Research and Practice of Personal Blog Management System Based on Django

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ABSTRACT

With the maturing of network technique,people are relying more and more on network in life. Making friends,life record, material facts and story sharing can be carried out between people.The Personal blog management system Uses the Python Django framework and selects B/S mode to build.This paper mainly discusses the whole development process of blog system, such as system requirement analysis, functional design, software implementation, software testing and so on. As thus, the daily social networking and event function can be satisfied between users and readers.

Keywords: Personal Blog Management System, Python, Django, Network.

1. INTRODUCTION

With the rapid development of Internet, people's demand for blog is more and more diversified, which promotes the development of personal blog.A blog is a personal "reader's digest" for the network age, it usually is made up of individual pages for users to write and publish articles.For these articles, the blog can classify and manage them according to their tags, time and other information, then provide them for readers to read[1].At present, blog mainly presents the following three trends in development:

Trend 1,blog has become the representative carrier of users, which is gradually endowed with a number of connotations and become the user's credit symbol.Use of blogs enables network users to locate themselves and communicate with each other.At the same time, it provides privacy to ensure that users' real-world information is not disclosed.Furthermore, by publishing and sharing blogs, users can form a symbol representing their personal reputation. In turn, this symbol can be used as the evaluation standard of users' blogs, thereby promoting the gradual commercialization of blogs.

Trend 2,blogs are becoming more diverse.The original blog content is mainly the editing and publishing of articles.But with the continuous improvement of technology and the growth of people's demand, the illustrated article gradually became the main content of most blogs.In addition, with the

development of "we media" and the popularity of some small videos, many blog websites have launched the functions of video or live streaming.

Trend 3,blogs are moving towards push mechanisms.Blog is a carrier for users to publish articles to express their opinions and experiences. With the growth of users, the amount of information data is also quite massive. There must be some junk information in the massive data, which is not suitable for pushing and even does not comply with relevant laws and regulations[2].Therefore, the blog changes the traditional way of publishing, and uses the push mechanism to push some hot topics or topics of generally concern,which is convenient for people to communicate and exchange. For junk information, it is shielded.

According to data statistics, the number of blog websites in China is about several million, while the number of blogs has increased to more than one million. In addition, the number is growing at a rapid rate of 40 percent a year.Therefore, the development of related industries and economies driven by blogs has attracted great interest from related experts and entrepreneurs.In foreign countries, blog has been a popular way of social communication for a long time. In China,blog mainly exists in a mode of technical communication, which is the shortcomings of domestic blogging technology.Therefore, the development of personal blog system can be arranged according to their own

preferences. The system has higher freedom for interaction with readers and search for like-minded friends. The implementation of online social new pattern must be a trend of future development[3].

2. SYSTEM REQUIREMENT ANALYSIS

According to the functional requirements of blog system, the system is divided into reader mode and user administrator mode.Reader mode mainly includes reading of articles, message interaction and so on. The main functions of the user administrator mode include writing, modifying,deleting articles and viewing readers' messages.A series of modification operations were carried out on the rotation pictures displayed on the article page, the classification labels of the blog article and the Settings of personal information.The overall system needs a stable operating environment and secure database.

2.1.Analysis of Functional Requirements

In social networking mode, young people are keen on life sharing, cultural transmission and pursuit of new things. Under the premise of security and stability, the system design should satisfy the following requirements.

(1)There is a secure and stable database to store system data.Users will save some of relatively important article notes or some other content during use of personal blog system, including user personal information and other private content.Therefore, it is very important to establish a safe and stable management mode, which is the basis of improving user experience and research of overall system.

(2)Readers can interact with users while browsing the article, which is the characteristic function of the system.Readers can choose their favorite user managers to leave a message in order to achieve a communication purpose.

(3)From the point of user manager, users have absolute control over the system. The tags can be set according to keywords such as life, science and technology, cute pets,etc. The content of the tags can also be modified and "add, delete, change, check" can be carried out according to the intention. Users can also add, modify or remove the content of the article just written,view readers' messages and other functions.In order to facilitate social communication, this personal blog system is also associated with Scott map. It increases the social authenticity, transparency and security.Although the main audience of this system is young people, but considering many older readers in society also like online social networking even if computer skills is weak.

Therefore, another advantage of personal blog management system is simple operation interface.

Because some sensitive user information is protected and there are certain requirements for reader information, the database is stable and secure.The personal blog system can completely meet the basic needs of different ages.If there are other higher requirements in the process of using the program, it can also perform later maintenance and secondary development.This system also has the function of log recording. If the maloperation is happened in use or is operated by others, users can check what the other side operates through the logging and which changes were made to the personal blog system.

2.2.Analysis of Business Process

First, users need to make a simple registration to use the blog. If the user wants to edit, modify, delete and classified articles, the user needs to enter the manager interface, then can do the above.

Second, readers can read the user's articles and essays through browsing interface,but also can discuss the content of the article, leave messages and interact with bloggers. Without the manager's account and password, readers cannot enter the management interface. They can only read and leave messages without too many operation permissions. The purpose is to protect user information security and maintain the stability of the system.

3. SYSTEM FUNCTION DESIGN

3.1.Functional Structure Design

Through analyzing the function demands of the system, system user can be divided into reader mode and user manager mode. The functions of reader mode mainly include article reading, message interaction, etc. The functions of user manager mode include writing, modifying and deleting articles and checking the readers' messages.they can modify a series of pictures displayed on the article page, the classification label of the blog post and personal information setting.The overall system needs a stable operating environment and a safe database.

3.2.Functional Module Design

The system includes mainly front-placed part and backstage part. The backstage part serves bloggers and the front-placed part is based on readers.The specific analysis is as follows.

3.2.1.Background Management functions

System of entry: the account and password need to be verified when entering the background.

Log management: bloggers have the right to publish, modify and delete log contents.

Label management: users can add or modify the label type.

Cover management: users can upload, view and delete pictures on the article covers.

Message management: users can view and manage messages from readers in the manager interface and interact with those they are interested in. The method of communication can be selected through the reserved contact information of readers.

3.2.2.Function of The Front Desk

When the blogger publishes blog article or informal essay, the system will classify it automatically. Therefore, when reading relevant blog posts, readers can search for their favorite articles through the classification function.At the same time,for different views and opinions of blog posts,readers can interact and leave a message in the comment threads below.

4. SYSTEM IMPLEMENTATION

4.1.Foreground Implementation

4.1.1.Reader's Login

The development of this system is to show thoughts better, learning exchanges, sharing experience and other social activities. In order to achieve the purpose of rapid promotion, readers need not enter the account number and password when browsing user's blog. If you enter the correct address in the address field, you can read blogs.

4.1.2. Reading of Blog Posts

Although readers log into the personal blog system as a visitor,it doesn't affect communication with users at all. Readers can click on the title of any post or essay for detailed reading, or search the title of their favorite article in the retrieval interfaces for fast search.

4.1.3.Reader Comments

After reading a blog post, readers can leave a message on this page and interact with user managers. In order to manage messages for convenience, you can also leave a message on the "Contact me" interface[4].Users can set a limit rules on the comment threads for register their personal information before leaving a message. This is in order to ensure system security and prevent malicious comments.

4.2.Background Implementation

4.2.1.The Users Login

Background management interface to enter the need to authenticate the identity of the user, makes sure to enter the background management interface is the user himself, avoid others into the backend interface, modify personal blog system information and cause unnecessary loss, so set up a user name and password, after verification by can be set into the background management interface.

4.2.2.Displaying User Information

Personal blog system will show the user's personal information to the reader, including name, major, email, address and so on.The system can carry on a positioning show to the address through the Amap platform. This operation should be similar to "people nearby" function, it allows readers to realize approximate location of blog writers.So,these social activities of personal blog management systems are much more transparent.However, for security reasons, the system binds the address with the location of the school.Thus the system can not only protect users but also reveal certain location information to the outside, thereby forming a social model similar to the alumni circle[5].Through the personal blog system, it can provide much convenience for those who set up some literature corporations in the school.

4.2.3.Writing Blog Posts

After successfully logging in to the background management page, the user manager can freely choose to write blog posts or essays. Users can also select different columns, then enter the interface and edit the corresponding content. After the above operations and the editing of the content of the blog, users can click on the publish button to send it to your personal blog. At the same time, the system also provides classification function and picture preview function.In the published page, the blog can be classified according to the content, the user has the right to add new category labels and can also change the label name[6].

4.2.4.View Message

After the reader leaves a message, the user can see the message or comment through the message viewing module and reply or ignore them.Under the premise of ensuring security,by the comparison of personal information,the efficiency and quality of social communication are improved between users and readers. It really happened the social networking of personal blog.

5. TESTS OF SYSTEM OPERATION

Through the above test of reader mode and user manager mode, people have some understanding of the effect of program execution. During the test, no error prompts such as lag and refresh failure appeared in the personal blog system.All of this proves that the system has a certain stability.

As a user manager, after entering the correct account and password,so you can access the personal blog management system. Only the user manager can modify the system information. If the account and password are accidentally leaked, the user manager can change the account and password in time through the background management interface to stop loss[7]. If the personal blog system may be under attack from others' malicious modification, a log is automatically generated in log management after the modification takes effect.It will record all the changes and modification time. Under normal circumstances, only the user manager has the full operation authority of the personal blog system. All others have read-only function of the blog system and no other permissions.

In conclusion, test results are basically reached the expected effect,the system works well.

6. CONCLUSION

The design of this system uses Django MVT framework, the development platform chooses PyCharm editor for Python, the database uses MySQL. Through the feasibility analysis, demand analysis, business analysis and function analysis, finally, the system set the program users as the client and reader end.both of them have their own rights and functions, and achieve the real meaning of "my blog I make the decision". In the current convenient network and epidemic environment, people can better exchange learning and share life.

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