

NITC BLOGGING SYSTEM

CS3002D PROJECT

FINAL REPORT

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ABSTRACT

Blog has the capacity to simultaneously strike a professional and a warm relationship between the creator and the reader. We have decided to implement a blogging mechanism for NITC. Never has the need for professional comradery been felt more than in this pandemic.

The blogging ecosystem in discussion is intended to cater to the students and faculty of this institution, and will contain blogs related to the disciplines taught in this institution. The blogging mechanism will have a provision for an admin for each discipline. These admins, generally faculty members, will have the power to control, and if need be, censor what is presented to the viewer. These include articles, comments, and discussions on the blogs by the various members of this college. The admin will also be provided with statistics of the various blogs, to know which blog has engaged how many people.

One of the primary aims of this project is to ensure that an inter-disciplinary approach is taken to education. Students of a certain discipline may have interest in other areas of engineering, and they can collaborate with their peers in those fields to pursue joint ventures. Another aim of this endeavour is to bring together various students, and ensure that a vibrant discussion takes place, and a competitive spirit remains between them.

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1. INTRODUCTION

This Blog system is designed to solve the large communication barrier during pandemic time and further. We lack a platform where all students and faculties may come and share the knowledge and content related to their field, and also get to know about all fields they are interested in. We have decided to implement a blogging mechanism for NITC. This Educational Blog system is a web application intended to convey students of NITC regarding all the information teachers want to share related to their subject out of their books course. We usually find that teachers want to share some research papers, news, links, some articles and many more stuffs which are not to be shared in our eduserver portal. Hence this blog website will give them functionality to share this stuffs also students will be allowed to comment and provide their views on the post and clear all related doubts. Only teachers will be having access to administration of site so that they can control the comments and activities on the blog post.

Additionally, it is seen that college event organizing groups have to use different social media to promote their events. So we will be giving a special blog posting facilities for such groups to promote their college events they will be organizing.

The design of database is based on the information posted by the blogger, and served to reader in reverse chronological order. All blogs can also be viewed separately on basis of blog category they like to see. Special permission are granted to bloggers who have ability to view states related to post, allow and disallow comments to be shown etc. The data is stored in SQL. Access to data will be through a web interface running on web server and using PHP.

The driving philosophy behind the database design was to have an efficient, normalized database that would be easy to maintain and expand, as well as allow easy data entry and access. Easy deletion and update of data is also taken under consideration.

2. PROJECT OBJECTIVES

This web application intends to target the problem of finding a place to share important information and events to whole student community. Teachers can use this to post relevant posts related to their subjects but out of their subject notes and books, so that students can explore their subject and can generate better understanding. Also event managing groups can use this to promote the upcoming events they will be conducting. Also as a student this will help them to maintain and know all relevant posts related to college at a single place.

Objectives :-

- Provide a platform for teachers to posts important links, news etc related to their subjects to improve interest of students towards the subject.
- Event organizing clubs can promote their events through this blogging platform.
- Student can use it a place to get all college related information at a single place, also facility to share doubts and views is provided
- Only teachers and event organizers will have access to post and handle admin panel of blog website. So they are granted permission to manage post and comment accordingly.
- This site can also help in keeping track of upcoming events to be held in respective college

3. BACKGROUND AND MOTIVATION

The pandemic has turned the established order and routine on its head. All existing conventions have been made nearly redundant. So goes for the education system. Staying at home and learning isn't the same as the amazing experience of learning in an educational atmosphere and institute. Therefore, our group felt that we had to address this growing divide between the teachers and students. Something which we also observed during these unconventional times was that students lacked the will and motivation to study. This could perhaps be attributed to the current dreary times. Also students have a lot of time on their hand as compared to when they were in colleges. Hence, it is a good time to pursue personal projects and interests as well. Therefore, we felt we had to make learning a more interesting experience, and to establish a more close relationship between the teacher and students.

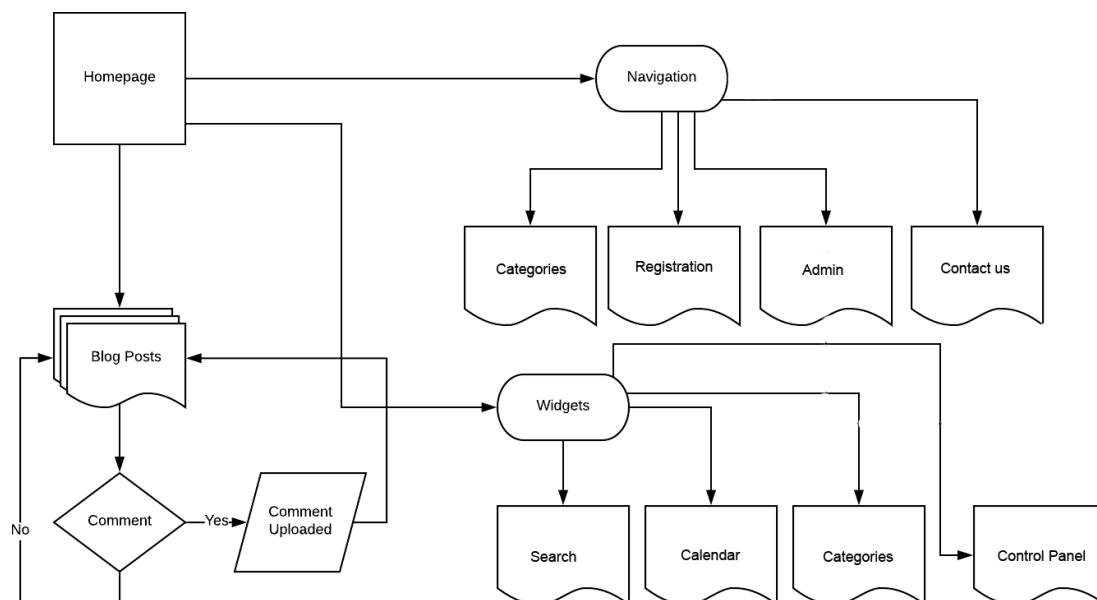
Our group came up with the idea of a blogging system for NITC, however since every data is dynamic we can use this site for all other colleges too. In this blogging system, there would be articles and blogs posted by teachers or 'admins'. These blogs would pertain to certain disciplines and areas of knowledge, for instance, 'html' , 'css', 'filters', 'java' , etc. These study materials could be related to what is taught in class. However, all articles posted on this blog will be done with the intention of presenting a unique piece of knowledge, and to provide the students with a food for thought. This blog also aims to induce students to pursue group projects with an inter- disciplinary approach. For instance, this blog required us to be well adept in web development. Luckily for us, some of our group members were well versed in web development concepts like html, javascript, css and bootstrap. This, however may not all be the case. Therefore, this blog aims to bring together a variety of students with a common objective in mind, and to induce them to collaborate and pursue their passions together.

4. LITERATURE SURVEY

All though our idea for blog website for college was outcome of problem faced during the pandemic time both by teachers and students. However some sites like GeeksforGeeks and W3school were used by us to learn some concepts of SQL and php we didn't knew earlier. We even used NITC official site to grab some data for us.

We even look through some blog websites like Help scout, Microsoft stories etc to get an idea of what features are needed for us as a education purpose blog site. Some sites like designwizard were used to select good colour template for our blogging platform.

5. SYSTEM REQUIREMENTS



The website architecture

5.1 HARDWARE REQUIREMENTS

- Since the application runs over the internet, the system must always be connected to the internet.
- Backup storage for retrieval of data in case of unexpected failures.
- Laptop or mobiles to access the site are required.

5.2 SOFTWARE REQUIREMENTS

- Operating System : Windows, Mac, or Linux
- Web Browser : All standard web browsers currently in use (Internet Explorer, Safari, Google Chrome, Mozilla Firefox)
- Web Server : Preferably Apache web server 5.6.33 or above
- Database : MySQL 5.1 or above
- PHP : Version 7.0.12 or above

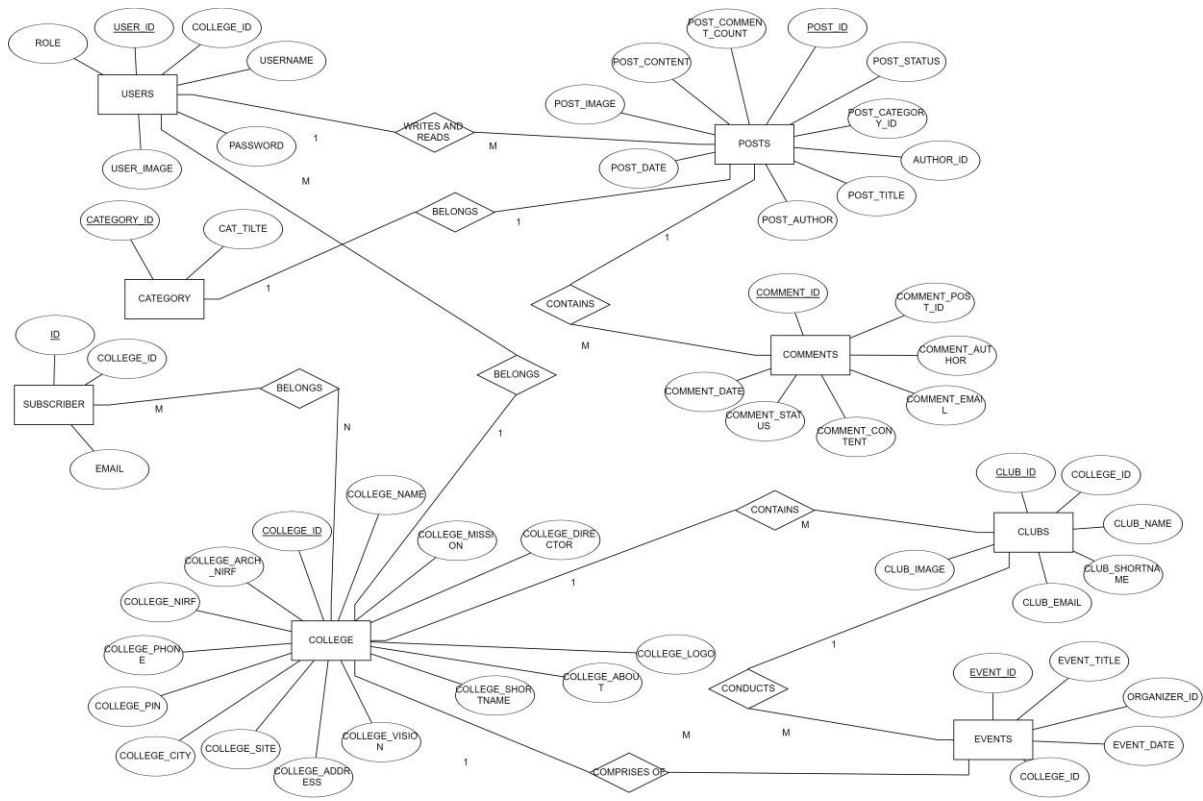
5.3 PERFORMANCE REQUIREMENTS

- A server is required to run this web application.
- The request response time will depend on network speed and latency of the server.
- So, a SQL server capable of handling approximately 1000 concurrent requests is required.
- The site load time depends on speed of internet connection and proximity from the server
- The load time may even depend on type of hardware on which site is running
- The load time also depends on type on content loading
- Loading time is also affected by number of users using site simultaneously

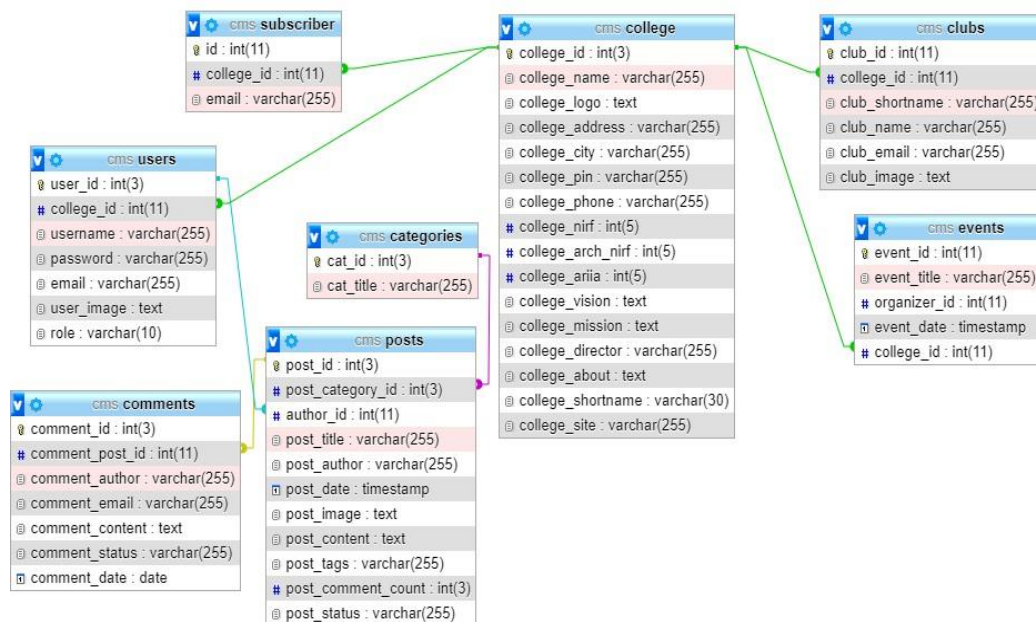
5.4 SAFETY AND SECURITY REQUIREMENTS

- Unique Login Id and password for every user.
- Password encryption
- Provision to prevent SQL injections
- Entry to admin panel through login only
- Data backup to be done periodically.
- Admin panel having feature of posting and manipulating the blogs is accessible by admins only.
- Only teachers and selected student representing a college club is selected as admin of blog website.
- User's id and password are secured and not visible to even admins.
- Users have option to save their login credentials.
- All Users have unique id and passwords.
- Password will be hidden while typing.
- Sign out features are given to users

6. ER DIAGRAM



7. RELATIONAL DATABASE DESIGN



8. DATABASE NORMALIZATION

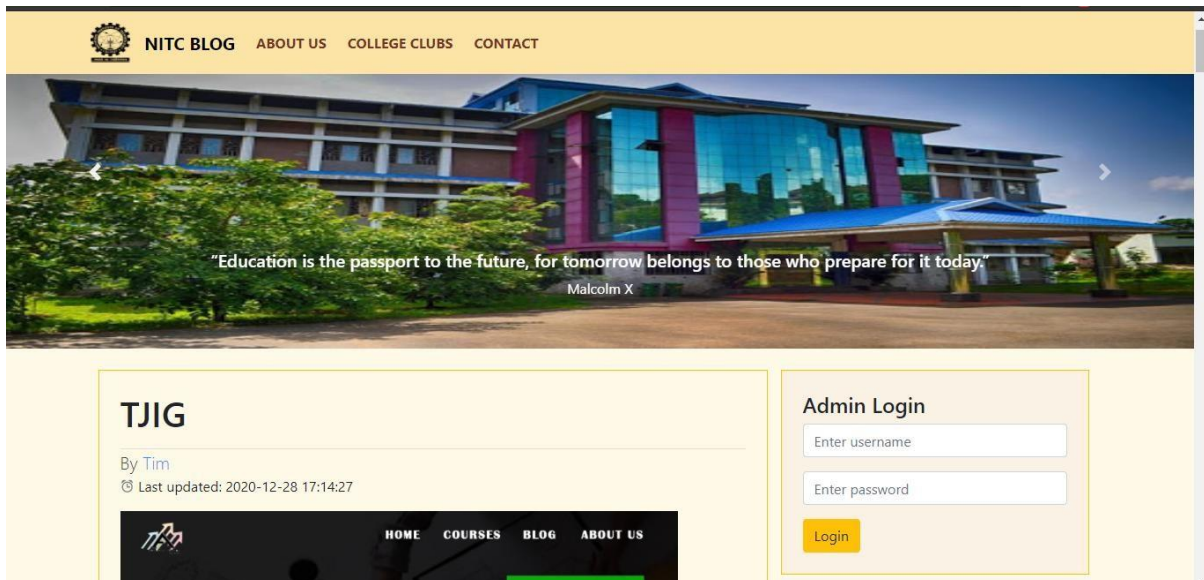
Keeping the possibilities for redundancies and functional dependencies in mind, we have normalized all the relations.

- Since we don't have any table with attributes holding multiple values hence our database satisfies **1NF** condition.
- In our database all relations are only from single prime attribute to a non-prime attribute. Since key contains only single primary key there is no partial dependency in any of the relations. Hence this also satisfies **2NF** condition.
- As seen all tables have key as single primary key and also all relations are from a key to a non-prime attribute. Thus no transitive dependency can occur in our database thus satisfy conditions of **3NF**.
- Also since all relations are from prime-attribute to other nonprime-attribute and all key contains only one prime attribute. Hence all satisfy **BCNF** condition as all relations are from super key to other attribute.

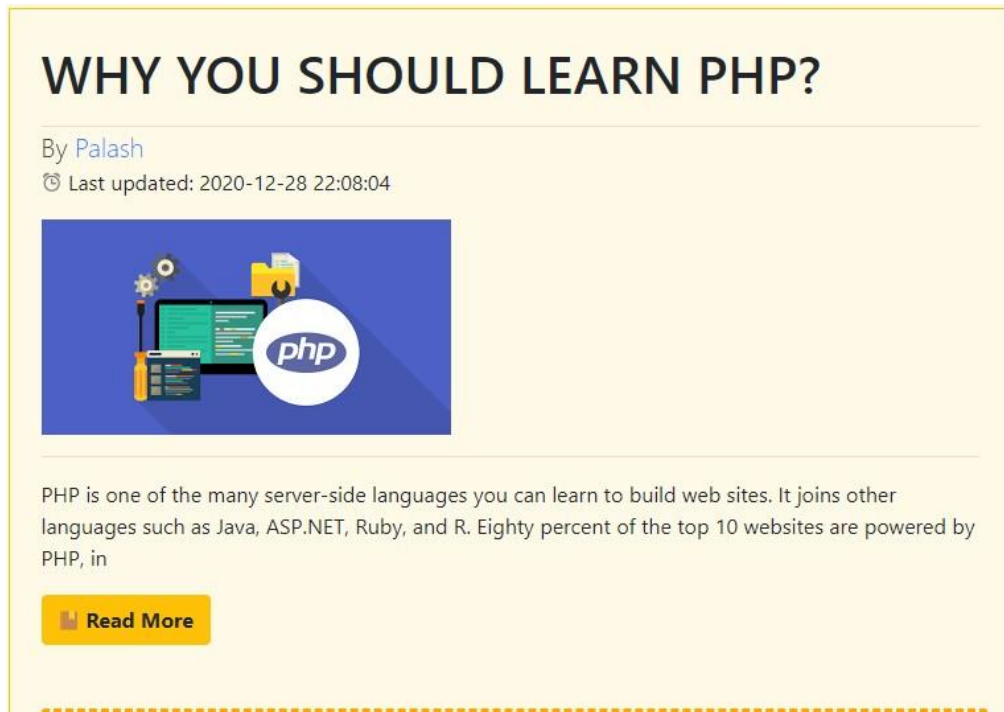
9. IMPLEMENTATION

HTML	HTML is standard mark-up language for documentation of content to be displayed on website
CSS, Bootstrap	They are used for styling our blog website and thus create better interface
JavaScript	This is used to handle the interaction of user with the site and also to add up some functionality.
PHP	PHP is used here to provide back-end of our website. It also acts as a link between our database and the front-end of website.
MySQL	It is an open-source relational database management system. It helps in storing all information and data of our site.

10. GRAPHICAL USER INTERFACE



HOME PAGE



BLOG POST

Admin Login

Search by tags

Topics

- Bootstrap
- Javascript
- Java
- MySQL
- C++
- Python
- Html

Upcoming Events

Intro To AI Workshop
Organizer: AI Club
DATE: 30-12-2020
TIME: 16:48:33

SIDEBAR



NITC BLOG

- ABOUT US
- COLLEGE CLUBS
- CONTACT

WHY YOU SHOULD LEARN PHP?


By [Palash](#)
🕒 Last updated: 2020-12-28 22:08:04



PHP is one of the many server-side languages you can learn

COLLAPSABLE NAVBAR

National Institute Of Technology, Calicut



Rankings

NIRF : 23
Architecture NIRF : 3
ARIIA Rank : 8

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WHY YOU SHOULD LEARN PHP?

By Palash

2020-12-28 22:05:20



PHP is one of the many server-side languages you can learn to build web sites. It joins other languages such as Java, ASP.NET, Ruby, and R. Eighty percent of the top 10 websites are powered by PHP, including Facebook and Wikipedia. PHP has consistently demonstrated its ability to scale the largest web sites while at the same time having an easier learning curve than other languages. This article explains why you should learn PHP and what it can do for your career. PHP is a programming language that is very similar to C but has a few small differences. For example, instead of creating a code string, you can write the code and save it as a file instead of using curly brackets. Its name was originally an acronym for "personal home page" tools, but it has since become associated with "PHP: Hypertext Preprocessor."

Leave a Comment:

Comments:

BLOG POST

Blog Admin

Home Tim

Dashboard

Profile

Categories

Posts

Comments

Users

Events

WELCOME TO ADMIN Tim

POST COUNT

2

COMMENTS DONE

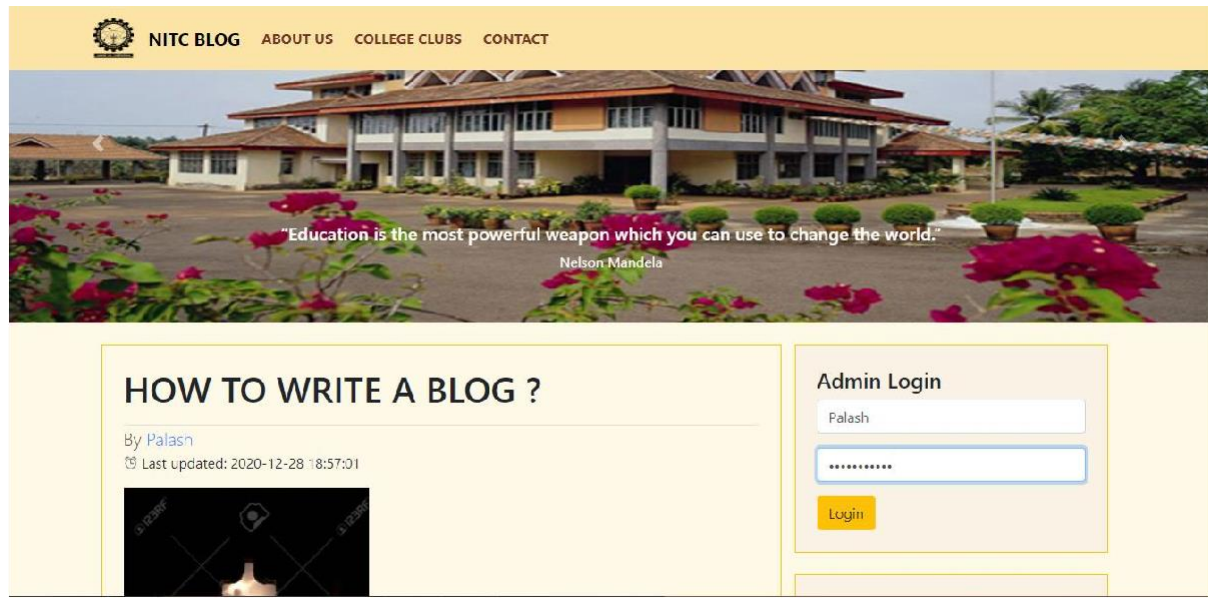
1

CATEGORIES COVERED

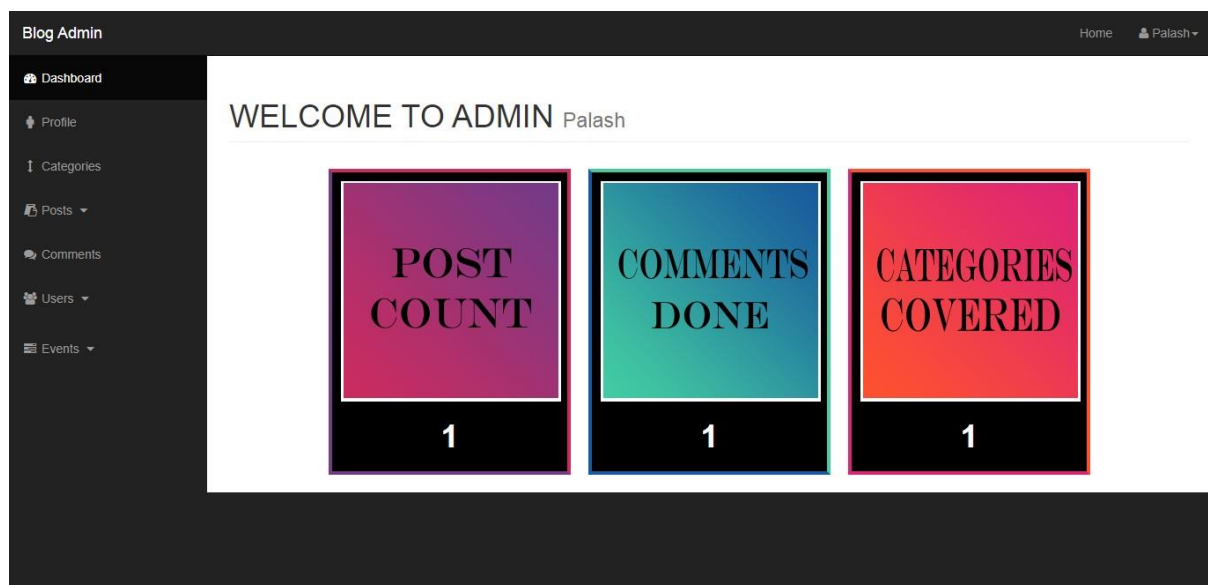
2

ADMIN PANEL

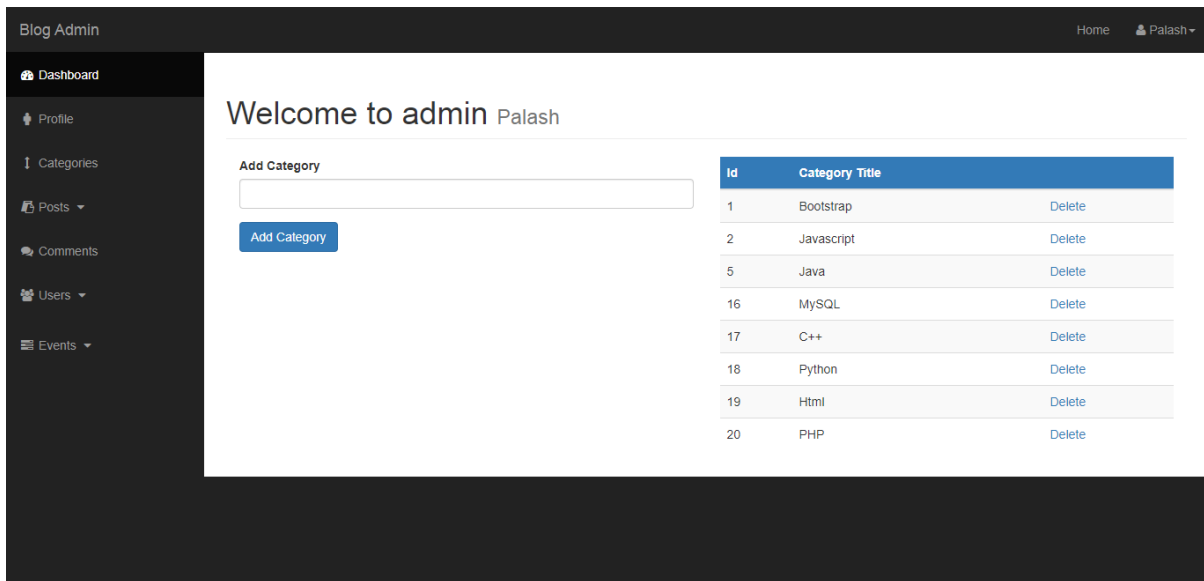
11. TESTING



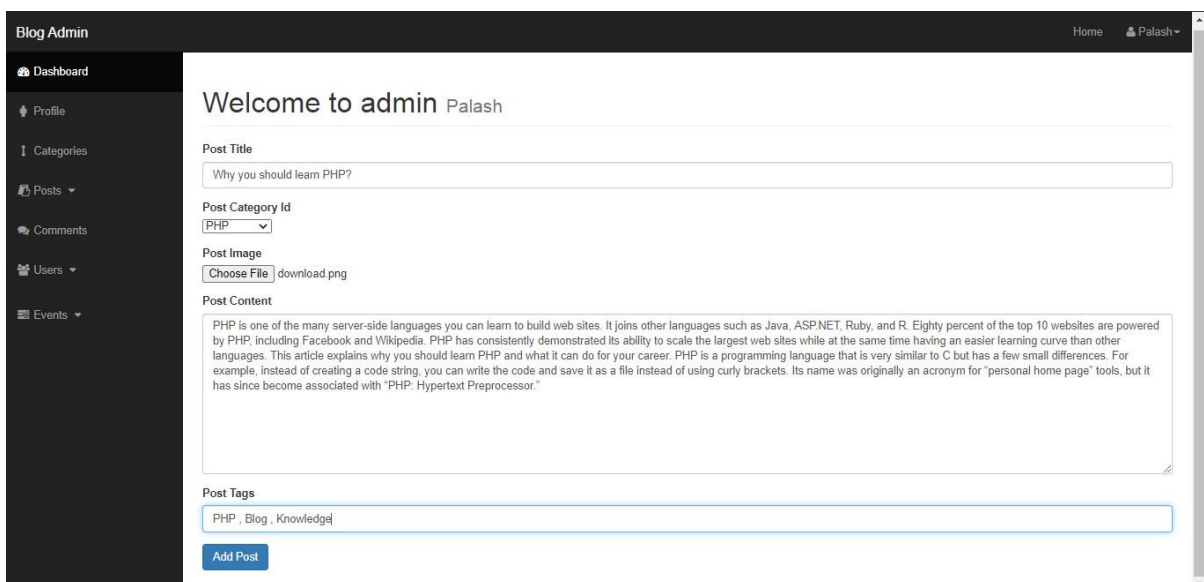
- a. Here at login panel admin login to the admin panel where he can post new blogs.



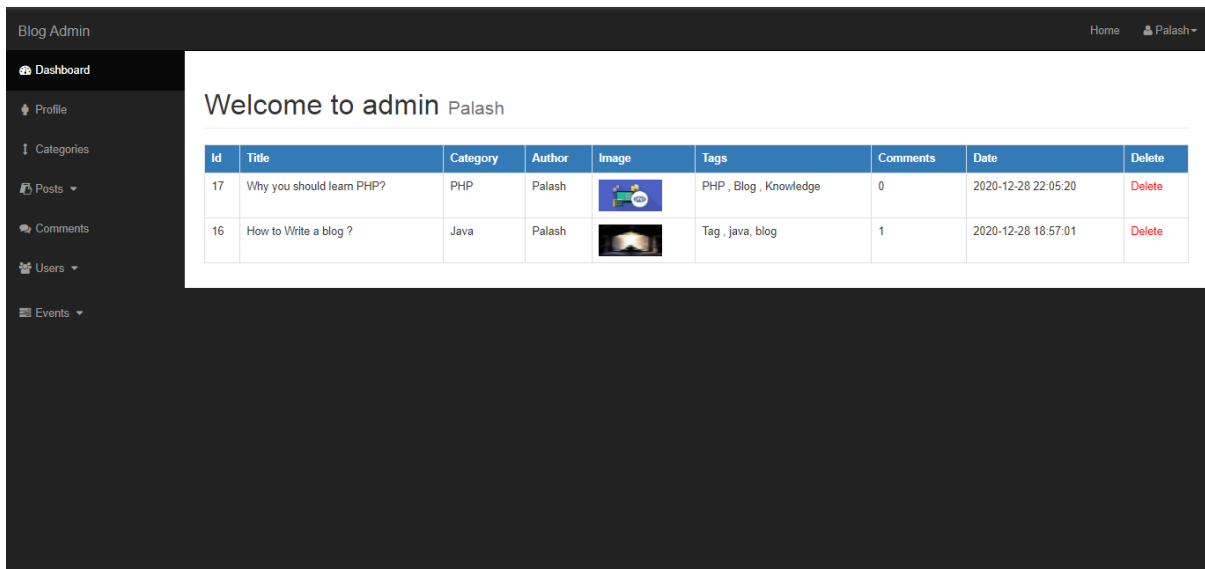
- b. User first get to see dashboard where all states related to his activity is shown.



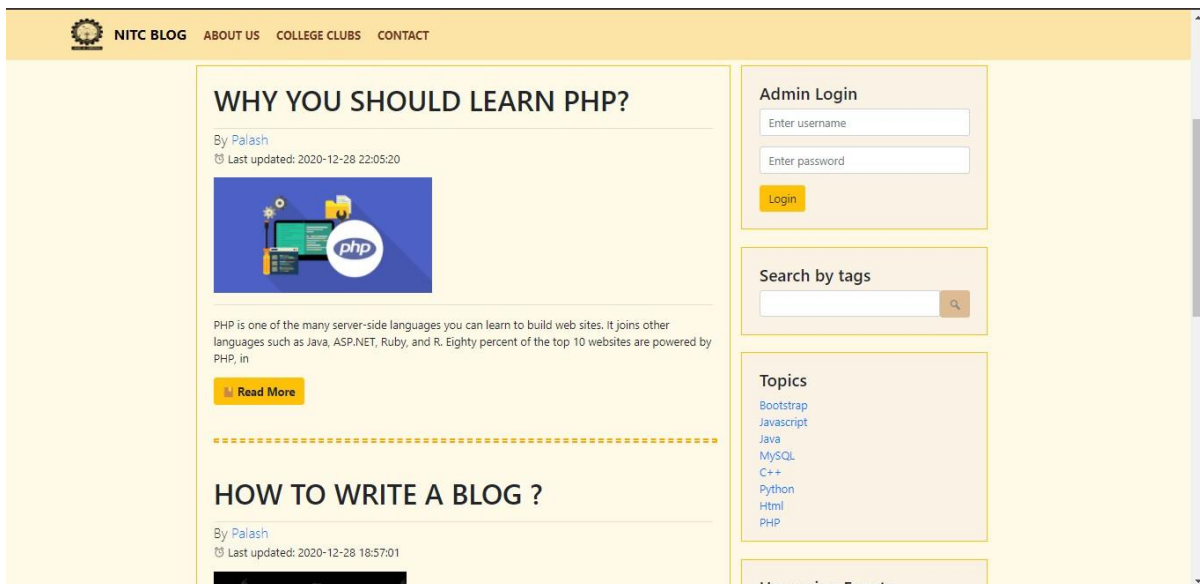
- c. Here at categories user can add new post. As here we add PHP as a new category for our upcoming post.



- d. Here at posts->Add posts . Admin can publish a post. Give related image and give some tags.



- e. From posts admin can see all the posts made by him. Also he can delete posts if they are not required now.



- f. See this is post made by us now. Here to read full content you have to click on Read More. Also in sidebar some features are shown, they include Admin login, search by tags, seeing post related to categories you like by clicking on available topics, and list of upcoming events to be held in college with date and timing.

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Leave a Comment:

Comments:

- g. After clicking Read More we reach this page. Here we can read full post and also comment on it. Now admin decides to publish it or not.

Blog Admin

Home Palash

Dashboard

Profile

Categories

Posts

Comments

Users

Events

Welcome to admin Palash

Id	Comment	Author	Email	Post	Date	Status	Approve	Unapprove	Delete
1	How will it work ?	Naman	naman@gmail.com	How to Write a blog ?	2020-12-28	unapprove	Approve	Unapprove	Delete
2	Can we use node in place of php?	Aman	aman@gmail.com	Why you should learn PHP?	2020-12-28	approve	Approve	Unapprove	Delete

- h. Here admin can see all comments and approve them.

12. RESULTS

So our blog website is ready for working. We have removed all the bugs and tested it well with all test cases. This web application is now production ready. All relations of the database for this website is normalized and all constraints are properly considered in designing of the database.

13. CONCLUSION

We can confidently say that we were able to successfully implement the blogging system for NITC. We have used html, CSS, bootstrap, PHP and MYSQL to achieve our target. This blogging system allows a viewer to view the blogs in reverse chronological order. It also gives the viewer the freedom to view articles of his/her interest, or a particular topic. The viewer also has the option to subscribe to the newsletter of the institute. The admin is given the privilege of deciding what stays on the blog, what comments are appropriate, and the engagement of the articles posted. We had to modify our goals a bit in order for the blog to be reasonable and interesting.

14. REFERENCES

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- <https://stackoverflow.com/>