SRINIVAS UNIVERSITY INSTITUTE OF ENGINEERING AND TECHNOLOGY, MUKKA MANGALURU- 574146

AN INTERNSHIP REPORT

ON

" CONTENT MANAGEMENT SYSTEM"

Submitted in the partial fulfillment of the requirements for the award of the degree of

BACHELOR OF TECHNOLOGY

IN

COMPUTER SCIENCE AND ENGINEERING

Submitted By,

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UNDER THE GUIDANCE OF

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2023-2024

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

SRINIVAS UNIVERSITY, MUKKA

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Department of Computer Science and Engineering

CERTIFICATE

This is to certify that the internship report entitled ***" CONTENT MANAGEMENT SYSTEM"*** is a bonafide work carried out by **MOHAMMAD SHAHIL** bearing the **USN** ***1SU20CS036*** the partial fulfillment for the award of **Bachelor of Technology** in **Computer Science and Engineering** of the **Srinivas University Institute of Engineering and Technology, Mukka Mangalore** during the year **2023-2024.** It is certified that all corrections/suggestions indicated for internal assessment have been incorporated in the report deposited in the department library. The internship report has been approved as it satisfies the academic requirements in respect of Internship work prescribed for the said degree.

Signature of the Guide
Mrs. SWATHI R

Signature of the H.O.D
Dr. Krishna Prasad K

Signature of the Dean
Dr. Thomas Pinto
Dean, SUIET Mukka

External Viva

Name of the Examiners	Signature with date
1. _____	----------
2. _____	----------

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Department of Computer Science and Engineering

DECLARATION

I**, MOHAMMAD SHAHIL ,** the student of eighth semester, B.Tech in Computer Science and Engineering, Srinivas University, Mukka, hereby declare that the internship project entitled "**CONTENT MANAGEMENT SYSTEM**" has been successfully completed by me in partial fulfillment of the requirements for the award of degree in **Bachelor of Technology in Computer Science and Engineering of Srinivas University - Institute of Engineering and Technology** and no part of it has been submitted for the award of degree or diploma in any university or institution previously.

Date :

Place : MUKKA

(Signature of the Student)

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INTERNSHIP

CERTIFICATE

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INTERNSHIP IN

WEB DEVELOPMENT

FROM 17-Jul-2023 TO 17-Aug-2023

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MOHAMMAD SHAHIL

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ABSTRACT

Content Management Systems (CMS) have revolutionized the way articles are published on the internet, offering a centralized platform for creating, editing, organizing, and publishing content. This abstract explores the key components and functionalities of a CMS tailored for publishing articles. It examines features such as user-friendly interfaces for content creation and editing, version control to track changes, categorization and tagging for organizing articles, and publishing workflows for collaboration among authors, editors, and reviewers. Additionally, it discusses the importance of customizable templates and themes for ensuring a consistent visual identity across articles and the flexibility to adapt to different publishing needs. Furthermore, it highlights the role of content scheduling and distribution tools to optimize publishing strategies and reach the target audience effectively. Overall, a well-designed CMS for publishing articles streamlines the content creation process, enhances collaboration, and improves the overall user experience for both content creators and readers.

Content scheduling and distribution capabilities optimize engagement by enabling publishers to reach audiences at optimal times across various channels. In summary, a comprehensive CMS tailored for article publishing empowers publishers with the tools they need to create, manage, and distribute content effectively, fostering a seamless experience for both creators and consumers.

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Chapter 1

INTRODUCTION

1.1 Project Introduction

Content Management Systems (CMS) have emerged as indispensable tools for individuals and organizations seeking to streamline the process of creating, editing, organizing, and publishing articles on the internet. Tailored specifically for the needs of publishers, a CMS designed for article publishing encompasses a wide range of features and functionalities aimed at simplifying content creation, optimizing collaboration, and enhancing user experience. In today's digital age, the proliferation of online content has led to a growing demand for efficient systems to manage and publish articles effectively.

The fusion of HTML, CSS, JavaScript, PHP, and MySQL represents a potent combination for developing dynamic and interactive web projects. This introduction provides an overview of a comprehensive project that harnesses the power of these technologies to create a robust and scalable web application.

In this project, HTML serves as the foundation, defining the structure and content of web pages, while CSS enhances the presentation, styling elements to create visually appealing interfaces. JavaScript adds interactivity, enabling dynamic behavior and client-side processing to enhance user experience.

1.2 About Industrial training

The Industrial Training indicates to a program which aims to provide a best practical training within a particular time period. Industrial training refers to a program or period of practical work experience that is designed to provide students with hands-on exposure to real-world work environments. The primary goal of industrial training is to bridge the gap between theoretical knowledge gained in educational institutions and the practical skills required in a professional setting. It offers the student a great skill and practical knowledge and encourages their self-confidence. The main reason of engineering student needs to do Industrial Training is so they are well prepared for graduate job in their chosen field. It is a chance to put what you have learnt at university to work and the kind of real-life situation you will come up against when you start your career. Industrial training gives you great experience during your Bachelor of Engineering degree. By doing Industrial training you will have opportunity to evaluate the company for yourself to see if it is somewhere you might wish to work. It is where you get challenging projects.

1.3 About Organization

Vitvara, a Bangalore-based startup established in 2011, is committed to fostering innovation through a dedicated Research & Development Cell. Specializing in software and educational services, we've successfully delivered 1000+ engineering projects spanning web design, software, Android apps, IoT, AI, robotics, and more. Our newly established Mangalore branch expands our reach, providing comprehensive software and educational solutions, including online and in-store shopping for 1000+ high-quality products in electronics, electrical, and mechanical domains.

The Vision of the company is, it wants to be recognized Globally as a Leader in Technology Solutions and Innovation, and the Mission is, helping their Customers grow by transforming their business through Innovative and Scalable Solutions based on Modern Technologies.
The companies core values are, Ethical Business Practices, Delivery Excellence, Providing the Best-in-Class Value Proposition to our Clients , Employee Engagement .

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1.4 Problem Description

The project centers around the development of a Content Management System (CMS) to address the challenges faced by individuals or organizations in efficiently creating, managing, and publishing content on their websites.

Content Organization and Management as websites grow in size and complexity, organizing and managing content becomes increasingly challenging. Without a centralized system, content may become disorganized, making it difficult for users to navigate and find relevant information. A CMS should provide robust features for categorizing, tagging, and structuring content to improve searchability and usability.

By addressing these challenges and leveraging HTML, CSS, JavaScript, PHP, and MySQL, the project aims to deliver a robust and user-friendly CMS solution that empowers website owners to efficiently manage their content, collaborate effectively, maintain design consistency, and scale their websites to meet evolving needs. Through intuitive interfaces, streamlined workflows, and robust performance, the

CMS will enable users to focus on creating engaging content and delivering a seamless experience to their audience

1.5 Methodology

- Requirements Gathering: The first step involves gathering requirements through interviews, surveys, or workshops with stakeholders to understand their needs, goals, and pain points regarding content management. This phase defines the scope, features, and functionalities of the CMS.
- Design: Based on the gathered requirements, we proceed to design the architecture, user interface, and database schema of the platform.
- Front-end Development: In this phase, we focus on implementing the user interface using front-end technologies such as HTML, CSS, and JavaScript.
- Back-end Development: Concurrently, we develop the back-end infrastructure using technologies like PHP and MySql.
- Testing: Throughout the development process, rigorous testing is conducted to identify and address any bugs or issues.
- Maintenance and Iteration: After deployment, the platform requires ongoing maintenance to address any issues, implement updates, and scale according to user demand.

By following this methodology, we aim to deliver a robust, user-friendly, and scalable Full Stack Food Delivery Website that meets the needs of both customers and restaurant owners while adhering to best practices in software development.

Chapter 2

LITERATURE SURVEY

In [1] paper deliver the characteristic of Web CMS in education field, the following characteristics, resource sharing using service technology of RSS and Web, feature to maintain course content, feature to classified, and the contents which are browsed or managed by the different user can be classified arbitrarily, feature provided method of Http Handler Factor to process the teaching materials. Moreover, the main research conducted by Kurilovas (2009) is the analysis of learning content and software customization problems. Learning content is usually described by metadata and stored in Learning Object / Content Repositories (LORs) or Learning (Content) Management Systems (LMSs)

The paper [2] presents Xiang (2008) presented the description of CMS features in education, i.e. learning content creation, publishing, content management function (tools to support all management aspects of student records,e-learning course, and students' progress and learning objects across dispersed, multilingual environments), presentation (personalized pages to the users in multiple formats such as HTML (web), printed PDF, hand-held (WAP) and more), communication & collaboration function (provide internal email systems) and standard compliant (must conform to the leading industry standards, including AICC, SCORM, IMS, HTML and XML)

The paper [3] This research paper is on the problem companies faces with the existing traditional model of website management and the advantages or improvement that Content Management System brings to them.Web content management is the discipline of collecting, organizing, categorizing, and structuring information that is to be delivered on a website. The purpose of this study is twofold. First, it is aimed to observe how business users manages the contents directly without depending on technical personnel. Secondly, what are their perceptions of using the system? Many industry people have voluntarily participated in this qualitative study. The data was gathered through server statistics, personal interviews, and an open-ended questionnaire.

The paper [4] This research proposal is very important because, it covers the web aspect of a business, which deals with web-related content as well as representation of that content over the web. From a business perspective content is seen as asset to the business. It also discusses the difference between building a website using a CMS than to building a web application using the existing web technologies like J2ee,dot net, php etc. This research is designed to provide organizations with fact-based data points that reinforce the business case for deploying an ECM solution.

The paper [5] This paper contains a survey of content management system, content management process, architecture and working. Also contains different types of tools and software. Content Management (CM) is the process for collection, delivery, retrieval, governance and overall management of information in any format. The term is typically used in reference to administration of the digital content lifecycle, from creation to permanent storage or deletion. The content involved may be images, video, audio and multimedia as well as text. A Content Management System (CMS) is a computer application that supports the creation and modification of digital content.

Chapter 3

REQUIREMENT ANALYSIS

3.1 System Requirements

3.1.1 Hardware Requirements

- CPU : A modern multi-core processor (e.g., Intel Core i5 or AMD Ryzen 5) for running the software and handling computations.
- GPU (Graphics Processing Unit) : For complex image generation tasks, a GPU with 16 GB or more VRAM is often recommended . cloud services with GPU can be advantageous if you don't have access to a powerful GPU locally.
- RAM : At least 16 GB of RAM to ensure smooth operation, especially when working with large datasets and complex models.
- Storage : Ensure you have enough storage space to store the dataset, model weights, and any intermediate files. SSDs (Solid State Drives) are preferable for faster read and write speeds.
- Internet Connection : To downloading pre-trained models or datasets

3.1.2 Software Requirements

- Operating System: Compatible with Windows, macOS, or Linux distributions such as Ubuntu.
- Text Editor: A text editor such as Visual Studio Code, Sublime Text, or Atom for writing and editing code in HTML, CSS, JavaScript, and PHP.
- Web Browser: Latest versions of popular web browsers like Google Chrome, Mozilla Firefox, and Safari for testing and debugging the website's compatibility and functionality.
- XAMPP (Cross-Platform Apache, MySQL, PHP, and Perl) or WAMP (Windows, Apache, MySQL, PHP) for creating a local server environment to run PHP scripts and interact with databases like MySQL.
- MySQL or MariaDB: Relational database management system (RDBMS) for storing and managing website data.

3.2Non-functional requirements

- Performance:
  - The website should load quickly, with pages rendering within a few seconds to provide a smooth user experience.
  - Response times for actions such as searching for restaurants, browsing menus, and placing orders should be minimal.

- Scalability**:**
  - The system should be able to handle a large number of concurrent users and scale horizontally to accommodate increasing traffic.

    The architecture should support adding more servers or resources without significant downtime or disruption.
- Reliability:
  - The website should be highly available, with minimal downtime for maintenance or updates.
  - It should have mechanisms for fault tolerance and failover to ensure uninterrupted service in case of server failures.

- Security:
  - The system should protect user data and sensitive information such as personal details and payment credentials.
  - It should implement secure authentication mechanisms to prevent unauthorized access to user accounts.
- Usability:
  - The user interface should be intuitive and easy to navigate, catering to users of all levels of technical proficiency.
  - Accessibility features should be implemented to ensure that the website is usable by people with disabilities.

- Performance Efficiency:
    - The system should optimize resource usage to minimize server load and reduce hosting costs.
    - Caching mechanisms should be implemented to improve performance and reduce database queries for frequently accessed data.

3.3 Use Case Scenarios

Blogging Platform: A user creates a new blog post using the CMS interface.
They add text content, images, and perhaps embed multimedia elements like videos or audio clips.

E-commerce Website: An administrator adds new products to the website, including product descriptions, images, pricing, and inventory details. They can manage product categories and subcategories to keep the product catalog organized.

Corporate Website: The marketing team updates the company's homepage with the latest news, events, or announcements. They manage pages like "About Us," "Services," and "Contact" to ensure the information is accurate and up to date.

Educational Institution Website: Teachers or administrators upload course materials, syllabi, and assignments for students to access. Students interact with the CMS to submit assignments electronically and access course resources.

News Publishing Platform: Journalists and editors create news articles, including text, images, and videos, using the CMS backend.They categorize articles by topic or section (e.g., politics, sports, entertainment).The CMS automatically publishes articles according to a predefined schedule or pushes breaking news instantly.

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Chapter 4

WORK DONE

4.1 Tasks Performed

- **Requirements Gathering:** Collaborate with stakeholders to gather and analyze requirements for the food delivery website, including features, functionalities, and technical specifications.
- **System Design:** Design the architecture of the website, including front-end and back-end components, database schema, and system integrations.
- **Front-end Development:** Write HTML, CSS, and JavaScript code to implement the user interface of the website based on design specifications
- **Back-end Development:** Develop server-side logic using PHP to handle dynamic content generation, user authentication, and database interactions.
- **Database Management:** Design and create the database schema using MySQL or another relational database management system (RDBMS) to store website data such as user profiles, restaurant menus, and orders
- **Testing and Debugging:** Conduct unit tests, integration tests, and end-to-end tests to ensure the correctness and robustness of the website.
- **Deployment and Maintenance:** Deploy the website to a hosting environment (e.g., shared hosting, cloud platform) and configure server settings, domain settings, and security measures
- **Documentation:** Document codebase, APIs, database schema, and deployment procedures for future reference and collaboration among team members.

4.2 Development Environment

- **Text Editor**: A text editor is required to write the code for the application. Popular text editors for web development include Visual Studio Code, Sublime Text, and Atom.
- **Html**: HTML is used to create the user interface of web applications, including buttons, forms, and other interactive elements. It provides a way to define the layout and structure of web pages, including the placement and sizing of elements.
- **CSS**: CSS provides developers with a way to control the visual design of a website. By defining colors, typography, layout, and other visual elements, CSS can create a cohesive and visually appealing design that enhances the user experience.
- **Javascript**: JavaScript is used to create interactive user interfaces that allow users to interact with web pages. This includes features like dropdown menus, pop-up windows, and animations. JavaScript allows developers to create rich and engaging user experiences that keep users engaged with the web application.
- **MySQL**: MySQL provides a way to store and organize data for web applications. MySQL is scalable and can handle large amounts of data, making it suitable for web applications with a high volume of users and transactions.
- **XAMPP**: XAMPP provides a local development environment for web applications. This means that developers can develop and test their web applications on their personal computer without the need for an internet connection or a live web server. XAMPP includes PHP, which is a popular programming language used for web development. Developers can write and test PHP code in XAMPP before deploying it to a live web server
- **IDE**: An Integrated Development Environment (IDE) such as WebStorm, Visual Studio Code, or Atom can be used to streamline the development process by providing features such as auto-completion, debugging, and code analysis.

Chapter 5

IMPLEMENTATION

Step 1: Set up the development environment.

Install Xampp on your local machine.

Choose a text editor or IDE for development (e.g. VS Code).

Step 2: Create a new project folder.

Create a new folder for your project.

Step 3: Decide a name and logo for the website.

Step 4: Create a template for front end and admin panel using fundamental web technologies such as html, css, and javascript.

Step 5: Run the Xampp Server to access the localhost.

Step 6: Create a database on phpMyAdmin for users account, login, sign up etc.

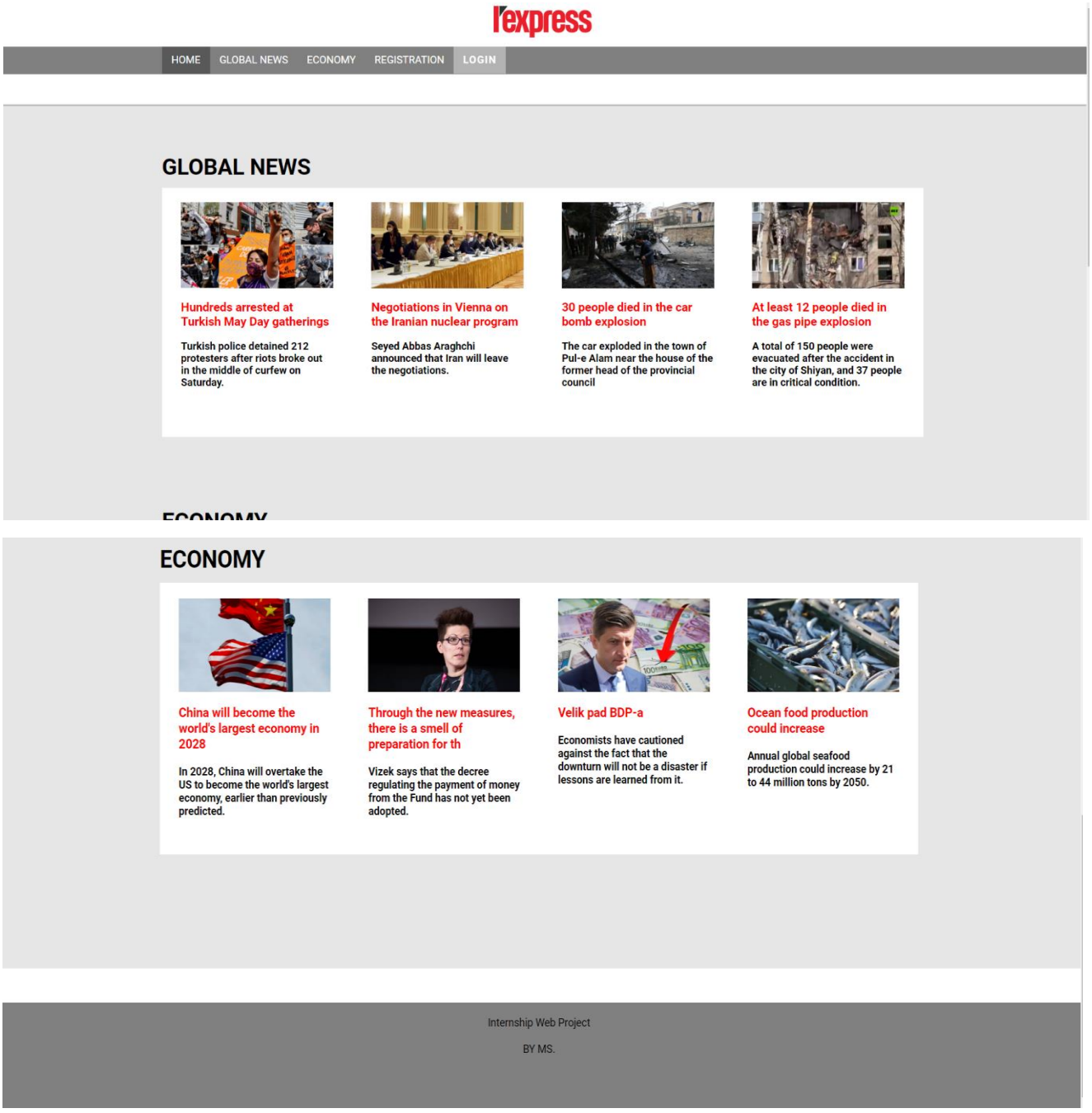
Step 7: Connect the database to display the contents on front end.

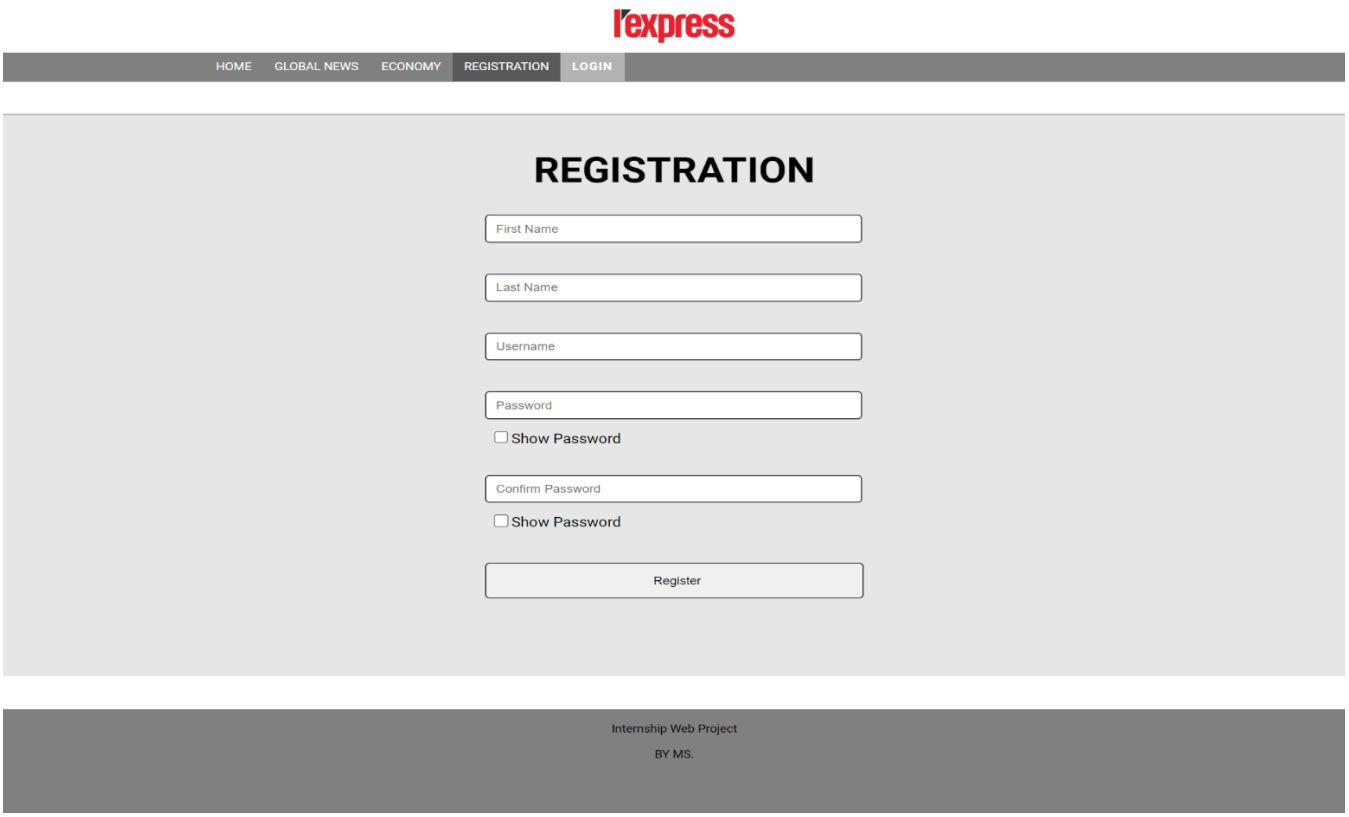
Step 8: Run the website on your favorite website.

The application should now be accessible in your web browser at http://localhost:80/.

Chapter 6

RESULTS

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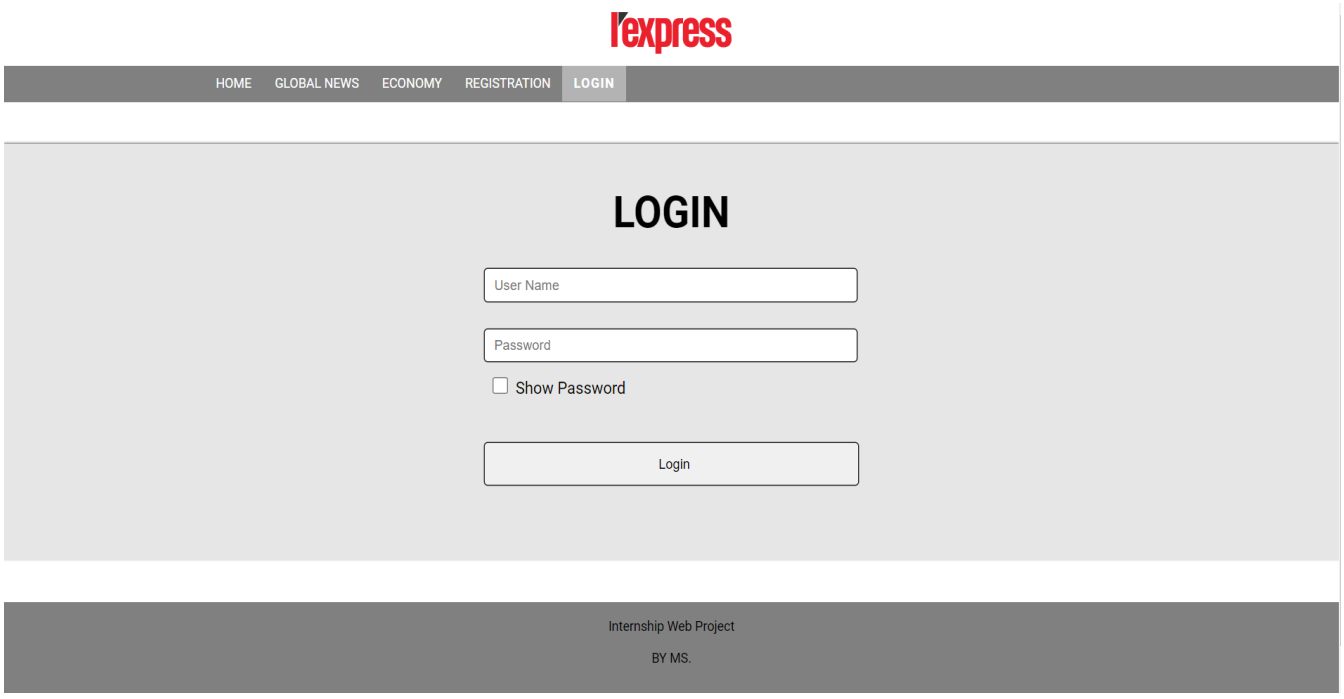
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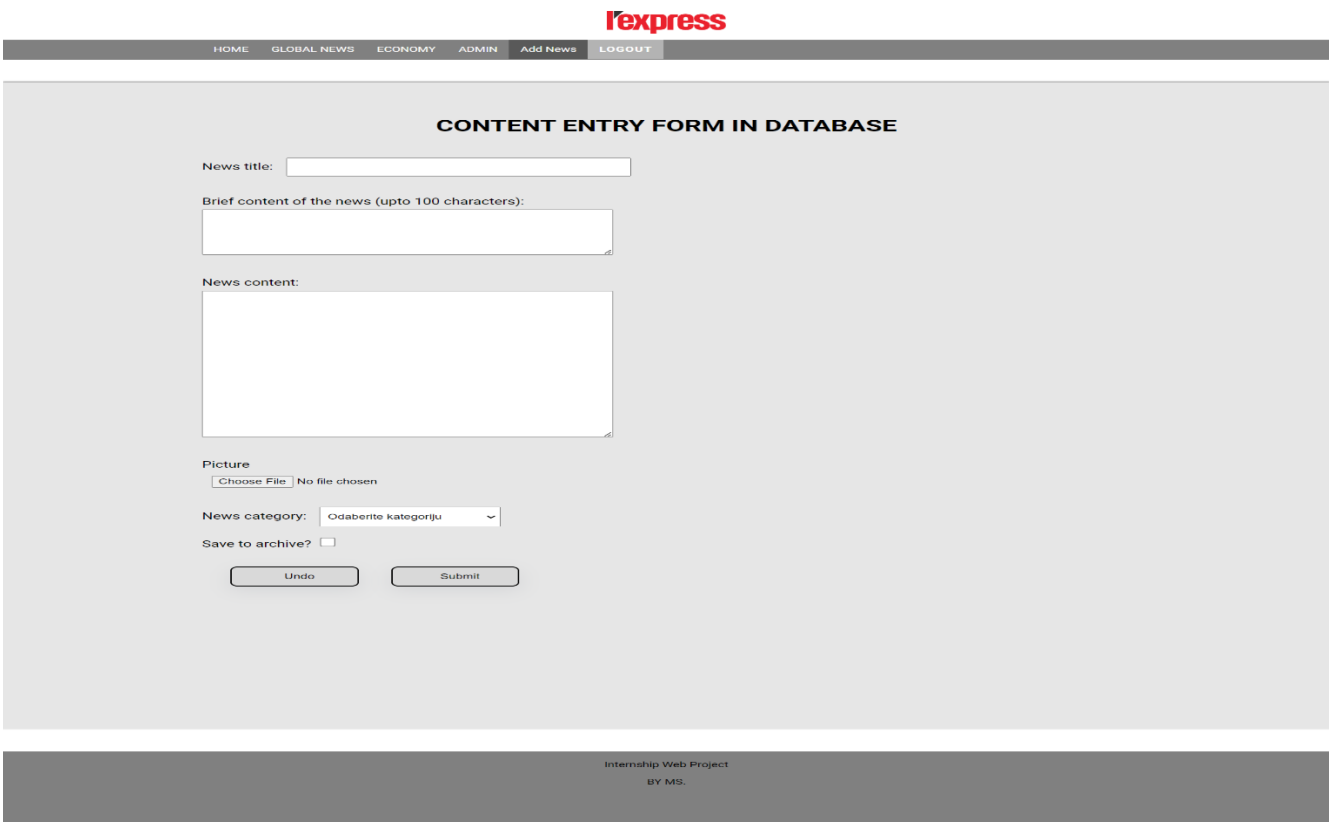
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News Title:
A strong earthquake hit northeastern
Brief content of the news (up to 50 character):
EMSC reports that around 4 a.m. Croatian time, Japan was hit by a strong earthquake.
News content:
So far, there is no information about material damage or injuries, and the videos show that some buildings swayed quite a bit. Authorities have announced that there is a risk of landslides, but no tsunami warning has been issued, Reuters reports.

It struck in northeastern Japan, off the coast of northeastern Miyagi prefecture, at a depth of 60
ers, and the earthquake had a magnitude of
localhost/cmss/kategorija.php?kategorija=ECONOMY

Chapter 7

CONCLUSION AND FUTURE WORK

In conclusion, the development of the Content Management System (CMS) has successfully addressed the challenges faced by individuals and organizations in efficiently managing and publishing content on their websites. By leveraging HTML, CSS, JavaScript, PHP, and MySQL, we have created a robust and user-friendly platform that empowers users to create, edit, organize, and publish content with ease.

The CMS provides intuitive interfaces for content creation and editing, robust features for organizing and managing content, streamlined workflows for collaboration, and customizable templates for maintaining design consistency. Through rigorous testing and optimization, we have ensured the performance, reliability, and security of the system, providing users with a seamless and dependable content management experience.

Future Work:

Looking ahead, the evolution of CMS websites is likely to focus on several key areas:

Enhanced User Experience: Continuously improving the user interface and user experience (UI/UX) of CMS platforms to make content management even more intuitive and streamlined.

Personalization: Implementing more advanced personalization features to deliver tailored content experiences based on user preferences, behavior, and demographics.

Integration and Interoperability: Strengthening integration capabilities to seamlessly connect with other systems and services, such as customer relationship management (CRM) software, marketing automation tools, and analytics platforms. Performance and Scalability: Optimizing CMS performance and scalability to handle growing content volumes, increasing traffic, and evolving technology demands.

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