Project Progress Report

Roll Number and Name of the student	
Title of the project	
Project guide name	

SN	From Date	To Date	Details of project work	Project guide sign (with date)

Head,
Department of Computer Science

Acknowledgment

Any attempt at any level cannot be satisfactorily complete without the proper support and guidance of expert people who share their knowledge and experience to improve our work.

During the development of this project, we were fortunate to get help, support, and encouragement from many people. We would like to acknowledge them for their cooperation.

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Introduction

Working in the Public Relations (PR) Industry and especially in Blogging isn't as easy as we think it is. Running PR Firms with multiple options available for Blogging website Management can be ambiguous. It is a herculean task to choose the most sophisticated, yet easy-to-use User Interface.

This online platform blogging project was built with the most sophisticated and long-term, web technologies enable PR business owners or their clients to manage their huge amount of content effectively in a short amount of time.

With this platform, you will not have to explicitly arrange the same type of content in a specific category, just mention the category while posting a blog from the most sophisticated.

The Content Management System, GraphCMS, and the back-end will automatically manage blogs in their respective categories. Additionally, GraphCMS provides more sophisticated features.

Problem Definition

The term blog refers to an informational website, web page or online journal that is updated regularly, with the content on the blog displayed in the order in which it was published, starting with the latest posts going back to the earliest.

Blogs can be used as effective business tools too.

Though blogging began as a sort of digital journal, allowing individuals to write about their lives and experiences. It soon also became a marketing tool for businesses to connect with their target audiences. Today, small businesses that blog get 126% more lead growth than those without a blog. That's because blogs are a great way to add value for your leads and customers through educational and engaging content.

The topics of blogs can vary from person to person or even business to business. The main purpose of blogs is to convey information in a way that is more informal or conversational than other long-form written content.

There are a couple of things that set a blog apart from a traditional website. The first is that blogs are updated consistently. Whether a brand updates their blog daily, weekly, or monthly, they will be putting new content up on the blog regularly for readers to engage with.

With a traditional site, you may still find yourself updating content from time to time. But, for the most part, the content remains the same for longer periods of time. The other main difference between a blog and a traditional website is that blog content encourages engagement. While a traditional website page provides information for the visitor and encourages them to take a specific action.

Existing System and need for new system

As we have described in the 'Problem Definition' section, for each learner, there is a need for a dedicated online Blogging platform to boost their overall performance to get maximum Information.

We should start this from the smaller user of the system, that is a student, who is a learner, but want to learn new things. It would be beneficial for that student

This system allows them to keep a track record of the all the posts, as well as keep the track record of comments. This feature can save the time of an admin.

This system provides a facility to classify the blogs under a specific 'Category'. Additionally, this system provides an Admin Dashboard, where he/she can track overall statistics of all blogs posted in a system.

Scope of the Proposed System

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

This is designed to assist in strategic planning and will help you ensure that your organization is equipped with the right level of information and details for your future goals. Also, for those busy executives who are always on the go, our systems come with remote access features, which will allow you to manage your workforce anytime, at all times. These systems will ultimately allow you to better manage resources.

- Our project aims at Business process automation, i.e. we have tried to computerize various processes of Online Blogging System.
- The system generates types of information that can be used for various purposes.
- It satisfies the user requirement
- Be easy to understand by the user and operator
- Be easy to operate
- Have a good user interface
- Be expandable

Feasibility Study

Preliminary investigation examines project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running systems. All systems are feasible if they have unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economic Feasibility

1. Technical Feasibility

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Does the proposed equipment have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

Earlier no system existed to cater to the needs of 'Secure Infrastructure Implementation System'. The current system developed is technically feasible. It is a web-based user interface for trade of housekeeping and disposable items products. Thus, it provides easy access to the users. The database's purpose is to create, establish and maintain a workflow among various entities in order to facilitate all concerned users in their various capacities or roles. Permission to the users would be granted based on the roles specified.

Therefore, it provides the technical guarantee of accuracy, reliability and security.

The software and hardware requirements for the development of this project are not many and are already available in-house at any business center or are available as free as open source. The work for the project is done with the current equipment and existing software technology.

Necessary bandwidth exists for providing fast feedback to the users irrespective of the number of users using the system.

2. Operational Feasibility

Proposed project is beneficial only if it can be turned into an information system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

This system is targeted to be in accordance with the above-mentioned issues. Beforehand, the management issues and user requirements have been taken into consideration. So, there is no question of resistance from the users that can undermine the possible application benefits.

The well-planned design would ensure the optimal utilization of the computer resources and would help in the improvement of performance status.

3. Economic Feasibility

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economic feasibility, the development cost

in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

The system is economically feasible. It does not require any additional hardware or paid software. Since the interface for this system is developed using the existing resources and technologies available at any business infrastructure, there is nominal expenditure and economic feasibility for certain.

Requirement Analysis

Requirement analysis produces in the specification of software operational characteristics:

It indicates software interface with other system elements. It establishes constraints that should be accomplished.

- Requirement analysis provides information, function & behavior that can be translated into architectural interface & component level design.
- This translation is performed during construction of an analysis model.
- It includes:
 - Decision and addition of all important functions which are maintained in the requirements.
 - Decision and addition of all important functions which are not maintained in the requirements, but it is essential to build.
 - o Definitions of all interfaces of the software to be developed

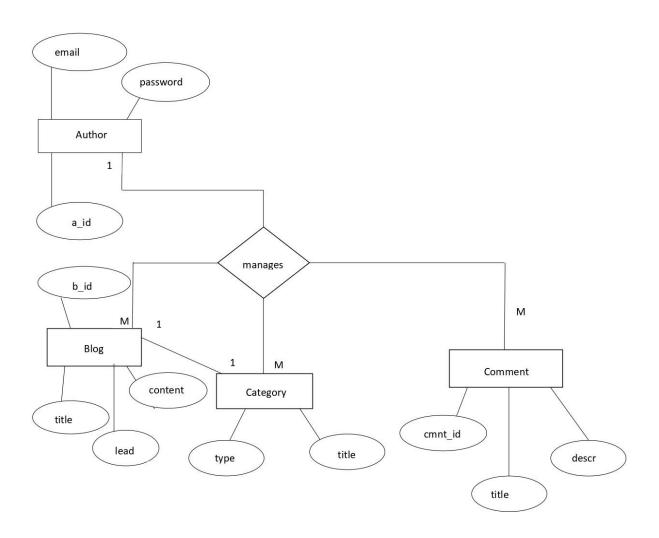
Software Requirements:

Operating System/s:	Windows/Linux
Browsers:	Mozilla Firefox, Google Chrome
Front-end:	ReactJS, TailWindCSS,HTML
Back-end:	GraphQL
Platform:	GraphCMS,NodeJS

o <u>Hardware Requirements:</u>

Processor:	Pentium III or any advanced processor
RAM:	256MB or more
Hard Disk Space:	40GB or more

1. ER DIAGRAM:



Data Dictionary

Collection Name: Author

Field Type	DataType	Description
a_id	int	Unique
createdAt	date	Timestamp
createdBy	string	Author name
updatedAt	date	Timestamp
updatedBy	string	Author name
name	string	Author name
bio	string	Blog description
post	string	Number of posts by the author

Collection Name: Category

Field Type	DataType	Description
c_id	int	Unique
createdAt	date	Timestamp
createdBy	string	Author name
updatedAt	date	Timestamp
updatedBy	string	Author name
slug	string	Unique key
post	string	Number of posts in that category

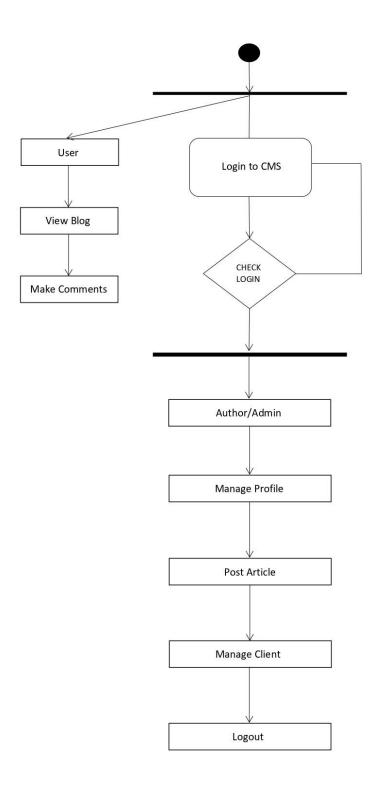
Collection Name: Comments

Field Type	DataType	Description
cmt_id	int	Unique
createdAt	date	Timestamp
createdBy	string	Author name
updatedAt	date	Dev token
updatedBy	string	Dev token
name	string	Name of the person who commented
email	string	email of the person who commented
comment	string	The comment given by the viewer
post	string	The post on which the comment is given

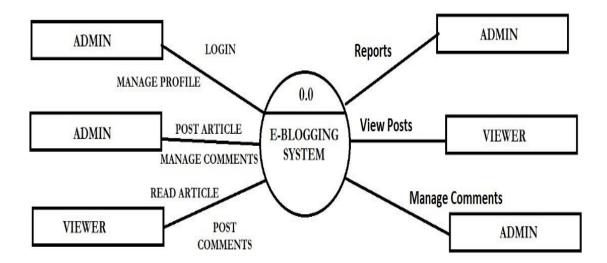
Collection Name: Posts

Field Type	DataType	Description
p_id	int	Unique
createdAt	date	Timestamp
createdBy	string	Author name
updatedAt	date	Timestamp
updatedBy	string	Dev token
title	string	The title of the post
slug	string	Unique key of the post
content	string	The content of the blog
Featured images	string	required
Featured Post	string	required
author	string	The author of the post
category	string	The category in which the post is displayed
comment	string	The comment id given by the viewer

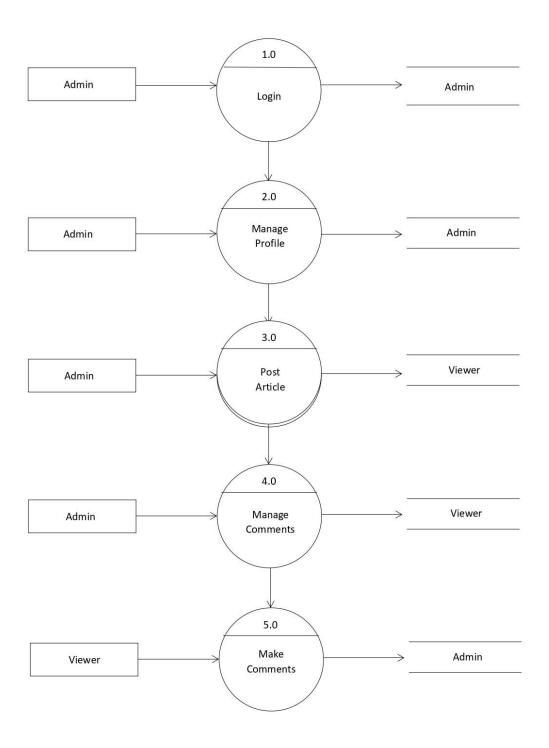
ACTIVITY DIAGRAM:



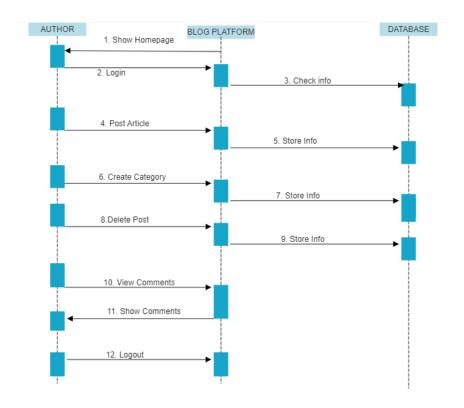
DFD LEVEL 0:



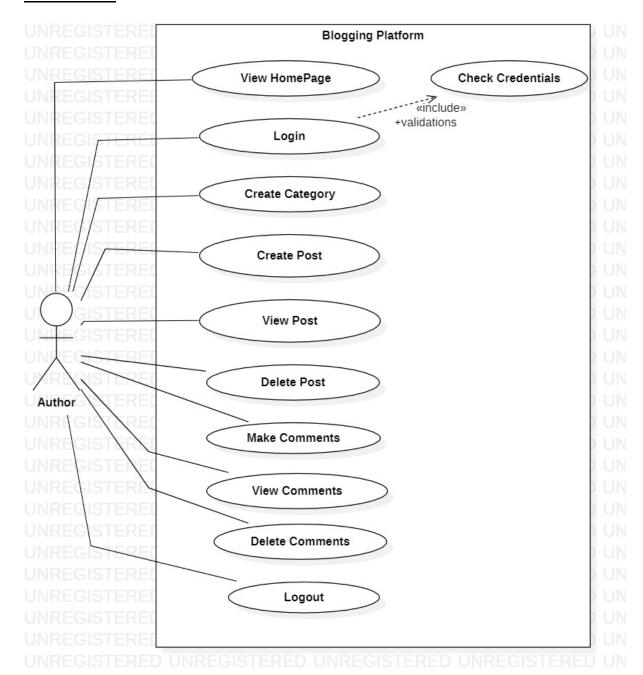
DFD Level 1:



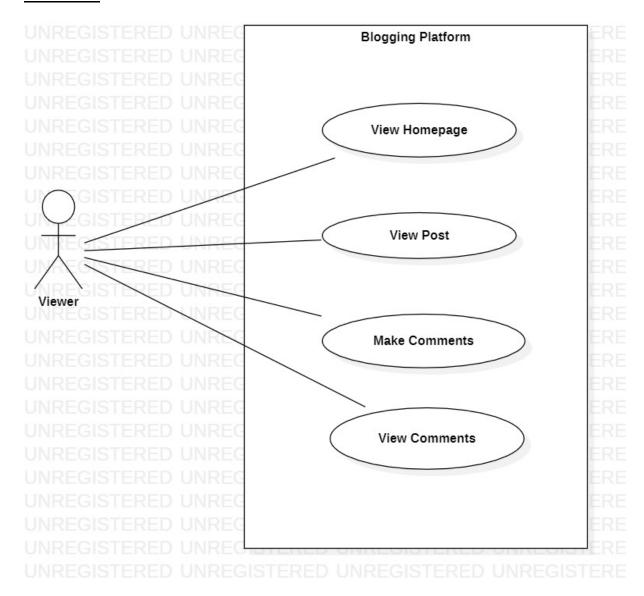
3. **SEQUENCE DIAGRAM:**



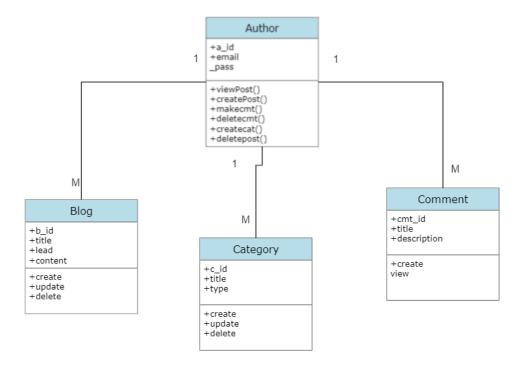
4.USE CASE 1:



USE CASE2:

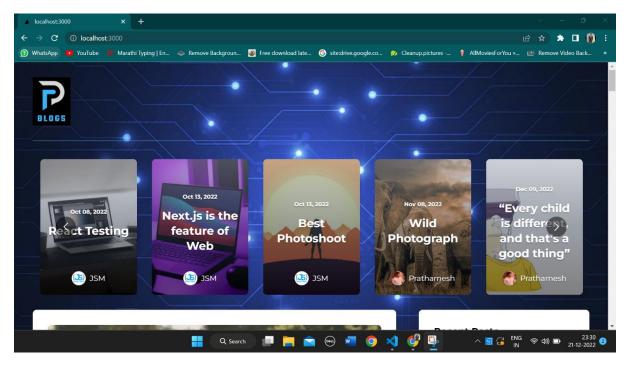


Class Diagram:

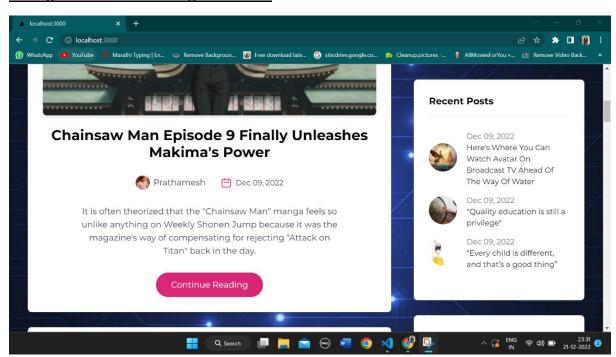


UI Snapshots

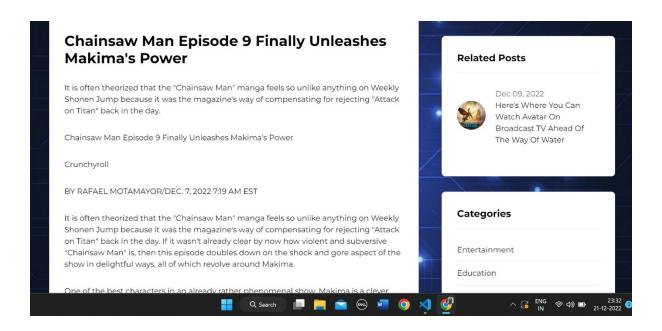
1. Home Page:



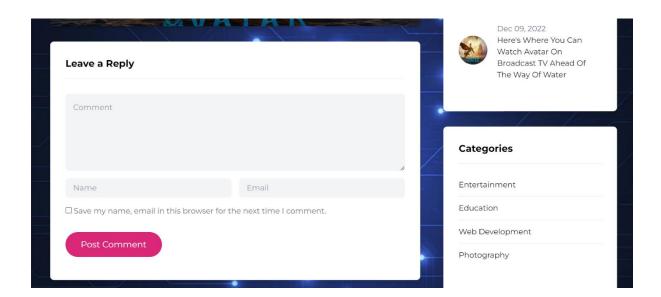
2. Blog Post From Home Page - In Brief:



3. Blog Post - In detail:



4. Related Posts and Comments' section:



Testing Methods Used

Testing is the process of evaluating a system or its component(s) with the intent to find whether it satisfies the specified requirements or not. Testing is executing a system in order to identify any gaps, errors, or missing requirements in contrary to the actual requirements. Using the test data, following test run are carried out:

- 1. Unit Test
- 2. System Test

Unit Test:

Unit testing is a level of software testing where individual units/components of software are tested. Thepurpose of this test is to validate that each unit of the software performs as designed. A unit is the smallest testable part of any software. It usually has one or a few inputs and usually a single output.

System Test:

System Testing is a level of software testing where complete and integrated software is tested. The purpose of this test is to evaluate the system's compliance with the specified requirements. Usually, <u>Black Box Testing</u> method is used. In System Testing, the functions of the systems are tested from anend-to-end perspective. System Testing is usually carried out by a team that is independent of the development team in order to measure the quality of the system unbiased.

Limitations

- The size of the database increases day-by-day, increasing the load on the database backup and data maintenance activity.
- Cyber-crimes are increasing day by day, so advanced data security is needed to implement.
- The financial investment is actually really minor, but there are two other major investments necessary: time and work.
- You will have to publish quality content for a long time (think 18+ months) before you will see major website traffic from Google.

Future Enhancements

- Search engine optimization (SEO) research is key. We start all of our content planning with deep research into keywords, related keywords, related queries, trending articles, etc.
- When we know what people are looking for and asking about, it becomes much easier to create a content plan that is sure to increase traffic.
- In order to achieve better results from this website, it is necessary to implement best SEO techniques.
- It is commonly observed that the people are accustomed to consuming content in the way they prefer, so we will let them to do so. Wi will provide a video and audio version of blog content so that people can also watch or listen.

Conclusion

- A blog website with better UI and UX is designed for better experience and to provide quality content to users.
- This kind of website can also help all kinds of businesses to grow themselves through content marketing and PR
- Using such websites, companies can easily go for digital marketing through SEO and Google AdSense tools.
- Security is maintained as the complete regional control of the system is maintained so that no malware can affect any one of the users' Mobile or Computers. This platform will help publisher to avoid misuse of their products and data corruption.
- Additionally, this platform will produce many job opportunities, as it will need huge manpower for creating content, designs, etc.

Bibliography

- Software Engineering
- HTML & Web Designing
- Fundamentals of web development by RANDY CONNOLLY AND RICARDO HOAR

ONLINE REFERENCES:

- https://www.w3schools.com
- https://developer.mozilla.org
- https://github.com