

Project Proposal

—Group 18

Title

Campus Blog Website Development

Problem

The campus community currently lacks an integrated, easily accessible platform for sharing academic insights, campus news, personal stories, and educational resources. Students and faculty often rely on fragmented social media groups and forums, which are not only difficult to manage but also lack the necessary features to support efficient information exchange and knowledge sharing. Moreover, existing platforms often lack proper content regulation, leading to concerns about the authenticity and security of information.

Solution

The solution we propose is to develop a campus blog website based on the Python Django framework. This website will provide a user-friendly interface that allows campus members to easily post and read blog articles, while also providing robust backend support to ensure the security and reliability of content.

Objectives

- 1) Develop and deploy a campus blog website by [Specific Date], ensuring all core functionalities are operational and user-friendly.
- 2) Implement a secure, reliable, and easy-to-use content publishing platform to facilitate communication and knowledge sharing within the campus community.
- 3) Continuously improve the website's features and performance based on user feedback and ongoing technical support.
- 4) Achieve a minimum of [Specific Number] active users within six months after the project completion and maintain a user satisfaction rate of at least [Specific Percentage].

Benefits

The campus blog website will boost academic exchange, fostering a community where research and insights are shared. It will also strengthen campus culture by highlighting news and personal stories, while ensuring content security through user authentication and moderation. This platform will support educational innovation, offering teachers a tool to enrich teaching and learning, and will increase student engagement by encouraging participation in discussions, thus improving critical thinking and writing skills.

Technical architecture

Basic Preparation and Environment Setup

The project needs to be built under the Django framework, with MySQL database configured as the backend for data storage. Basic routing and URL configuration will be completed at this stage to ensure that page transitions and the basic structure of functions are implemented. In addition, the preliminary configuration of the template system is also carried out at this stage to lay the foundation for subsequent page development.

Database Design and Use of ORM

This stage involves the construction of the database and the design of models. Through Django's ORM system, we can achieve the mapping between models and the database, ensuring the storage and retrieval of data. It mainly involves the modeling and management of core data such as blog articles, user information, and comments, while supporting CRUD (Create, Read, Update, Delete) operations, simplifying the development process.

User Authentication and Authorization System

To ensure a personalized user experience and data security, we will implement user registration, login, and session management in the project. By using Django's built-in authentication system, combined with security measures such as cookies and CSRF protection, we ensure user identity verification and information security.

Front-end Development and Responsive Layout.

Using the Bootstrap framework, the front-end pages of the blog will implement responsive design to ensure a good browsing experience on different devices. This includes the layout design of the blog pages, the implementation of the navigation bar, and the optimization of forms. Through Django's template system, the front-end pages will dynamically integrate with the backend data to achieve real-time content updates and display.

Timeline

Phase	Description	End date
Phase 1	Project Preparation and Basic Architecture Construction	8 October 2024
Phase 2	User Management and Security Implementation	29 October 2024
Phase 3	Blog Feature Development	12 November 2024
Phase 4	Backend Management and Testing Deployment	3 December 2024

Action plan

Objective 1: Project Preparation and Basic Architecture Construction

Action	Assigned to	Deadline	Progress
Environment Setup and Database Configuration	Yunqi Chen	8 October 2024	In-progress or completed
Routing and Template System Configuration	Chenchen Ming		In-progress or completed

Objective 2: User Management and Security Implementation

Action	Assigned to	Deadline	Progress
User Authentication and Registration Feature Development	Siyan Wu	29 October 2024	In-progress or completed
Captcha and Email Sending Feature Development.	Chenghua Zhu		In-progress or completed

Objective 3: Blog Feature Development

Action	Assigned to	Deadline	Progress
Blog Post Publication and Detail Page Layout.	Lintao Ouyang	12 November 2024	In-progress or completed
Implementing Comments and Search Functionality.	Jiarui Feng		In-progress or completed

Objective 4: Backend Management and Testing Deployment

Action	Assigned to	Deadline	Progress
Admin System Configuration and Data Management.	Xueyi Wang	3 December 2024	In-progress or completed
System Testing and Launch Deployment.	Chenxi Zhao		In-progress or completed