

Title:Django Application on Cloud

Abstract

We have designed a blog application using the python framework Django. The database used for this application was the Sqlite3 database. The website was hosted using the PythonAnywhere web hosting service which is based on the Python programming language. Django admin Panel and PythonAnywhere Cpanel wa setup for Cloud Hosting.

Introduction

The blog application is a blog-publishing service that allows multi-user blogs with time-stamped entries. User can write new blog or edit the previous ones. The date and time stamps are recorded when user writes a new blog. The new blog is not published until verified by admin. Once the admin verifies it, then the blog is posted on the application. The blogs are stored in cloud of the pythonanywhere enabling us to use cloud functionality.

Implementation Details

The blog application is written in the Python Programming Language using the Django web framework. The database used for this application was the Sqlite3 database. The website was hosted using the PythonAnywhere web hosting service which is based on the Python programming language.

Python is a widely used high-level programming language for general-purpose programming, created by Guido van Rossum and first released in 1991. An interpreted language, Python has a design philosophy which emphasizes code readability (notably using whitespace indentation to delimit code blocks rather than curly braces or keywords), and a syntax which allows programmers to express concepts in fewer lines of code than possible in languages such as C++ or Java. The language provides constructs intended to enable writing clear programs on both a small and large scale

Django is a free and open-source web framework, written in Python, which follows the model-view-template (MVT) architectural pattern. It is maintained by the Django Software Foundation (DSF), an independent organization established as a 501(c)(3) non-profit. Django's primary goal is to ease the creation of complex, database-driven websites. Django emphasizes reusability and "pluggability" of components, rapid development, and the principle of don't repeat yourself. Python is used throughout, even for settings files and data models. Django also provides an optional administrative create, read, update and delete interface that is generated dynamically through introspection and configured via admin models.

PythonAnywhere is an online Integrated Development Environment (IDE) and Web hosting service based on the Python programming language. It provides in-browser access to server-based Python and Bash Command-line interfaces, along with a code editor with Syntax highlighting. Program files can be transferred to and from the service using the user's browser. Web applications hosted by the service can be written using any WSGI-based application framework.

The project source code is uploaded on Github. The PythonAnywhere service imports the source code from github. The database is created on PythonAnywhere cloud service. So all the changes that are made in source code on Github are reflected in the application.

Result

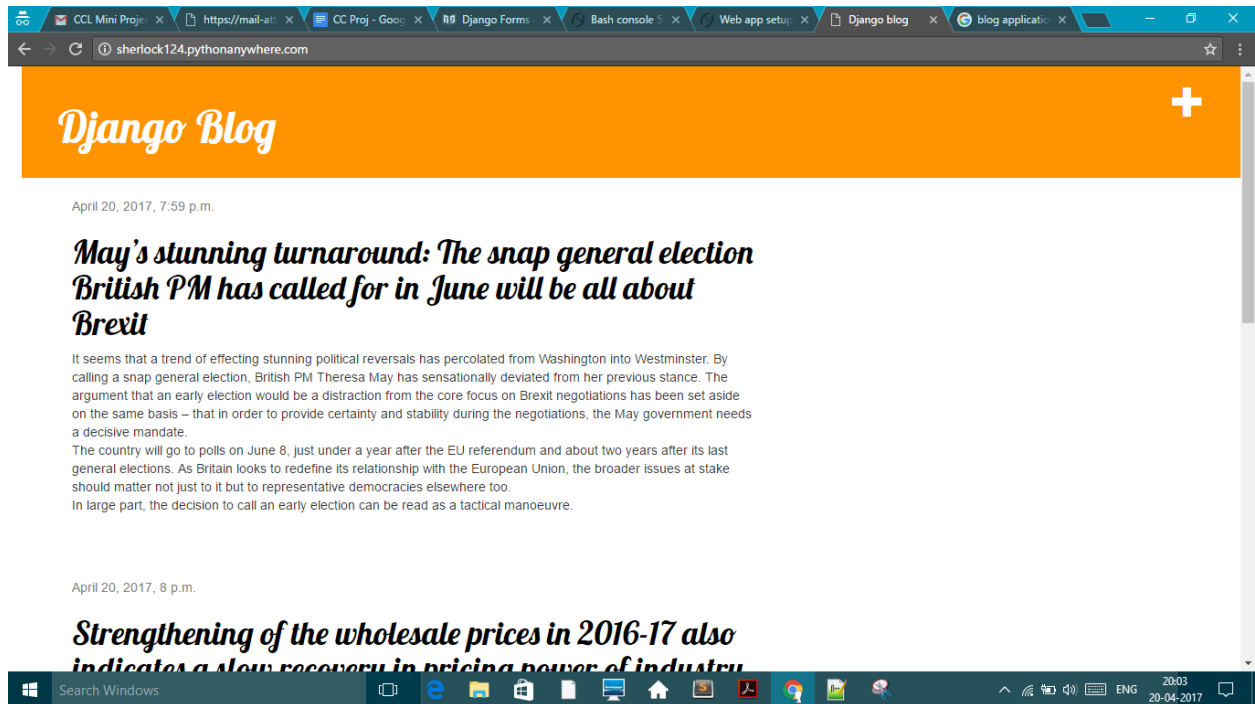
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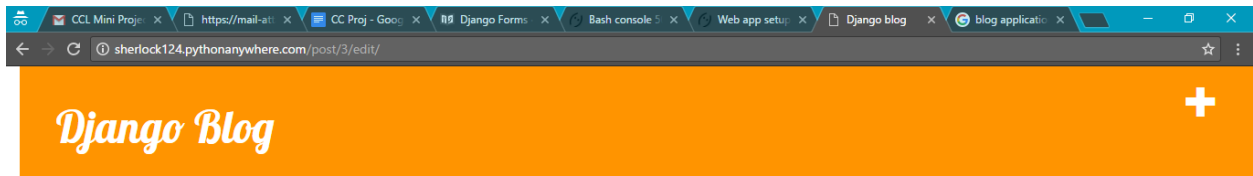
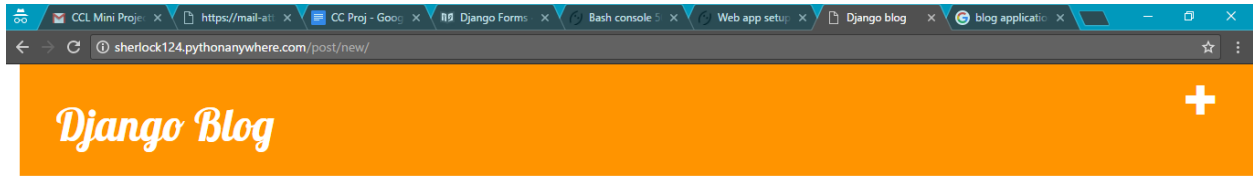
We create a virtual environment on the database of PythonAnywhere cloud and make changes into it and also changes in the code by importing it from Github.

A snapshot of database console:

```
100% | ██████████ | 6.8MB 192kB/s  
Installing collected packages: django  
Successfully installed django-1.10.7  
(myvenv) 14:05 ~/my-first-blog (master)$ python manage.py migrate  
Operations to perform:  
Apply all migrations: admin, auth, blog, contenttypes, sessions  
Running migrations:  
Applying contenttypes.0001_initial... OK  
Applying auth.0001_initial... OK  
Applying admin.0001_initial... OK  
Applying admin.0002_logentry_remove_auto_add... OK  
Applying contenttypes.0002_remove_content_type_name... OK  
Applying auth.0002_alter_permission_name_max_length... OK  
Applying auth.0003_alter_user_email_max_length... OK  
Applying auth.0004_alter_user_username_opts... OK  
Applying auth.0005_alter_user_last_login_null... OK  
Applying auth.0006_require_contenttypes_0002... OK  
Applying auth.0007_alter_validators_add_error_messages... OK  
Applying auth.0008_alter_user_username_max_length... OK  
Applying blog.0001_initial... OK  
Applying blog.0002_auto_20170113_2038... OK  
Applying blog.0003_post... OK  
Applying blog.0004_auto_20170331_2028... OK  
Applying sessions.0001_initial... OK  
(myvenv) 14:06 ~/my-first-blog (master)$
```

Snapshots





Conclusion

Thus we have successfully implemented a django application using the PythonAnywhere cloud service.

References

1. <https://www.pythonanywhere.com/>
2. <https://www.python.org/>
3. <https://www.djangoproject.com/>