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Blog and Post: Create, Design and Publish Content using Content Management System

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Abstract: In this paper, it's all about Content Management System (CMS). CMS is used to organize, add, delete, and update information data on the web. CMS allows users (authors) to deliver new content in the form of articles as in Post and Blogs. Articles are usually a combination of plain text, images and videos etc perhaps with markup to indicate where other elements (such as Links and tags) should be placed without using a programming language. The main application of the CMS is to manage content throughout its life cycle, that is to say from its creation to its publication. The web publishing system helps establish a consistent look across your entire site, but gives non-technical content authors the power to publish and update their content using simple, yet simple browser tools.

Keywords: CMS - Content Management System , Write, Publish, React, PostgreSql. APIs- Application Programming Interface

I. INTRODUCTION

A content management system (cms) is an application which allows publishing, managing, editing, deleting and modifying content in a very effective and dynamic way. Content development has become a great way to share information on the internet. Even non-technical users have had the ability to post content easily and quickly to the world wide web. Everything is possible thanks to the ease of use of the content management tools. Available and Widely used by businesses, news agencies, educational institutions and other businesses. Content management system and cms can be defined as a tool or software containing a set of related programs used to create and manage various digital or online content.[1]

A. PROBLEM STATEMENT

These days, many people are having a lot of knowledge in their domain of work not having a medium to express their knowledge and experience not being tech savvy. Content management system provides a medium for such people to publicly share their knowledge with people through blogs. To resolve the responsibility for managing web content for the website on the people who create it, rather than on the webmaster. And for removing complexity of managing web content, to make work fast and accurate.

B. BITS AND PIECES

Some famous examples of CMS software areJoomla, Drupal, WordPress, Medium, TYPO3, etc.Based on the previously available CMS paper we have compared 7 different CMS and their features asshown below in

Table.1.Comparison of different CMS.[2]

1. Atleap, 2.Hoarder, 3.HonoCMS, 4.Hono-Generate,5.Magnolia, 6.Co-coBlog, 7.Roller Web logger.

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Features	1	2	3	4	5	6	7
AutomaticUI Generation	no	yes	no	no	yes	no	no
DynamicControl	yes	yes	no	yes	yes	no	yes
Automatic User Signup	no	no	no	no	No	no	no
Forgotten Password Notification	no	no	no	yes	No	no	no
Email confirmation	no	no	no	yes	No	no	no
Backup	yes	yes	no	yes	No	no	no
Navigator	no	no	yes	no	No	no	no
Admin Control	no	no	yes	no	No	no	no
Content management	yes	yes	yes	yes	yes	yes	yes
User Manager	no	no	yes	no	No	no	yes
Template	no	no	yes	no	No	no	Yes
Platform Independence	yes	no	yes	yes	yes	no	yes
Multiple Database repository	yes	no	yes	no	No	no	no
Code AutoGeneration	no	no	yes	no	No	no	no
MultipleUser	yes	no	yes	no	yes	no	yes
File Uploads	yes	no	yes	no	No	no	no
File Download	yes	no	yes	no	No	no	no
Document Managemen t	yes	no	no	no	No	no	no
Comments	no	no	no	no	No	no	yes
Web Content Managemen t	yes	no	no	no	No	no	No
Spring	yes	no	no	no	No	no	No
Hibernate	yes	no	no	no	No	no	No
Search	yes	no	no	no	No	no	No
Plagiarism	no	no	no	no	No	no	No
Contact us	yes	no	no	no	No	no	No
Forums	yes	no	no	no	No	no	No

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By comparing all the previous available CMS ,they contain some limitations and it can be clearly seen in the Comparison table that technologies like Hibernate, Spring and features like DAM, Anti plagiarism were absent in most CMS surveyed.

II TECHNOLOGY USED

- Frontend: React with TypeScript, semantic- ui (CSS)
- Backend: Node / Elixir
- Database: PostgreSQL.
- Unit Testing: Jest and React Testing LIbrary

III SYSTEM ARCHITECTURE

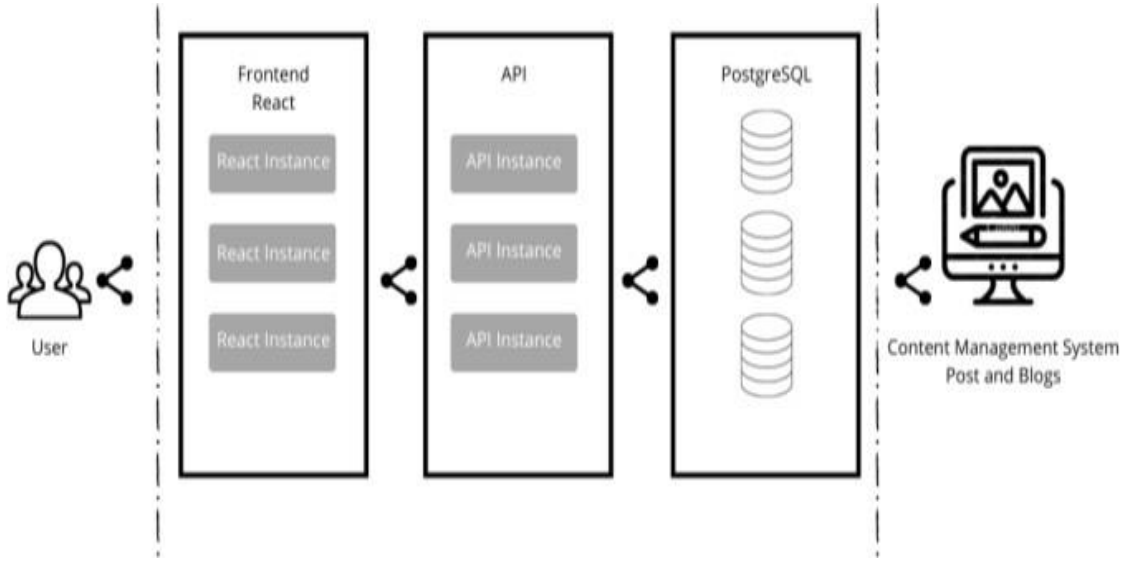

Fig.1. System Architecture

User:
By logging in, the user will be able to create, write,and publish all of the material on the CMS. Users must register by entering their Email-Id and Password.

React:
To offer you a quick overview, React is a Facebook-developed open-source JavaScript library used for frontend development. Its component-based library allows you to create high-quality web app userinterfaces. Its component-based library allows you to create high-quality web app user interfaces.

A. Simple

One of the most essential reasons to select React isthat it is simple to learn. You may immediately start building items using this technology because it takes little time to learn. If a technology is difficult to learn,it will be tough to get started with it. It just so happensto be human nature. Things that are difficult to learn are avoided.
React is easy to learn not just because there are a great number of easy-to-understand tutorials availableon the internet but mainly because it's a very simple library. Unlike Angular, it's not a complex tool. The learning process becomes easier when you have greatJavaScript skills.

B. Rich user-interfaces

React lets you build rich user-interfaces easily. Quality of user-interfaces is important because a poorly designed user-interface is generally less user- friendly and the users will not like a poorly designed UI.

C. Faster development

Using reusable components and development toolscan help you boost your efficiency. Developer productivity is critical because getting things done quickly allows you to generate more money in less time, which is a typical goal for businesses and startups.

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API:

Companies can open up their applications' data andfunctionality to external third-party developers, commercial partners, and internal departments through an application programming interface, or API. Through a specified interface, services and products can communicate with one another and benefit from each other's data and capability.

Developers don't need to understand how an APIworks; they only need to be able to communicate withother products and services using the interface. API usage has exploded in the last decade, to the point where many of today's most popular web applicationswould be impossible to create without them.[6]The following is how an API works:

1. To retrieve information, a client application makes an API call, often known as a request.This request, which contains a request verb, headers, and sometimes a request body, is sent from an application to the web server viathe API's Uniform Resource Identifier (URI).
2. The API makes a call to the externalprogramme or web server after receiving a valid request.
3. The server responds to the API with the data that was requested.
4. The data is transferred to the requesting application via the API.

While the data transport method varies based on the online service, the requests and responses are all handled throughan API.

PostgreSQL:

PostgreSQL, sometimes known as "Postgres" and pronounced "Poss-gres," is an open source relational database implementation that is frequently used as a backend for data storage and retrieval by Pythonapplications.[7]
The open source licence for PostgreSQL allows developers to use one or maybe more databases in their projects without incurring licensing fees. When relative to Oracle or other commercial databases, the open source licence operating model is substantially less expensive, especially when replication and sharding are required at a big scale. Furthermore, because PostgreSQL is used by so many people, fromfreelance developers to multinational corporations, it's generally easier to find developers with PostgreSQL skills than with other relational databases. There is also anecdotal evidence that PostgreSQL fixes issues faster than MySQL, howeverto be fair, no rigorous study comparing how the two projects manage defect resolution has been conducted.

IV. ADVANTAGES

CMS is open supply and is to be had for free.User can simply login and write their own Blogs and Publish them.Easy and brief importing of media documents may be done.It can adjust CSS documentsas in step with the layout wanted with the aid of usingthe user.

Many templates and plugins are to be had for free.

Customization of plugins is likewise viable.

Content modifying is likewise greater because it makes use of the TINYMCE editor.his allows us to modify the view and functionality of the site using stylesheets, images and templates.

V. LIMITATIONS

The CMS system wishes a time-to-time update, andsubsequently the consumer wishes to appear out for an up to date version. The use of various plugins couldmake your internet site heavy and hard to run. CMS web website hosting is pretty expansive. PHPunderstanding is needed to alter or extrade the WordPress internet site.

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