Install software
- https://www.sublimetext.com/
- Python pip
- Python venv
- Git
- Docker

```
$ sudo apt-get update
$ sudo apt install python3-pip python3-venv git libmysqlclient-dev
$ sudo apt-get install \
    apt-transport-https \
    ca-certificates \
    curl \
    software-properties-common
$ curl -fsSL https://download.docker.com/linux/ubuntu/gpg | sudo apt-key add -
$ sudo apt-key fingerprint 0EBFCD88
$ sudo add-apt-repository \
    "deb [arch=amd64] https://download.docker.com/linux/ubuntu \
    $(lsb_release -cs) \
    stable"
$ sudo apt-get update
$ sudo apt-get install docker-ce docker-compose
$ sudo usermod -aG docker $USER #Optional
$ # Reboot
```

ตรวจสอบ การติดตั้งโปรแกรมแต่ละอัน


```
test@test-VirtualBox:~$ git --version
git version 2.17.1
test@test-VirtualBox:~$ python3 --version
Python 3.6.5
test@test-VirtualBox:~$ pip3 --version
pip 9.0.1 from /usr/lib/python3/dist-packages (python 3.6)
test@test-VirtualBox:~$ docker --version
Docker version 18.03.1-ce, build 9ee9f40
test@test-VirtualBox:~$
```

เริ่มต้น การพัฒนาโปรแกรม
1. สร้าง Virtual environment และติดตั้ง Django

```
test@test-VirtualBox:~$ python3 -m venv myproject
test@test-VirtualBox:~$ . myproject/bin/activate
(myproject) test@test-VirtualBox:~$ pip3 install django
```

```
Collecting django
  Downloading
https://files.pythonhosted.org/packages/56/0e/afdacb47503b805f3ed213fe732bff05254c8b
efaa034bbada580be8a0ac/Django-2.0.6-py3-none-any.whl (7.1MB)
        100% |███████████████████████████████| 7.1MB 252kB/s
Collecting pytz (from django)
  Downloading
https://files.pythonhosted.org/packages/dc/83/15f7833b70d3e067ca91467ca245bae0f6fe5
6ddc7451aa0dc5606b120f2/pytz-2018.4-py2.py3-none-any.whl (510kB)
        100% |███████████████████████████████| 512kB 2.5MB/s
Installing collected packages: pytz, django
Successfully installed django-2.0.6 pytz-2018.4
```

2. ติดตั้ง MySQL Library

```
(myproject) test@test-VirtualBox:~$ pip install wheel
Collecting wheel
  Downloading
https://files.pythonhosted.org/packages/81/30/e935244ca6165187ae8be876b6316ae201b
71485538ffac1d718843025a9/wheel-0.31.1-py2.py3-none-any.whl (41kB)
        100% |███████████████████████████████| 51kB 868kB/s
Installing collected packages: wheel
Successfully installed wheel-0.31.1
```

```
(myproject) test@test-VirtualBox:~$ pip install mysqlclient
Collecting mysqlclient
  Using cached
https://files.pythonhosted.org/packages/ec/fd/83329b9d3e14f7344d1cb31f128e6dbba70c5
975c9e57896815dbb1988ad/mysqlclient-1.3.13.tar.gz
Building wheels for collected packages: mysqlclient
  Running setup.py bdist_wheel for mysqlclient ... done
  Stored in directory:
/home/test/.cache/pip/wheels/71/9b/6f/a8c79bceb4a35f4acf49363883f958f31b113470a3b
504df87
Successfully built mysqlclient
Installing collected packages: mysqlclient
Successfully installed mysqlclient-1.3.13
```

3. สร้าง Python Django Project

```
(myproject) test@test-VirtualBox:~$ django-admin startproject mysite
(myproject) test@test-VirtualBox:~$ cd mysite
(myproject) test@test-VirtualBox:~/mysite$ python manage.py runserver
Performing system checks...

System check identified no issues (0 silenced).
```
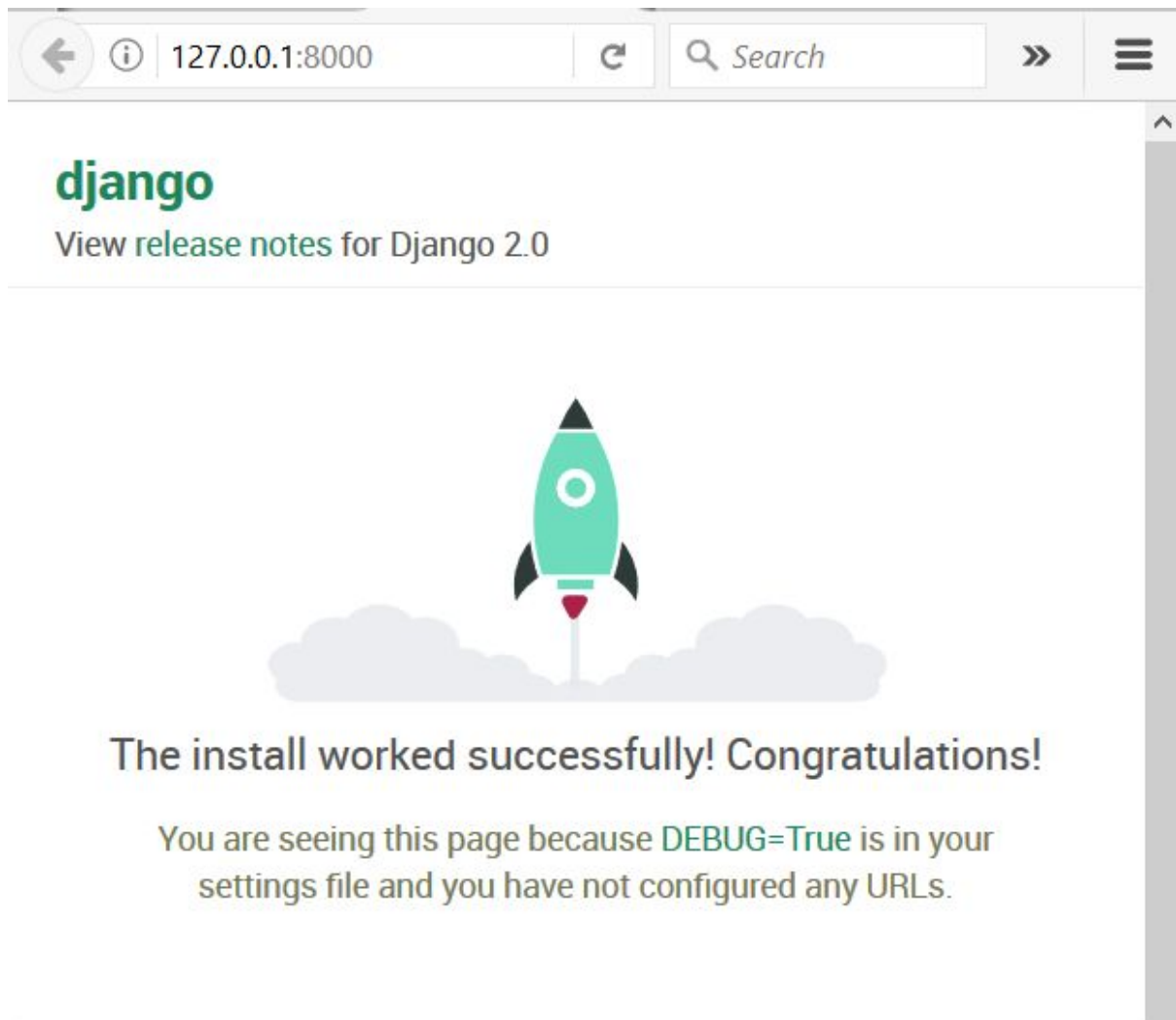
```
You have 14 unapplied migration(s). Your project may not work properly until you apply
the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.

June 27, 2018 - 09:30:46
Django version 2.0.6, using settings 'mysite.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CONTROL-C.
```

4. Check http://127.0.0.1:8000/

5. ทุกครั้งที่ปิดหน้าต่าง Terminal จะต้องเปิดใช้งาน Virtual Environment ใหม่ทุกครั้ง

```
test@test-VirtualBox:~$ . myproject/bin/activate
(myproject) test@test-VirtualBox:~$
```

และหากมีการสร้าง Environment File ให้ทำการเรียกใช้งานด้วย

```
$ . .env
```