

# DESIGN OF AUTOMATED BLOG MANAGEMENT SYSTEM

*This article presents the design of an Automated Blog Management System, encompassing key functionalities such as user management, article editing, comments and interactions, and push notifications. The system aims to provide a simple and efficient blogging experience while fostering an active blogging community.*

## INTRODUCTION

The Blogging platform for automating data processing is intended for individuals who wish to share their viewpoints and experiences online. While there are already many tools available to help non-programmers quickly set up personal blogs, the Blogging platform for automating data processing simplifies and streamlines the management and publishing processes of blog content. Additionally, it assists bloggers in building a vibrant blogging community. The system offers user-friendly blog building tools and allows users to easily manage their content. Users can write and edit articles, schedule publication times, and manage comments and interactions with ease. The goal is to enable bloggers to focus on creating content rather than tedious management tasks. In addition, the system introduces the concept of a blogging community. Bloggers can engage in mutual exchange, share experiences, and even collaborate on content creation. By aggregating content on different topics, we provide users with a broader perspective and richer resources.

## I. AIMS AND OBJECTIVES

The User-Centric Blogging Platform aims to revolutionize the blogging experience by prioritizing user needs and enhancing social interaction. Below are the key objectives guiding the platform's development: The objectives the system, "Blogging platform for automating data processing" are to enhance the user experience and streamline the blogging process: User Management: Registration, login, and personal profile management functions allow users to easily create and manage their blog accounts. Article Editing: Providing rich formatting and styling options helps users to effortlessly create, edit, delete, and organize articles, thereby producing high-quality content. Article Management: Supporting article categorization and tagging functions assists users in better organizing and managing their blogs, and facilitates the retrieval of other blogs within the community. Comments and Interactions: Providing commenting and interaction functions enhances the social and interactive aspects of the blog. User Subscription and Push Notifications: Allowing users to subscribe to content of interest and providing push notification functionality enables users to stay updated with the latest blog posts in a timely manner. Search and

Recommendations: Implementing search and recommendation functionality helps users quickly find content of interest and recommends related content, thereby enhancing user experience and increasing exposure to blog content. Multi-platform Support: Supporting users across different devices and platforms expands the user base, covers more usage scenarios, and provides users with a more convenient blogging experience. Statistics and Analysis: Providing comprehensive statistics and analysis functions helps bloggers understand the performance of their blogs, including visitor traffic, user behavior, traffic sources, etc., providing users with data support for further optimization and improvement.

## II. TECHNOLOGIES OVERVIEW

This project aims to develop a blogging platform for automating data processing, utilizing a frontend-backend separation pattern. The technologies used in this project include:

Frontend Technologies: - HTML: Used for constructing the structure and content of web pages. - CSS: Utilized for styling web pages. - JavaScript: Employed for web interaction and dynamic effects. - jQuery: A JavaScript framework for simplifying tasks such as DOM manipulation and event handling. - Echarts: Utilized for data visualization to display data analysis results. - Vue: A progressive framework for building user interfaces, enhancing frontend development efficiency. - ElementUI: A Vue-based component library offering a rich set of UI components for rapid UI development.

Backend Technologies: - Java: The primary programming language for backend development. - Spring Boot: A rapid development framework based on the Spring framework, simplifying the initialization configuration and development process of Spring applications. - Spring Cloud: Provides a suite of tools for developing distributed systems. - MyBatis Plus: Streamlines development in the data access layer. - Spring Security: A framework for authentication and authorization, ensuring application security. - Swagger2: Used for generating RESTful API documentation, simplifying API management and testing. - Redis: Utilized for caching and message queuing, enhancing system performance and scalability.

Database: - MySQL: Used for data storage and management.

### III. CONCLUSION

The Blogging platform for automating data processing aims to revolutionize the blogging experience by providing users with a user-centric, efficient, and socially valuable platform. By simplifying and streamlining the management and publishing processes, bloggers can focus more on creating high-quality content. The platform introduces the concept of a blogging community, enabling bloggers to engage in mutual exchange, share experiences, and collaborate on content creation. With user-friendly tools and features such as article editing, categorization, and commenting,

the platform enhances social interaction and user engagement. Additionally, functionalities like user subscription, push notifications, search, and recommendations contribute to an enriched user experience. The platform utilizes a frontend-backend separation pattern and leverages various technologies such as HTML, CSS, JavaScript, Java, Spring Boot, and MySQL to deliver a robust and scalable solution. Overall, the Blogging platform for automating data processing empowers bloggers, fosters community engagement, and provides a seamless and rewarding blogging experience.

*Zhang Rongliang*, undergraduate's student in the Faculty of information technology and control 020611, ZhangRL456@outlook.com

*Xu Weixuan*, undergraduate's student in the Faculty of information technology and control 020611, 2825892366@QQ.com

*Scientific supervisor: Khajynova N.U.*, Senior lecturer, BSUIR, khajynova@bsuir.by