

Education Blog System

A Project-II Report

Submitted in partial fulfillment of requirement of the

Degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE & ENGINEERING

BY

Aashi Bajpai
EN20CS301005

Aditi Gupta
EN20CS301018

Under the Guidance of
Prof. Shrikant Telang



Department of Computer Science & Engineering
Faculty of Engineering
MEDI-CAPS UNIVERSITY, INDORE- 453331

Jan-June 24

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Report Approval

The project work **Education Blog Website** is hereby approved as a creditable study of an engineering application subject carried out and presented in a manner satisfactory to warrant its acceptance as prerequisite for the Degree for which it has been submitted.

It is to be understood that by this approval the undersigned do not endorse or approved any statement made, opinion expressed, or conclusion drawn there in; but approve the “Project Report” only for the purpose for which it has been submitted.

Internal Examiner

Name: Prof. Shrikant Telang

Designation: Assistant Professor

Affiliation: Medi-Caps University

External Examiner

Name:

Designation

Affiliation

Declaration

We hereby declare that the project entitled **Education Blog Website** submitted in partial fulfillment for the award of the degree of Bachelor of Technology in 'Computer Science & Engineering Department' completed under the supervision of **Prof. Shrikant Telang, Assistant Professor Department of Computer Science & Engineering**, Faculty of Engineering, Medi-Caps University Indore is an authentic work.

Further, we declare that the content of this Project work, in full or in parts, have neither been taken from any other source nor have been submitted to any other Institute or University for the award of any degree or diploma.

Aashi Bajpai

Aditi Gupta

EN20CS301005

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Date -

Certificate

I **Prof. Shrikant Telang** certify that the project entitled **Education Blog Website** submitted in partial fulfillment for the award of the degree of Bachelor of Technology by **Aashi Bajpai, Aditi Gupta** is the record carried out by them under our guidance and that the work has not formed the basis of award of any other degree elsewhere.

Internal Guide

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Medi-Caps University, Indore

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I express my heartfelt gratitude to my **Internal Guide, Professor Shrikant Telang, Department of Computer Science & Engineering, Medi-caps University**, without whose continuous help and support, this project would ever have reached to the completion.

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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 Medi-caps University. 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 primaries 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 endeavor is to bring together various students, and ensure that a vibrant discussion takes place, and a competitive spirit remains between them.

Keywords:

JAVA, MYSQL, php MyAdmin, XAMPP

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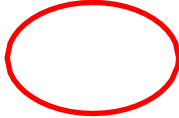

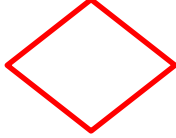
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Abbreviations

Sr.no.	Abbreviation	Full form
1	EBW	Education Blog Website
2	Ed Blog	Education Blog

Notations & Symbols

Sr.no.	Name of Symbol	Symbol
1	Data Flow	
2	Attribute	
3	Source	
4	Relation Ship	

Chapter-1

Introduction

1.1 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 Medi-Caps University. This Educational Blog system is a web application intended to convey students of Medi-Caps University 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 education server portal. Hence this blog website will give them functionality to share these 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 is 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.

1.2 Literature Review:

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 Geeks for Geeks and W3school were used by us to learn some concepts of SQL and php we didn't know earlier. We even used MU 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 an education purpose blog site. Some sites like design wizard were used to select good color template for our blogging platform.

1.3 Objective:

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.
- 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.

1.4 Significance:

This Educational Blog system is a web application intended to convey students of Medi-Caps University 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 videos, research papers, news, links, some articles and many more stuffs which are not to be shared in our education server portal. Hence this blog website will give them functionality to share these stuffs also students will be allowed to comment and provide their views on the post. Only teachers will be having access to administration of site so they can control they comments and activities on the blog post. Additionally, it is seen that college event organizing groups have to use different social mediato 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. Additionally, a calendar keeping dates of all the upcoming events and pending task of students will be shown to student.

1.5 Source of Data

This web application is using that Java, MySql, phpMyAdmin, xampp and This Educational Blog system is a web application intended to convey students of Medi-caps University regarding all the information teachers want to share related to their subject out of their books course.

Chapter-2

Purpose And Background

Motivation

2.1 PURPOSE

This Educational Blog system is a web application intended to convey students of MU 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 videos, research papers, news, links, some articles and many more stuffs which are not to be shared in our education server portal. Hence this blog website will give them functionality to share these stuffs also students will be allowed to comment and provide their views on the post. Only teachers will be having access to administration of site so 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 mediato 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. Additionally, a calendar keeping dates of all the upcoming events and pending task of students will be shown to students.

2.2 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 tothe 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 closer relationship between the teacher and students.

Our group came up with the idea of a blogging system for MU, 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 studymaterials 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 projectswith 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 developmentconcepts 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.

Chapter-3

Design Decision

3.1 Some key features that will influence our database design are-

- Only registered user will be able to post.
- User who posts get a feature of control panel where he will be given states related to posts and have special features to maintain comments and other activities related to post.
- Blog posts are separated on basis of the categories.
- Blogs are displayed in reverse chronological order.
- Login and registration feature are different for people who posts and for one who just reads blogs.

3.2 BEHAVIOR:

Since blogs are divided in categories, view by categories is provided. To implement this, we will be using view feature of SQL. Also search by name is also included, for this user have to include blog post name at search bar and this runs the SQL query at backend of server. Also, it will not be necessary to write full blog post name just some words will be sufficient to search. For this feature to work string comparison will be used and searching is done on the database.

For all queries to be performed related to database, user won't have to write any query. Some proper user interface will be provided where they can run the related query and retrieve result in better looking interface.

3.3 DBMS PLATFORM:

- For database we will use - phpMyAdmin version 4.6.4 All version more than this will work fine. However, if version is older, then it may give some different output than expected.
- Server version: 5.6.33
- PHP Version: 7.0.12
- Some more updates versions of this are available now. All will work fine with this.

3.4 BACKUP AND MAINTENANCE:

- Backup of database will be kept.
- Periodic testing and debugging will be done based on users and admins feedbacks.
- SQL server would be having database maintenance routine scheduled monthly.
- In case of any error, re-initialization of program will be done.

3.5 DESIGN AND IMPLEMENTATION CONSTRAINTS

- SQL server must be running all day long.
- Only specific users will have ability to post in blog site.
- Admin have control on comments and other features of posts. However, accessing database for them also is not be allowed.
- Implementation of the database using a centralized database system.
- Users must be enabled to access the website and login with their respective username and password credentials only.
- The challenges in developing the product will involve scaling it to the required number of stakeholders.
- So, providing fast request response time will be a necessity.

3.6 SECURITY:

Using proper login system ensures that no other user will be able to make changes in other people post. By providing features of controlling comment section of post, blogger can control content being shown on the site.

Also, by providing regular backups we keep your data safe, so in case of some disparity data can be restored and blog site will work properly.

Chapter-4

System Specification

4.1 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.

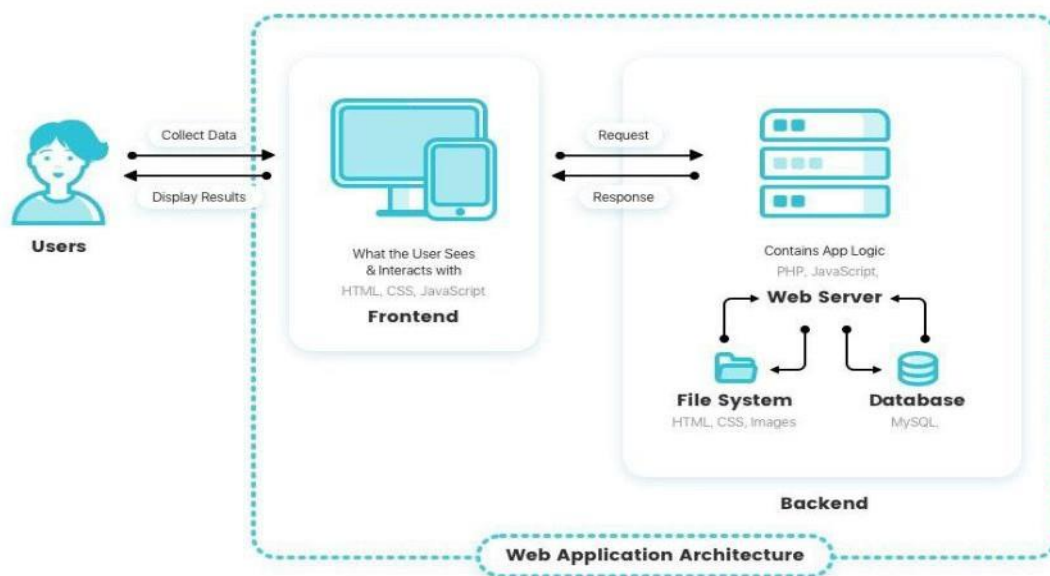


Fig 4.1

4.2 SOFTWARE REQUIREMENTS

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

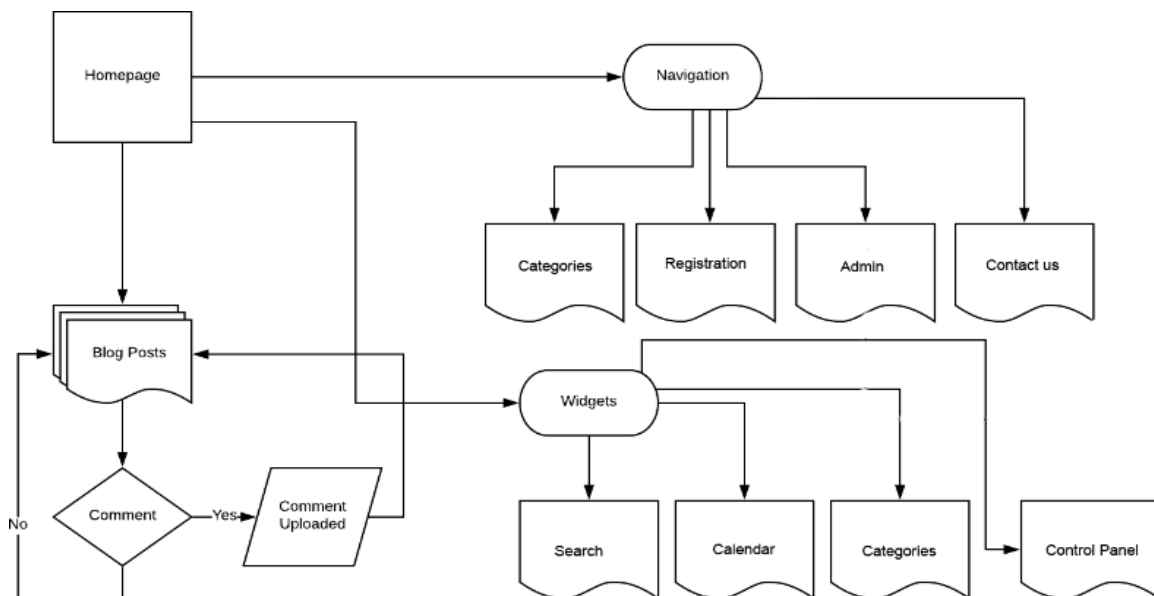
4.3 PERFORMANCE REQUIREMENTS

- 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 are 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

4.4 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



The website architecture

Fig 4.2

4.5 Functional Requirements

- **R1- login:**
 - **R1.1: Admin login**
 - **Input:** Email address and password.
 - **Output:** User would be able to login to the web application.
 - **Description** A user who is not registered can create a new account by entering name, mobile no. email-id and password.
- **R2-Registration**
 - **R2.1: user details**
 - **Input:** Email adds.
 - **Output** -display message for successful registration
 - **Description-** Form takes the applicants personal and academic data like degree, d. O. B., name, phone no, experience etc. to register them.
- **R3- Post: -**
 - **R3.1** – Having account to post.
 - **Input-** Email address and password.
 - **Output-** Admin have capacity to delete and update their posts also they have ability to delete the comments on their posts.
 - **Description-** Posts can be done only through panel which can be accessed only some specific people.

4.6 Non-Functional Requirements

1. 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 server capable of handling approx. 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.

2. Security Requirements:

- Unique Login Id and password (may or may not be unique) for every user.
- 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 no 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 and change password features are given to users.

3. Reliability

- New posts in database are reflected without any delay.
- Any registration by the user is reflected in database almost instantly.
- Posts are shown in reverse chronological order, hence newest posts will be shown first.
- Application is made to protect inside information from users, only few selected people have access to handle all features of blog website.

4. Usability

- In case of invalid situations an error message pops up on the screen, directing the user so as to resolve the issue.
- This application works in every browser.
- This application is responsive, so works great with every size of screen.

5. Correctness

- To provide only reliable content in the post only few people are allowed to handle admin panel.
- Admin have full control to manipulate comments and posts. So, in case they don't like
- the comments on their posts they can del

Chapter 5

UML Diagrams

5.1 ER Diagram:

The Entity Relational Model is a model for identifying entities to be represented in the database and representation of how those entities are related. The ER data model specifies enterprise schema that represents the overall logical structure of a database graphically.

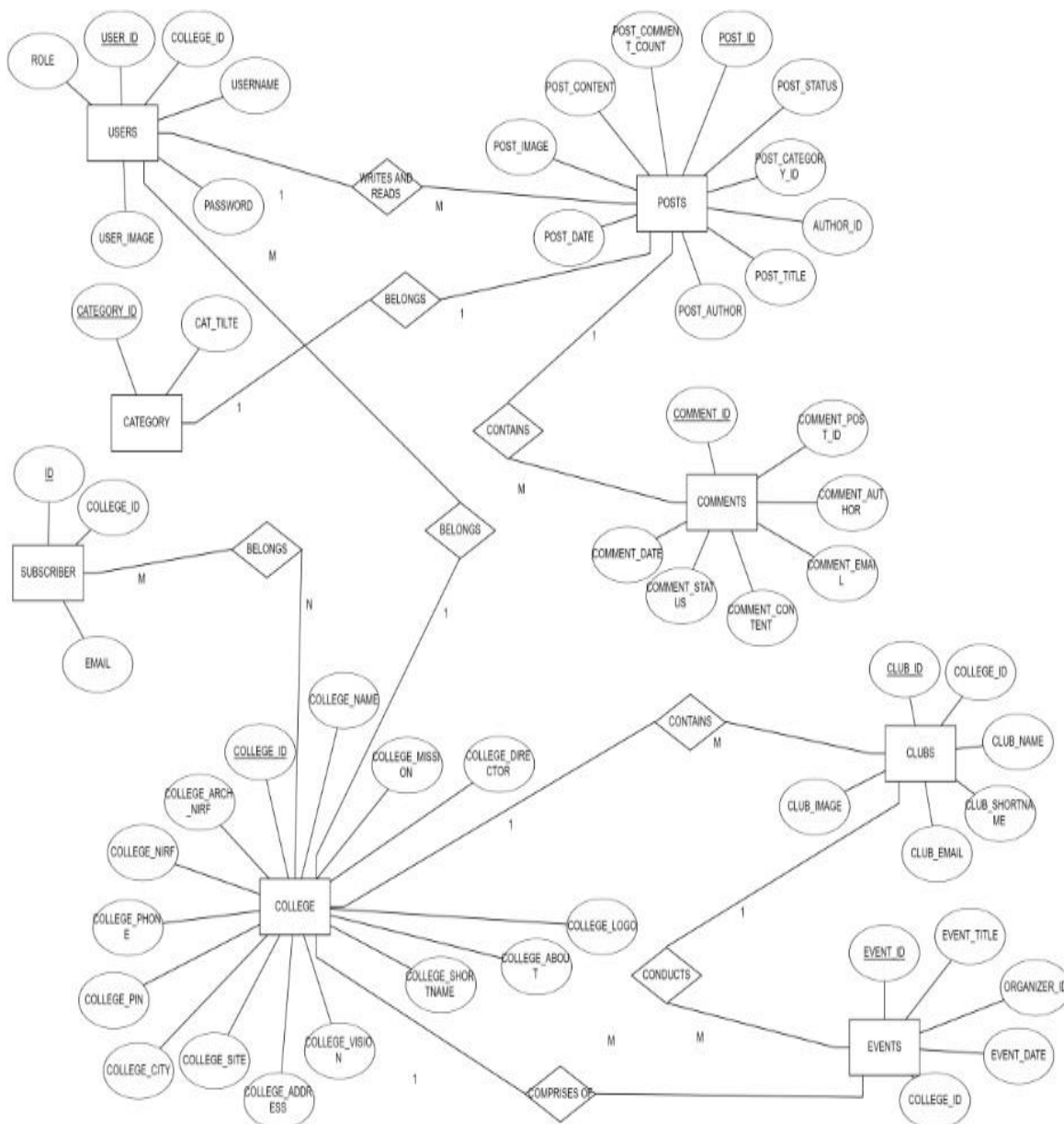


Fig 5.1

5.2 Class Diagram:

A class diagram in the Unified Modeling Language (UML) is a type of static structure diagram that describes the structure of a system. Class diagrams are the main building blocks of every object-oriented method. The class diagram can be used to show the classes, relationships, interface, association, and collaboration.

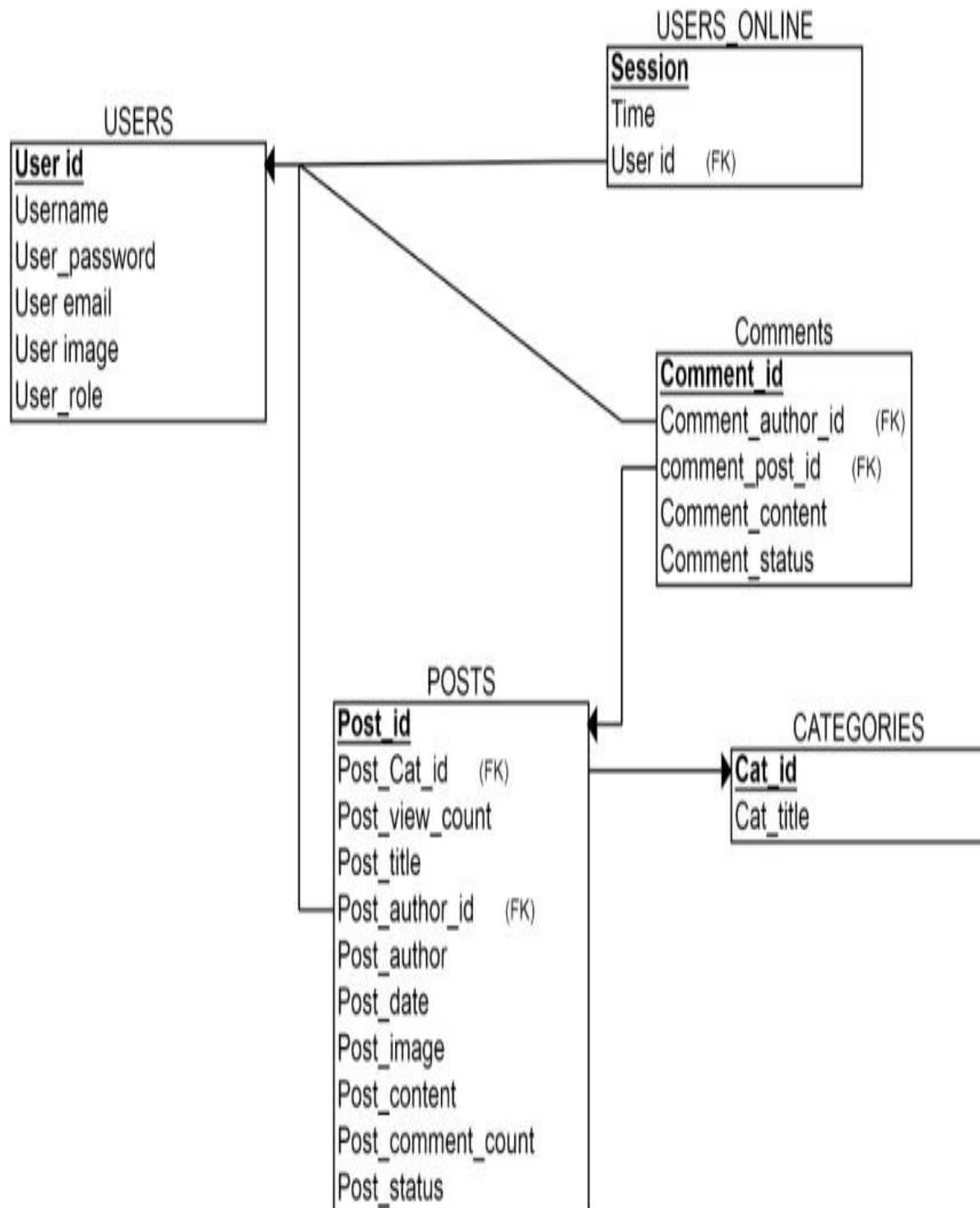


Fig 5.2

5.3 Use-Case Diagram:

The main purpose of a use case diagram is to portray the dynamic aspect of a system. It accumulates the system's requirement, which includes both internal as well as external influences. It invokes persons, use cases, and several things that invoke the actors and elements accountable for the implementation of use case diagrams. It represents how an entity from the external environment can interact with a part of the system.

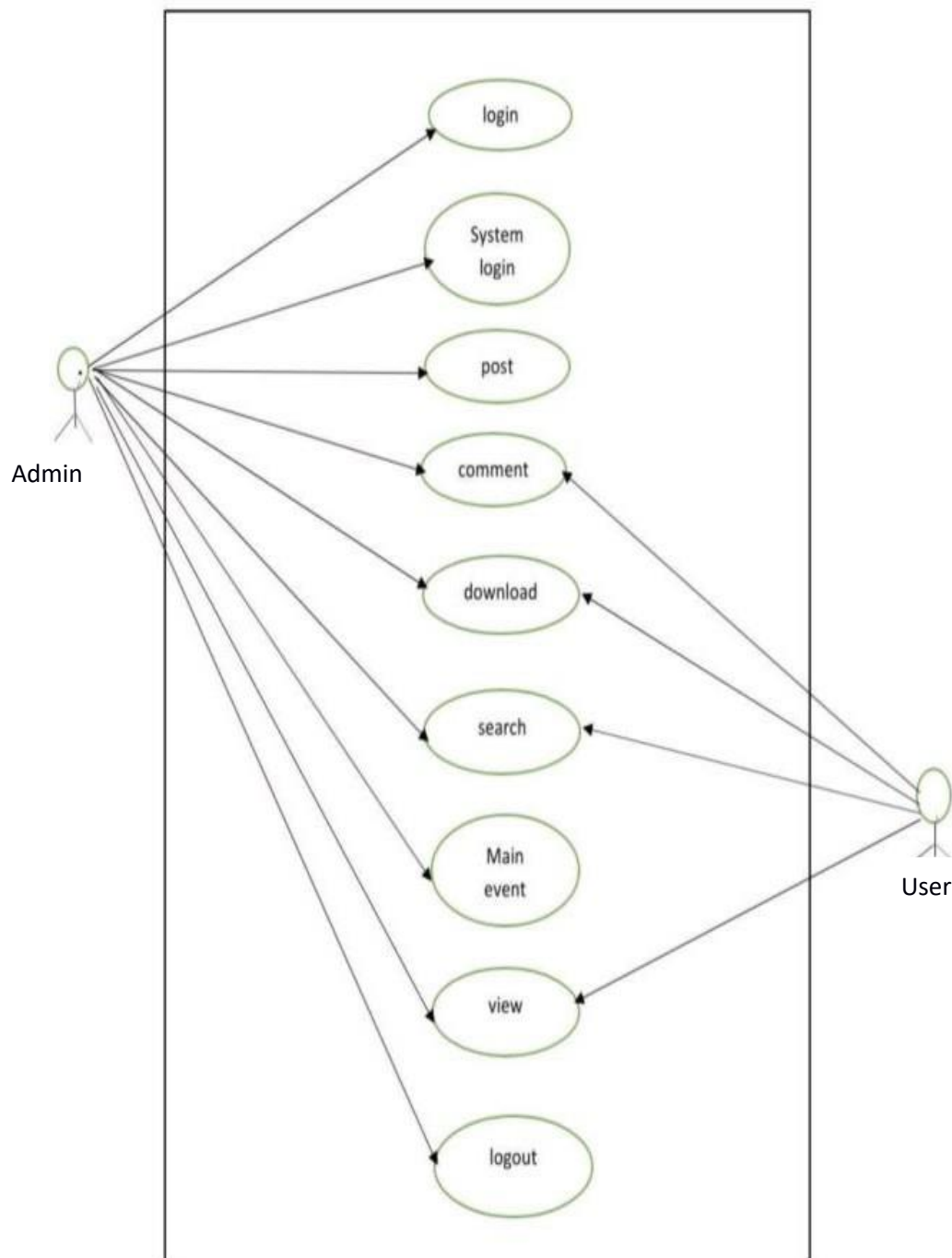


Fig 5.3

5.4 Activity Diagram:

Activity diagram represents the flow from one activity to another activity. They focus on the flow of activities involved in a single process. It also shows how these single-process activities depend on one another.

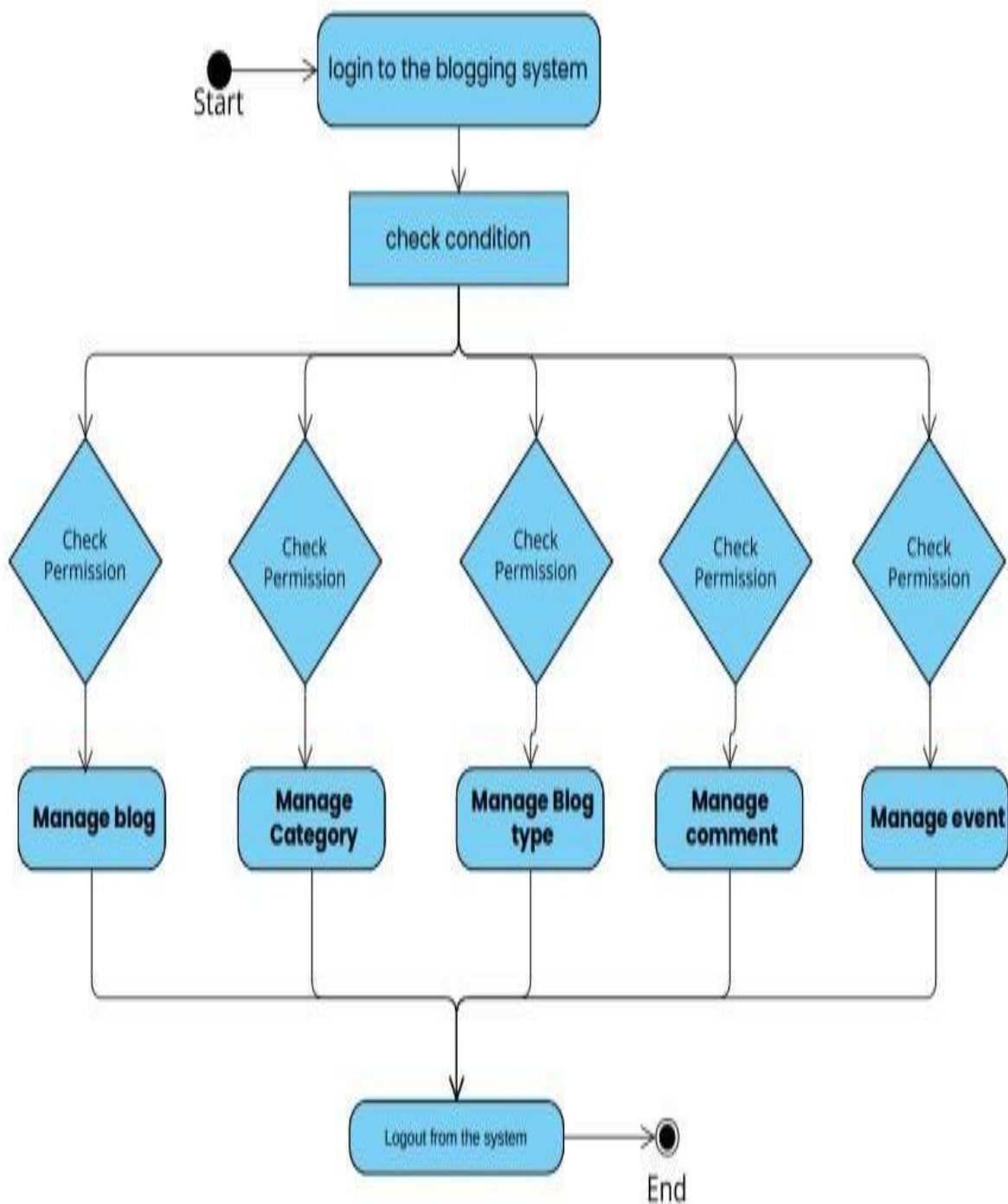


Fig 5.4

Chapter 6

Implementation And Graphical User Interface

6.1 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.

Table 1

6.2 Graphical User Interface:

HOME PAGE

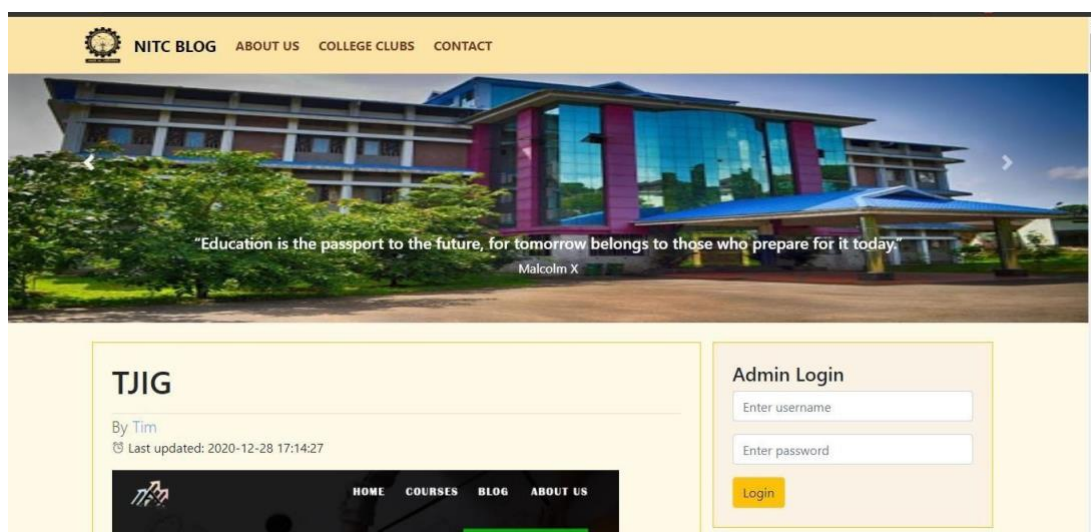



Fig 6.1

BLOG POST

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 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, in

[Read More](#)

Fig 6.2

SIDEBAR

Admin Login

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

Fig 6.3

COLLAPSABLE AVBAR



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

Fig 6.4

Footer with Newsletter Login

Medi-Caps University, Indore 	Rankings NIRF : 23 Architecture NIRF : 3 ARIIA Rank : 8	Address Details A A B Road, Indore, Madhya Pradesh Indore 453331 Phone: 079 6902 4444	Newsletter Join our Newsletter for daily updates. <input type="text" value="Enter email address"/> <input type="button" value="Subscribe"/>
--	---	--	---

Fig 6.5

BLOG COMMENT

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:

Fig 6.6

TESTING

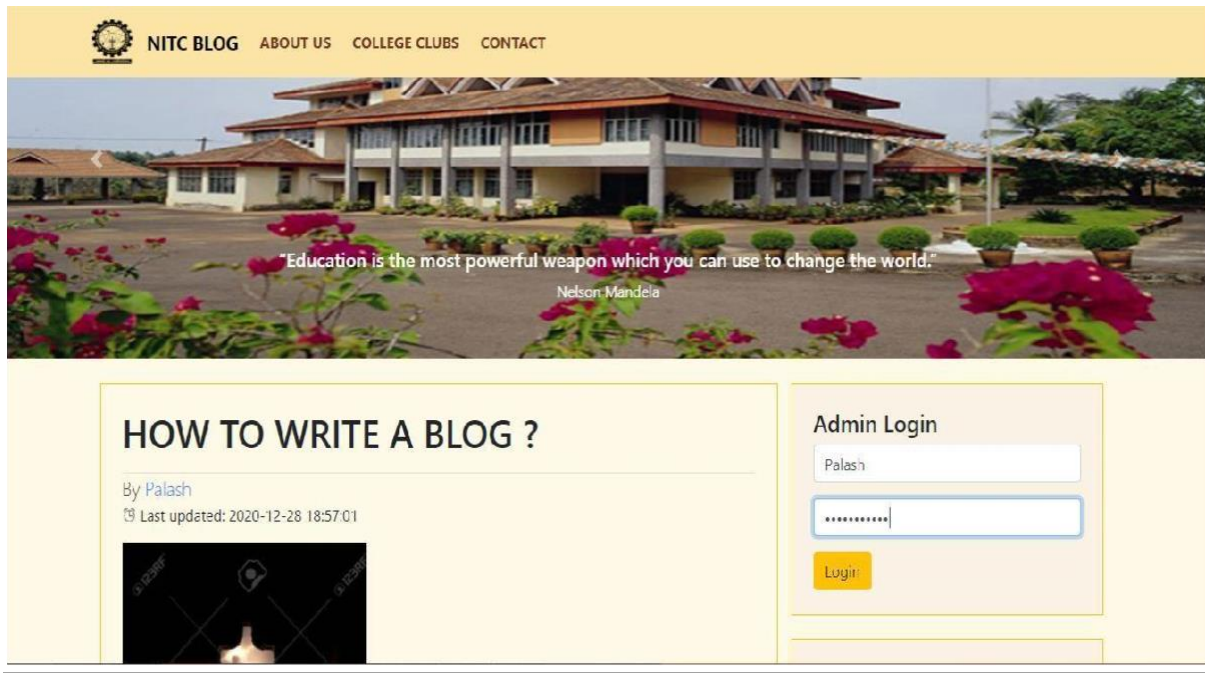


Fig 6.7

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

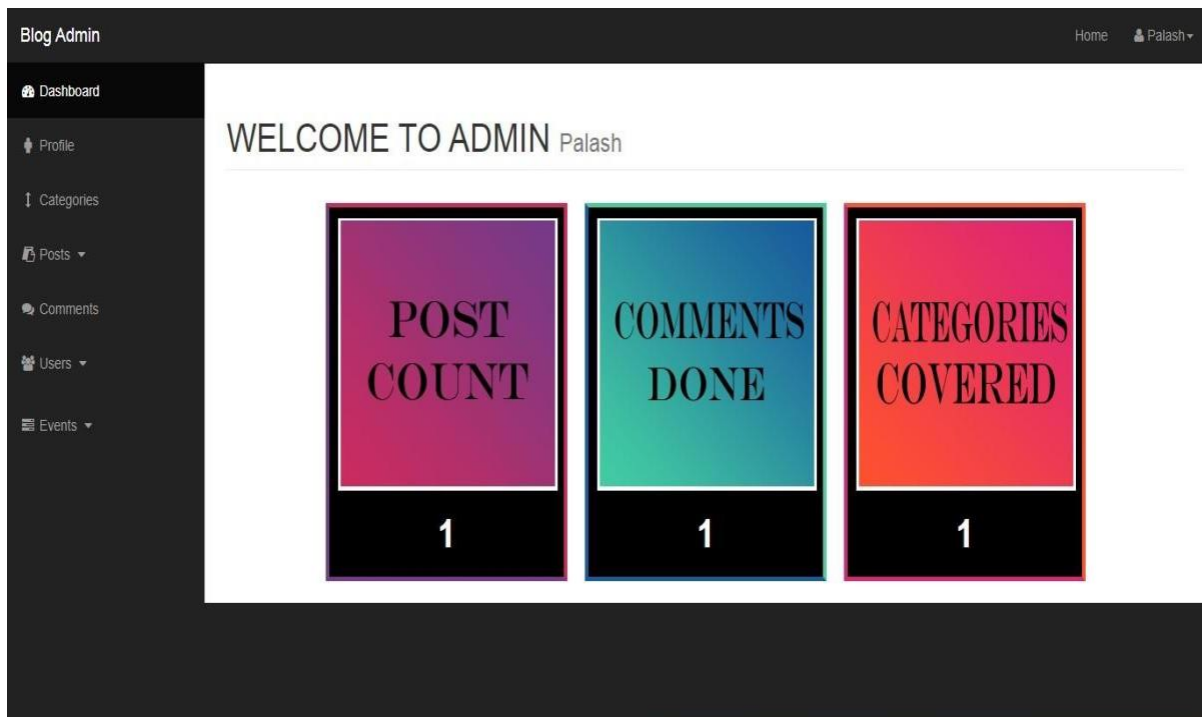


Fig 6.8

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

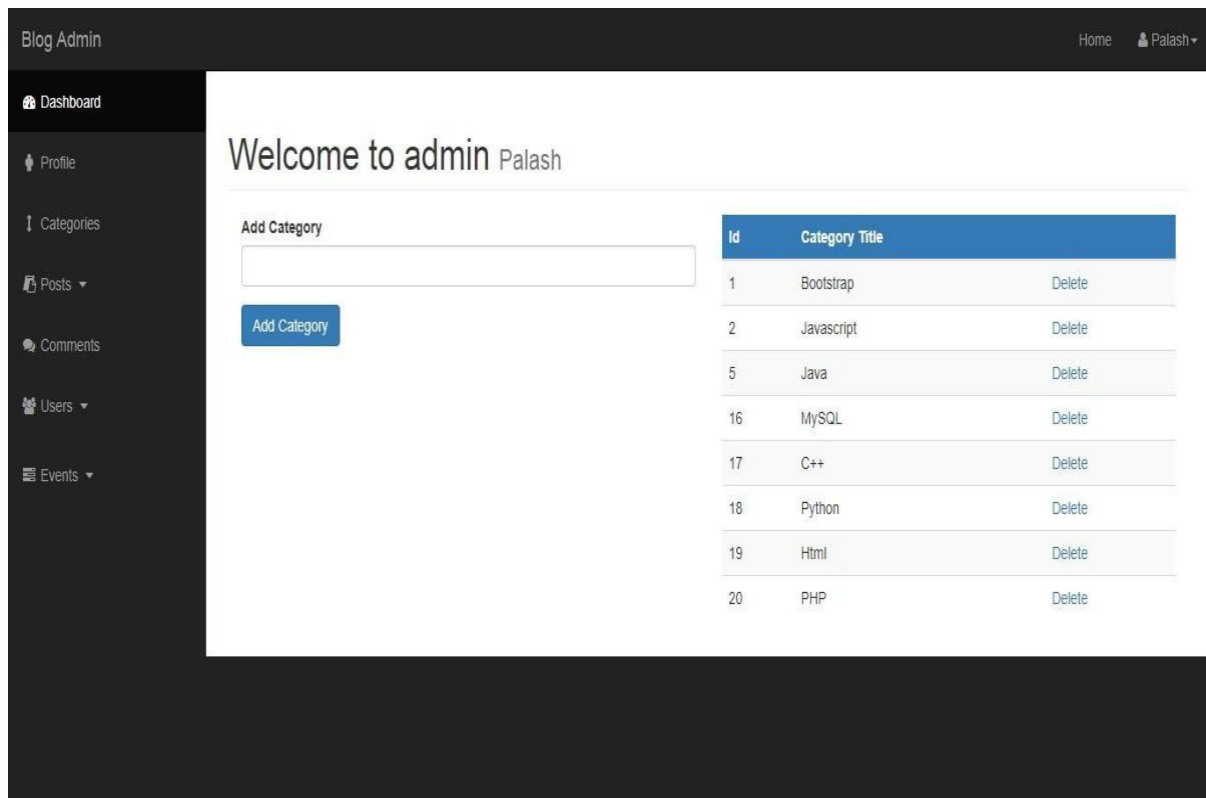


Fig 6.9

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

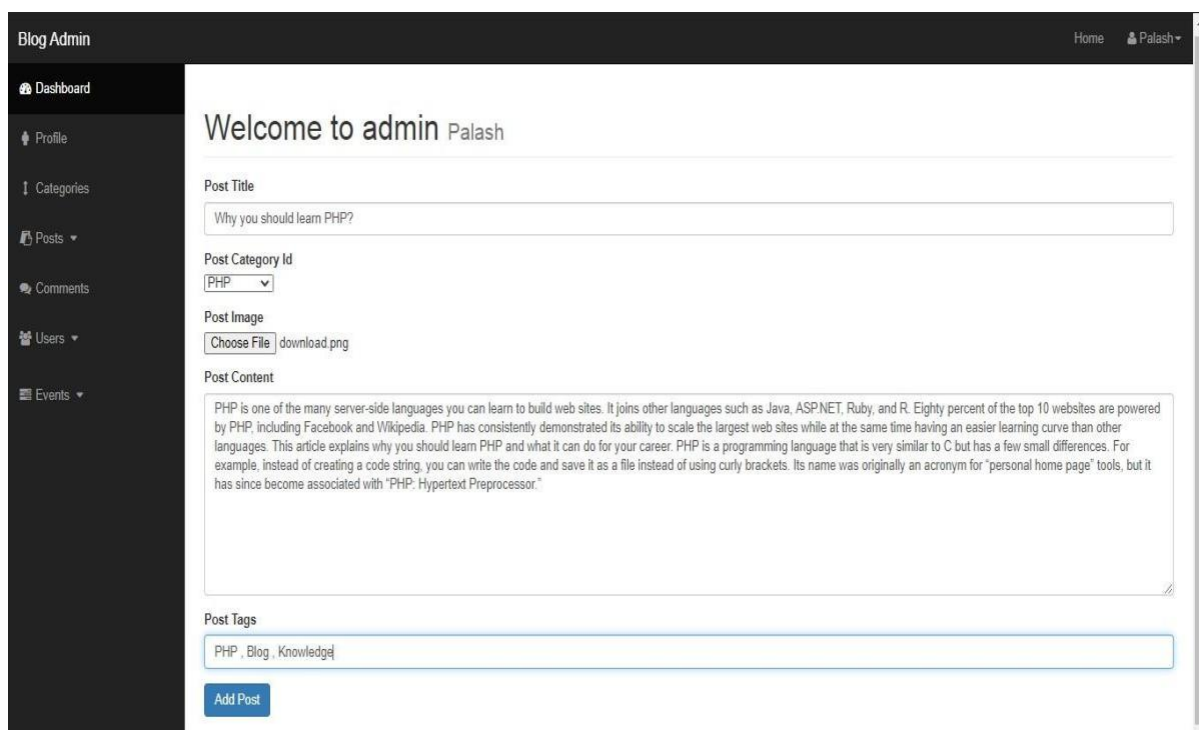


Fig 6.10

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

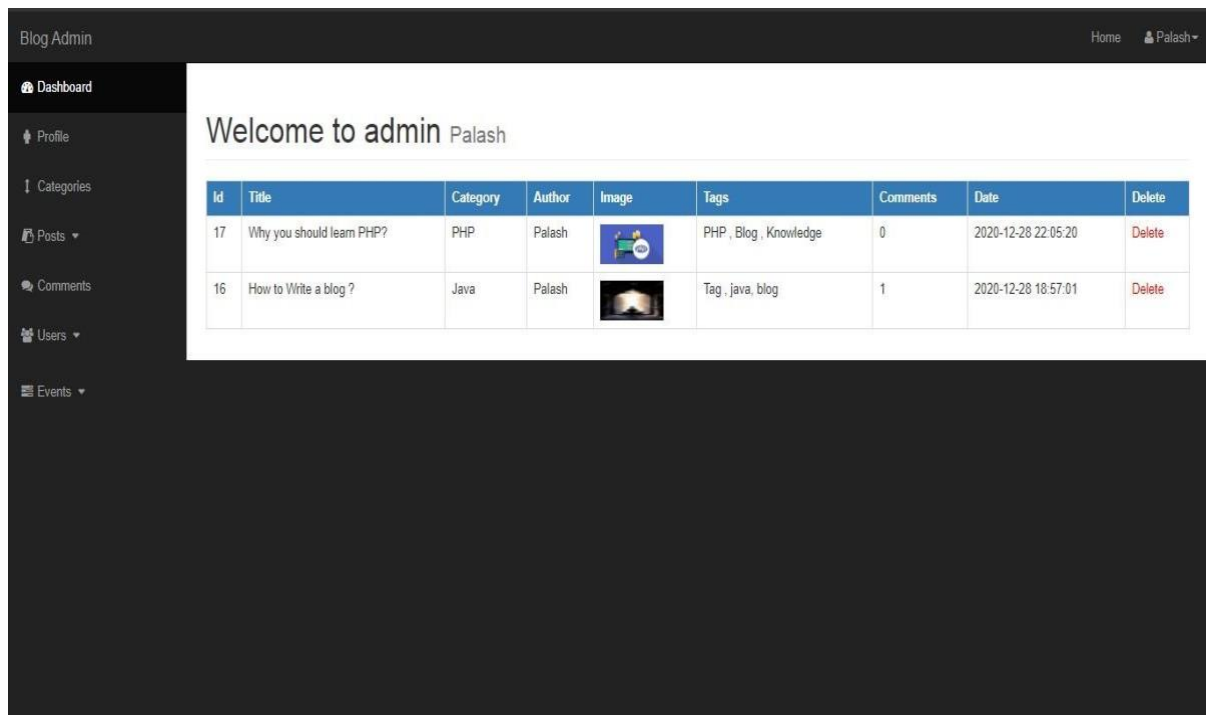


Fig 6.11

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



Fig 6.12

- 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

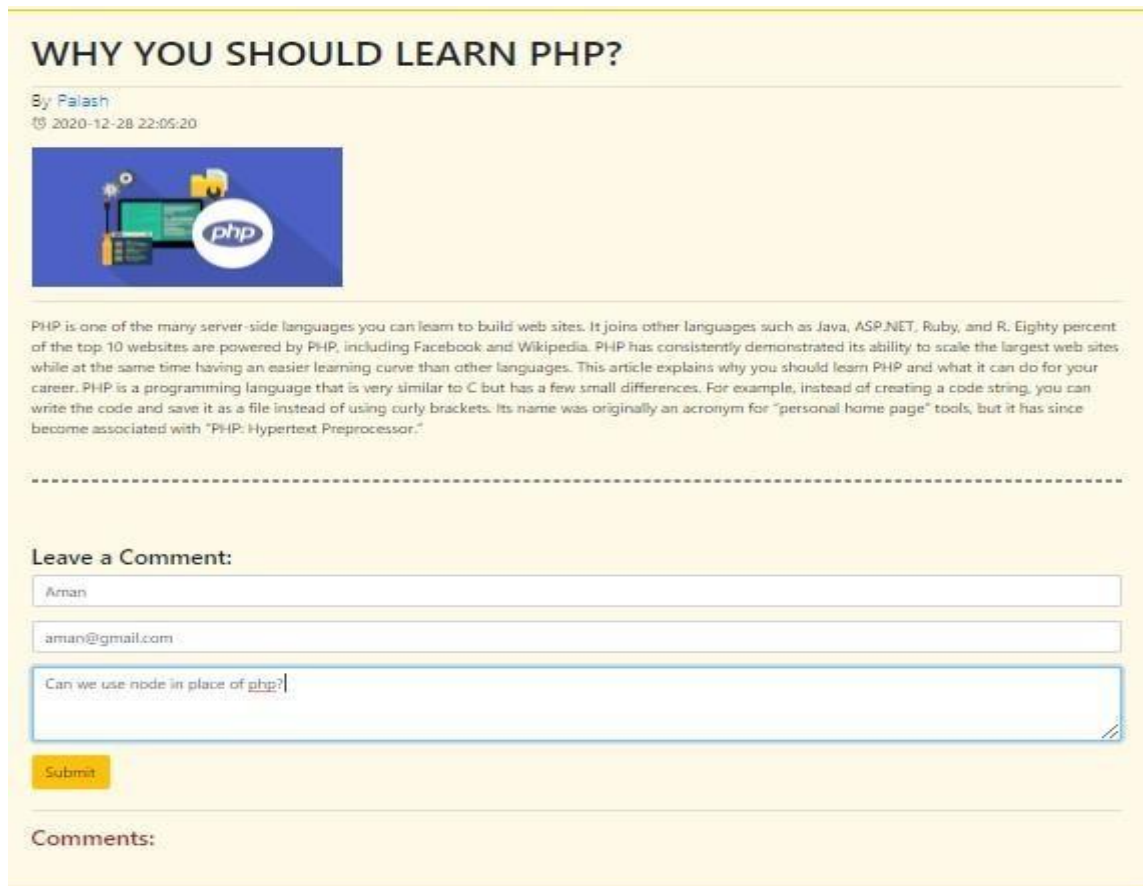


Fig 6.13

- 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.

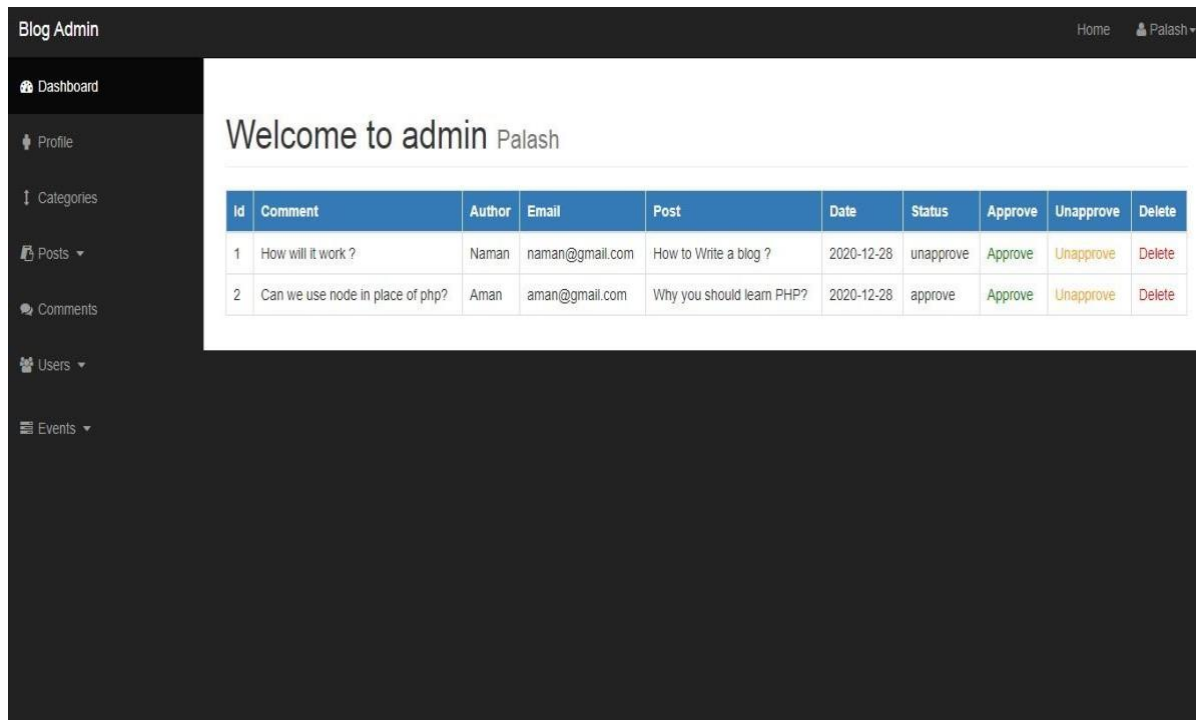


Fig 6.14

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

Chapter-7

Result and Conclusion

7.1 Result

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 are normalized and all constraints are properly considered in designing of the database.

7.2 Conclusion

We can confidently say that we were able to successfully implement the blogging system for MU. 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.

CHAPTER-8

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