

Coursework Report

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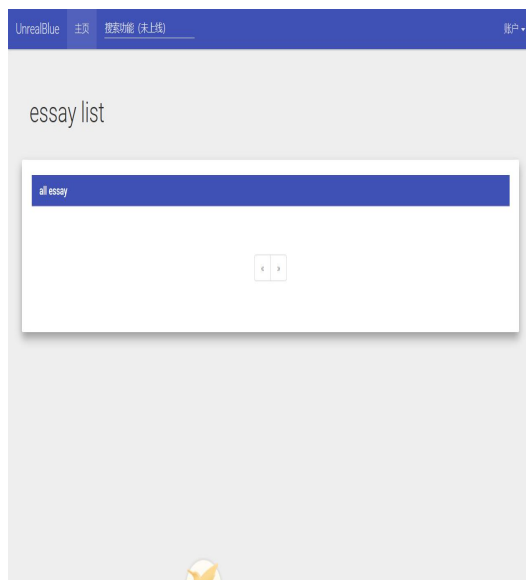
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Edinburgh Napier University - Module Title(SET09013)

Introduction

The title of my web_app is It basically has basic blog functions, such as login, registration, modifying personal information, deleting or adding articles or comments and increasing followers. When the user registers, app will send a confirmation email to the user to confirm the user. Users on this blog are divided into four categories: administrators, assistants, ordinary users, and tourists, with corresponding permissions set for them. Blog pages are rendered using bootstrap templates and flask form.

Web app main page



Design

There are two blueprints in this app, namely user authentication blueprint (auth) and blog blueprint (main). Set up mail and database configuration in config.py. Use management.py as the starter of the program. Store the blueprint configuration and the Flask application instance in app/u init_.py. The framework of the database can be consulted in model. py, and Flask SQLAlchemy is used to manage the database. In addition, the app also uses REST web service provided by flask (app/app_1_0),

Next, I will introduce my first blog, focusing on various functions.

The function for users

1. user password security

In this module, I use the security (using Cryptographic hash function) module of Werkzeug to encrypt the user's password. When the database is attacked, it can effectively protect the password security of users.

2using flask_login

Flask_login is a very useful package for flask to manage authentication status in user authentication system. It also provides a way to protect the user's session from tampering and to protect the route only for authenticated users to enter (login_required). For example, we can set session_protection as strong, which flask_login records the client's IP address and browser's user agent information, and logs out if an exception is found. Households.

3 confirm account

In this blog, users need to confirm their accounts by getting confirmation emails. The ID in the URL where the message is sent is replaced by a token encrypted by the packet itdangerous. After that, login_require and befor_app_request are used to confirm whether the user confirms and restricts the operation of the client's user. If the user is intercepted, he will be directed to the confirmation page (confirm. html).

4 User Rights and Information

This blog has four users. All users in the model are registered as normal users by default. If the user performs an operation that exceeds their permission, the app will return an error page (403.html). Users can also change their avatars in settings over and over again, but this is not by uploading to the server, but by using gravatar to upload their avatars and e-mailboxes. Link up.

The function of Blog

1 Basic

Users can post their own articles in blogs. The list of articles will be displayed on the home page and on the user's personal page, respectively. Paging is also used for articles in blogs.

2 edit articles

Use markdown and flask page down to support rich text articles.

3 concern

Add follower to the database to store follower relationships. Here followers and users are many-to-many relationships. And it shows the articles of the users concerned on the home page.

4 user reviews

Users can submit their comments. The coordinator and administrator have the right to manage the published management and use the same paging management as the article. The FLASKY_COMMENTS_PAGE variable is added to config.py to control the number of comments per page.

The function of API

1 REST

According to the book the book web development, resources are the core idea of REST architecture. In REST architecture, resources are the most important thing you need to focus on in your program. In requests and related topics, resources are transmitted back and forth between clients and servers, but REST does not specify how to encode resources. JSON and XML are two common encoding methods of REST EEB support U. JISON is more suitable for the current situation, because JSON and JAVASCRIPT are closely linked, and avascript is

the client scripting language used by web browsers.

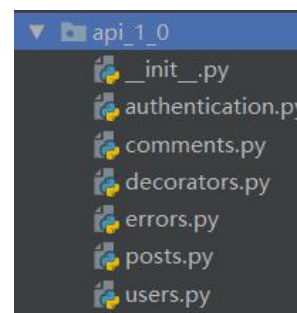
2 version

Updates to web apps can be very convenient, such as modifying the JSON format in blog posts, and providing modified blog posts through / API / v1.1 / post, while the client can still get the old JSON format through / API / v1.0 / posts.

3api blueprint

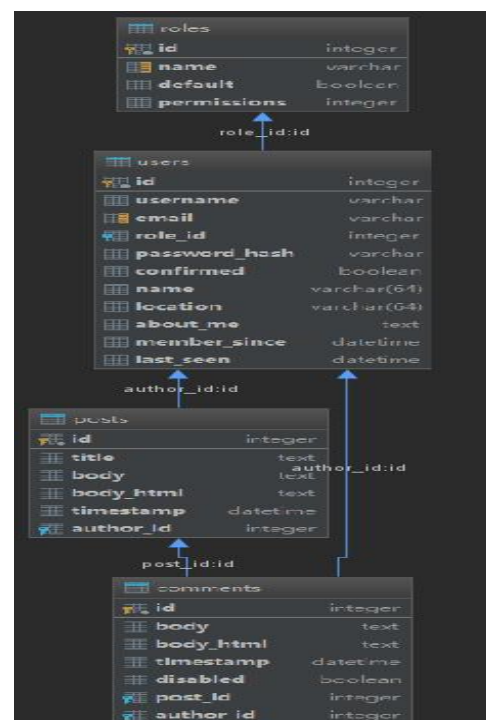
This web_app only provides blog posts, user reviews, error pages and user authentication api.

The API structure diagram



data base

I used the SQLite database in this app. The visualized structure is shown below.



Enhancements

1 upload pictures

In this blog, if users want to change their avatar or add some pictures to their blog, they have to get the URL of the pictures before they can use them. I hope to add a feature that uploads pictures locally, which will make blog easier for users to edit.

2 Classification and Search Functions

As the number of articles increases, we must add search and classification functions to avoid users wasting time looking for articles.

Critical Evaluation

This blog website basically realizes the basic functions of a blog website, but the functions of text editing and article classification and search are very weak.

Users can only edit articles in a fixed font and format, and also to get the URL of the picture to add the picture in the workdown text editor. And when there are a lot of articles, it is very difficult for users to find the articles they want, because there is no search function.

In terms of databases, I think I did a good job. This web-app has a complete database structure, in which I build user basic information, article basic information, comments and user privilege table, and establish the correct dependencies.

Personal evaluation

I started thinking about what I was going to do a few days before the course work. But the first time the failure of courewerk and the gap between Chinese and English teaching methods was my confusion. I came across this book(web

developing) by chance. This book gave me a lot of help and made me decide to make my own blog site in the second coursework. When I borrow the examples from the book, there are always a lot of bugs, but I have solved them through my own thinking and google.

I feel that I have done my best to complete this website. Although this site is not perfect, I am already very satisfied.

Reference

1. Miguel Grinberg, Flask Web Development: Developing Web Applications with Python, p154 p85, 2014