Score Tesseract OCR

by reyzeal (Rizal Ardhi Rahmadani)

Environment Ubuntu Server
Python 3.x
Tesseract-OCR
OpenCV 4.x

Manual Installation

1. First of all, make sure you have Python3 installed

   ```
   sudo apt-get install python3 python3-pip
   ```

2. Install Tesseract-ocr

   ```
   sudo apt-get install tesseract-ocr
   ```

3. Install the dependency library

   ```
   sudo apt-get install libsm6
   ```

4. Download my source code to your specified server directory

   ```
   cd ~
   git clone https://github.com/reyzeal/score-tesseract
   cd score-tesseract
   ```

5. Install the virtualenv to make python environment for this project

   ```
   pip3 install virtualenv
   python3 -m virtualenv venv
   ```

6. Activate the environment

   ```
   source venv/bin/activate
   ```

7. Install all requirements library using requirements.txt

   ```
   pip3 install -r requirements.txt
   ```

8. you can try to run it:

   ```
   venv/bin/gunicorn -b 127.0.0.1:5000 app:app
   ```

```
ubuntu@ip-172-31-47-93:~/score-tesseract$ source venv/
.gitignore  bin/        lib/        pyvenv.cfg
ubuntu@ip-172-31-47-93:~/score-tesseract$ source venv/bin/activate
(venv) ubuntu@ip-172-31-47-93:~/score-tesseract$ venv/bin/gunicorn -b 127.0.0.1:
5000 app:app
[2020-07-14 04:50:16 +0000] [19481] [INFO] Starting gunicorn 20.0.4
[2020-07-14 04:50:16 +0000] [19481] [INFO] Listening at: http://127.0.0.1:5000 (
19481)
[2020-07-14 04:50:16 +0000] [19481] [INFO] Using worker: sync
[2020-07-14 04:50:16 +0000] [19484] [INFO] Booting worker with pid: 19484
```

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9. Done, if you prefer to run it as server service, stop the execution and do the following steps below.

Deploy as Systemd Service

1. You can use the template file that I've put in the folder server > score.service . If you know how to use vim / nano, you can directly create new file in **/etc/systemd/system/score.service** using this command : "sudo nano **/etc/systemd/system/score.service**".

```
[Unit]
Description=Reyzeal Score Tesseract Gunicorn daemon
After=network.target

[Service]
User=ubuntu
Group=ubuntu
WorkingDirectory=/home/ubuntu/score-tesseract
ExecStart=/home/ubuntu/score-tesseract/venv/bin/gunicorn -w 3 -b
127.0.0.1:5000 app:app

[Install]
WantedBy=multi-user.target
```

2. Change all variables, focus on the red mark:

```
User=<your username>
Group=<your username>
WorkingDirectory=/path/to/project
ExecStart=/path/to/project/venv/bin/gunicorn -w 3 -b 127.0.0.1:5000 app:app
```

3. Save the file on **/etc/systemd/system/score.service.** Just save and close it if you already using vim / nano directly.

4. Enable and start:

```
sudo systemctl enable score.service
sudo systemctl start score.service
```

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5. Check the status, it must be look like this:

```
sudo systemctl status score.service
```


Apache2 Configuration

If you want to make proxy through apache2 (make it public), you can add this following lines to your current site config file.

```
ProxyPreserveHost On
ProxyPass / http://127.0.0.1:5000/
ProxyPassReverse / http://127.0.0.1:5000/
```

Note : Make sure you have these mod enabled:
```
sudo a2enmod proxy
sudo a2enmod proxy_http
```