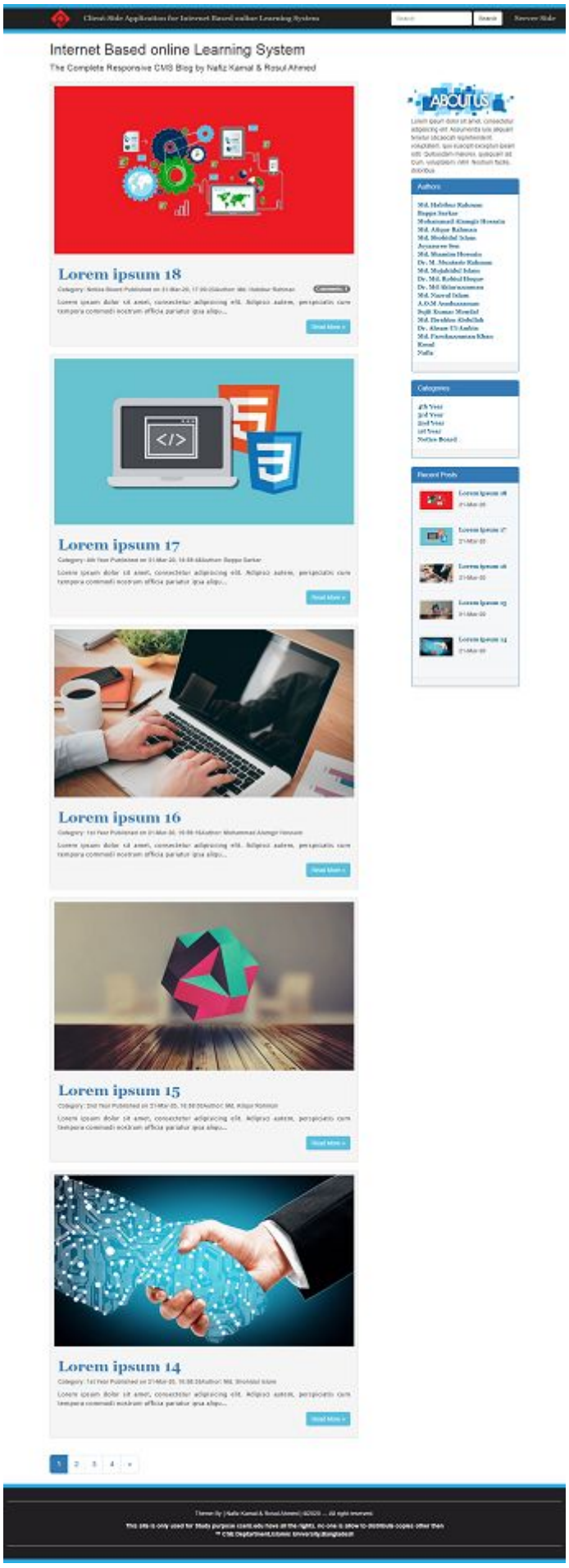


c. 'Categories' Section: Here the type of post in a list with links are included. And by clicking any individual visitors can read all posts of the individual.

d. 'Recent Posts' Section: Here a list of five latest posts are included.

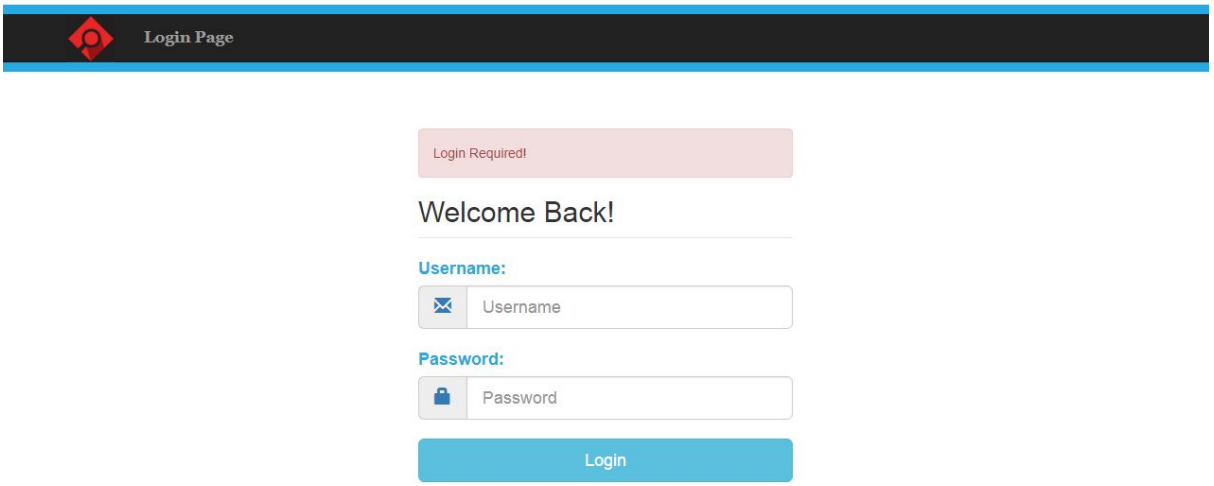
7. **Footer**: An informational footer is included. Once visitors reach the end of the homepage, this area should provide features: contact information, links. Contact information encourages the visitor to get in contact. Links can be a helpful way to provide a mini-sitemap or encourage the user to check out interior pages.

Screenshot of the full Homepage given below:


Internet Based online Learning System
The Complete Responsive CMS Blog by Nafiz Kamal & Rosul Ahmed
Lorem ipsum 18
Lorem ipsum 17
Lorem ipsum 16
Lorem ipsum 15
Lorem ipsum 14
ABOUT US
Authors
Categories
Recent Posts

6.2 Server Side View:

Login Page: By clicking Navigation in 'Server Side', the page will redirect to Login Page. Here admin must provide valid username and password to login.



Admin's Dashboard: after login page will redirect to Admin's Dashboard;
In here admin has the view of all post titles with their corresponding Author, Category, Banner, Published Time, Comments.
Admin can also take action as Edit or Delete a post or check the Live preview look in Client-side view.

Server Side Application for Internet Based online Learning System — Admin: Nafiz

- DashBoard
- Add New Post
- Categories
- Manage Admins
- Comments
- Live Blog
- Logout

Welcome Nafiz

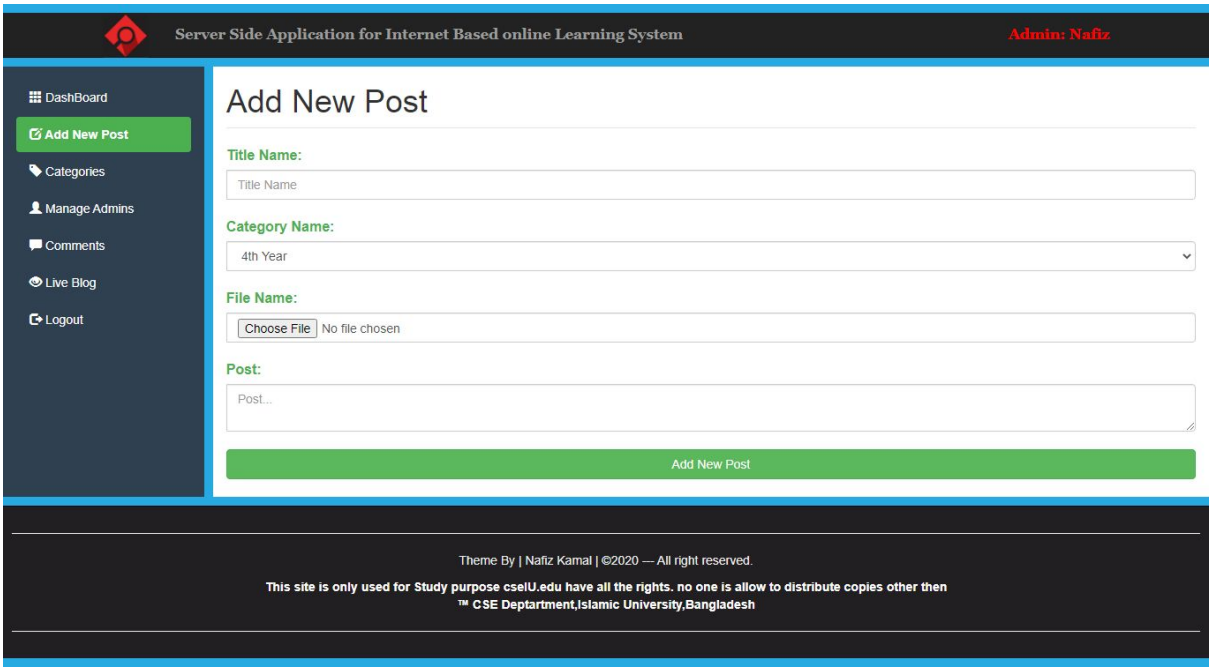
Admin DashBoard

No.	Post Title	Date & Time	Author	Category	Banner	Comments	Action	Details
1	Lorem ipsum 18	21-Mar-20	Md. Habibur Rahman	Notice Board		1	Edit Delete	Live Preview
2	Lorem ipsum 17	21-Mar-20	Bappa Sarkar	4th Year			Edit Delete	Live Preview
3	Lorem ipsum 16	21-Mar-20	Mohammad Alamgir Hossain	1st Year			Edit Delete	Live Preview
4	Lorem ipsum 15	21-Mar-20	Md. Atiqur Rahman	2nd Year			Edit Delete	Live Preview
5	Lorem ipsum 14	21-Mar-20	Md. Shohidul Islam	1st Year			Edit Delete	Live Preview
6	Lorem ipsum 13	21-Mar-20	Joyassree Sen	Notice Board			Edit Delete	Live Preview
7	Lorem ipsum 12	21-Mar-20	Md. Shamim Hossain	1st Year			Edit Delete	Live Preview
8	Lorem ipsum 11	21-Mar-20	Dr. M. Muntasir Rahman	3rd Year			Edit Delete	Live Preview
9	Lorem ipsum 10	21-Mar-20	Md. Mojahidul Islam	1st Year			Edit Delete	Live Preview
10	Lorem ipsum 9	21-Mar-20	Dr. Md. Robiul Hoque	3rd Year			Edit Delete	Live Preview
11	Lorem ipsum 8	21-Mar-20	Dr. Md Aktaruzzaman	4th Year			Edit Delete	Live Preview
12	Lorem ipsum 7	21-Mar-20	Md. Nazrul Islam	2nd Year			Edit Delete	Live Preview
13	Lorem ipsum 6	21-Mar-20	A.O.M Asaduzzaman	2nd Year			Edit Delete	Live Preview
14	Lorem ipsum 5	21-Mar-20	Sujit Kumar Mondal	2nd Year			Edit Delete	Live Preview
15	Lorem ipsum 4	21-Mar-20	Dr. Ahsan-Ul-Ambia	3rd Year			Edit Delete	Live Preview
16	Lorem ipsum 3	21-Mar-20	Md. Farukuzzaman Khan	4th Year			Edit Delete	Live Preview
17	Lorem ipsum 2	21-Mar-20	Nafiz Kamal	Notice Board			Edit Delete	Live Preview
18	Lorem ipsum 1	21-Mar-20	Nafiz Kamal	Notice Board			Edit Delete	Live Preview

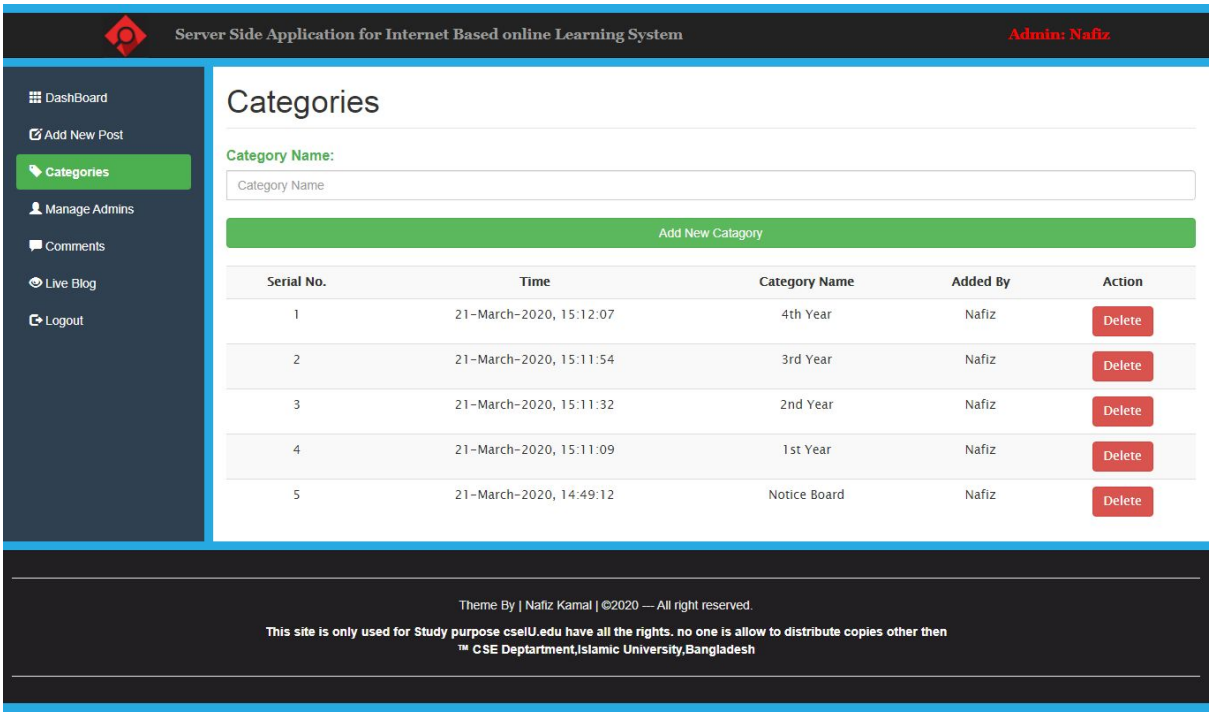
Theme By | Nafiz Kamal |©2020 — All right reserved.

This site is only used for Study purpose cseIU.edu have all the rights. no one is allow to distribute copies other then ™ cseIU.edu

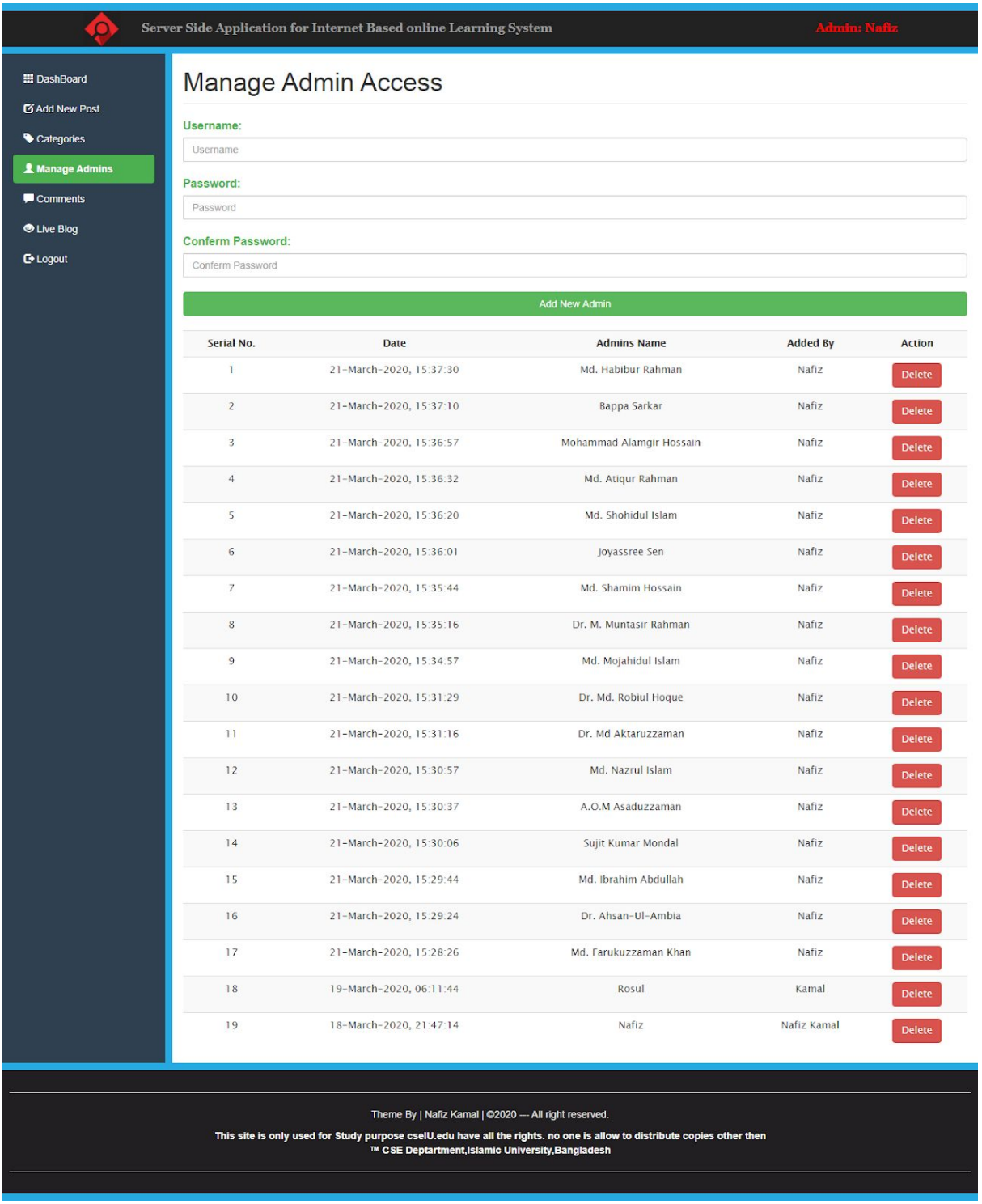
Add New Post: New post can be published by filling the form.



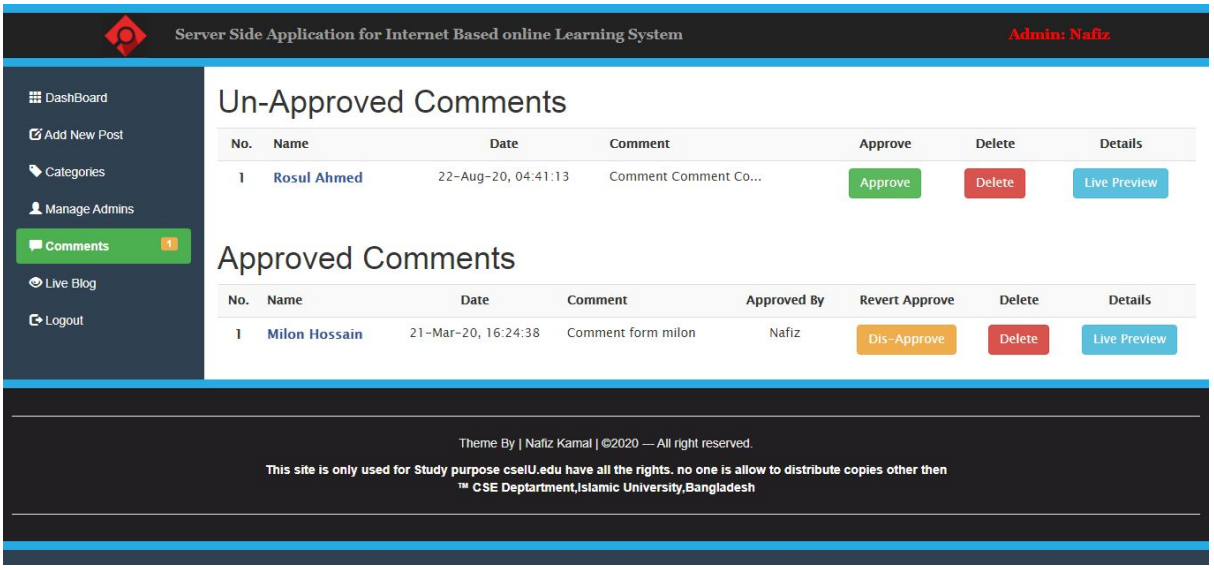
Categories: Categories can be managed by this page.



Manage Admins: For Addition or Removal of Admin's can work out by this page.



Comments: Comments are managed by this page. There are two categories. Approved Comment which can be seen by visitors after approval of admin & Un-Approved Comment which are waiting for approval of admin to get published.



Live Blog: Go to Client side view.

Logout: for admin to sign-out.

Chapter Seven

Performance Analysis

7.1 Testing

After the coding phase, testing begins. Different Testing Methodologies are used in order to detect the bugs. The bugs are fixed and the final website is tested to make sure that it meets the requirements. priority is to deliver a bug-proof, cross-browser compatible, thoroughly tested final product. now perform diligent quality assurance tests on all parts of the project so that when the site goes live, it can rest easy.

- Checking in browsers: The first and most important step is to check that the pages can be viewed correctly in different browsers
- Detect broken links: It is necessary to detect documents that exist in the site but that are not connected by links; they must be repaired or removed if not needed since they're taking up space on the server and tend to create confusion
- Usability testing is a method by which users of a Web site are asked to perform certain tasks in an effort to measure the ease of use of the product. Usability is the measure of how well a product allows users to accomplish their goals.

Web testing is checking websites for potential bugs before it's made live and is accessible to the general public. Web Testing checks for functionality, usability, security, compatibility, performance of the web application or website.

Web Testing Checklists

- Functionality Testing
- Usability testing
- Interface testing
- Compatibility testing
- Performance testing
- Security testing

5.2 Security Testing

Security testing is the process which checks whether the confidential data stays confidential or not (i.e. it is not exposed to individuals/ entities for which it is not meant for) and the users can perform only those tasks that they are authorized to perform.

Some Key Terms Used In Security Testing:

Vulnerability: This is the weakness in the web application. The cause of such "weakness" can be due to the bugs in the application, an injection (SQL/ script code) or the presence of viruses.

URL Manipulation: Some web applications communicate additional information between the client (browser) and the server in the URL. Changing some information in the URL may sometimes lead to unintended behavior by the server and this termed as URL Manipulation.

SQL injection: This is the process of inserting SQL statements through the web application user interface into some query that is then executed by the server.

XSS (Cross-Site Scripting): When a user inserts HTML/ client-side script in the user interface of a web application, this insertion is visible to other users and it is termed as XSS.

Chapter Eight

Limitations & Conclusions

8.1 Limitations:

1. Surprisingly, there is not a lot of refereed published material on the subject of blogs in general, let alone work that focuses specifically on blogs in education. Combined searches on ProQuest, EBSCO and Gale yielded only 30 results in peer reviewed scholarly journals, and the bulk of these are focusing on the influence of blogging on journalism and reporting.
2. If the edublogs is public, it may suffer troll infestations, people that intentionally try to cause disruption by posting messages that are inflammatory, insulting, incorrect, inaccurate, or off-topic, with the intent of provoking a reaction from others.
3. The use of technology-based tools may be a barrier. It can be of a structural nature, for instance, a lack of computers, or difficult access to the Internet (as happens in Bangladesh where the Internet connection is quite expensive and slow).
4. The question of authentication also encompasses the idea of access to various edublogs. An open system would allow anyone to access all edublogs. While some faculty appreciate an open system and encourage students to read and comment on other edublogs, there are many that would prefer that access to their class edublogs be given to registered students and invited guests only.

8.2 Conclusion:

A blogging tool would be a valuable addition to any higher education program. It provides a forum for academic discourse that reaches beyond the scope of a university subject and which augments the knowledge creation occurring throughout a student's enrolment in a higher education program.

Students have long learned as much from each other as they have from an instructor or a textbook – it's just a question of finding an appropriate vehicle for facilitating this learning. The 'cut and thrust' of the classroom has performed such a function for many years and will likely continue to do so for some time to come, but the blog provides another such forum, one that successive generations of students will feel increasingly comfortable with, as it becomes more commonplace for people to engage with one another online rather than on campus. (Indeed, some might argue that we have already gone past this point.)

References

1. Ray, J (2006). "Blogosphere: The Educational Use of Blogs". *Kappa Delta Pi Record*. **42** (4): 175–177. doi:10.1080/00228958.2006.10518024.
2. *Richardson, Will (2010). Blogs, Wikis, Podcasts, and Other Powerful Web Tools For Classroom. USA: Corwin. p. 27.* ISBN 978-1-4129-7747-0.
3. *Lee, Judy; Allen, K (2006).* "Edublogs as an Online Assessment Tool" (PDF). *Current Developments in Technology Assisted Education: 392.*
4. *Luján-Mora, Sergio (November 2006). "A Survey of Use of Weblogs in Education". Proceedings of the 4th International Conference on Multimedia and Information and Communication Technologies in Education (M-ICTE 2006): 255–259.*
5. *Kerawella, L.; Minocha, S.; Kirkup, G.; Conole, G. (2008). "An Empirically Grounded Framework to Guide Blogging in Higher Education". Journal of Computer Assisted Learning.* **25**: 31–42. *doi*:10.1111/j.1365-2729.2008.00286.x.
6. *Luján-Mora, Sergio.* "Ways to use blogs in education". *Retrieved 18 May 2013.*
7. *Leslie, P; Murphy, E (2008).* "Post Secondary Students' Purposes for Blogging". *The International Review of Research in Open and Distributed Learning.* **9** (3): 1–17. *doi*:10.19173/irrodl.v9i3.560.
8. *Dickey, M.D. (2004). "Impact of Weblogs (Blogs) on Student Perceptions of Isolation and Alienation in a Web-Based Distance Learning Environment". Open Learning.* **9**(3): 279–291. *doi*:10.1080/0268051042000280138.
9. *Chen, W; Bonk, C (2008). "The Use of Weblogs in Learning and Assessment in Chinese Higher Education: Possibilities and Potential Problems". International Journal on e Learning.* **7** (1): 41–65.