AppStore program

Introduction

app_store Application to display the list of software in the app store. This project is developed using Flask framework for Python, SQLite database and Bootstrap front-end framework.

Design

Database Design

The application uses a SQLite database to store the application and application description data. The specific database design is as follows.

app_store table

Listings	type	describe
id	INTEGER	Self-growing ID
app_id	INTEGER	Application ID
track_name	TEXT	Application Name
size_bytes	INTEGER	Application Size（Bytes）
currency	TEXT	Currency Type
price	REAL	price

Listings	type	describe
rating_count_tot	INTEGER	Total number of ratings for all versions
rating_count_ver	INTEGER	Total number of ratings for the current version
user_rating	REAL	User ratings for all versions
user_rating_ver	REAL	User ratings for current version
ver	TEXT	Application Versions
cont_rating	TEXT	Content Ratings
prime_genre	TEXT	Main Type
sup_devices_num	INTEGER	Number of supported devices
ipadSc_urls_num	INTEGER	Number of iPad screenshots
lang_num	INTEGER	Number of languages
vpp_lic	INTEGER	VPP Licensing

app_store_desc Table

Listings	type	describe
id	INTEGER	Self-growing ID
app_id	INTEGER	Application ID

Listings	type	describe
app_desc	TEXT	Application describe

Front-end design

The application was designed using the Bootstrap front-end framework and includes the following pages:

- index.html：Used to display the list of applications.
- detail.html：Used to display application details.

Back-end design

The application is designed using Python's Flask framework and includes the following components.

- Flask application: used to handle HTTP requests and responses.
- SQLite database: for storing application and application description data.
- Flask Paginate library: used for pagination processing.
- Faker library: for random data generation.
- csv Library: for reading csv files.

Development

Installing dependencies

Before starting development, the following dependencies need to be installed.

```
pyenv local 3.7.0
python3 -m venv .venv
source .venv/bin/activate
pip install --upgrade pip
pip install Faker
pip install flask
pip install Flask-Paginate
pip install behave
pip install selenium
pip install gunicorn
pip freeze > requirements.txt
```

###Development and testing based on front-end and back-end design The project uses Behave and Selenium for automated testing, and tests can be run using the following commands:

```
behave
```

The test cases are located under the features folder.