Deployment of Django App with PostgreSQL

virtual environment creation

- first started with Django is to create the virtual environment.

```
sudo pip install virtualenv
```

- Created a project folder called “myproject” in the “/var” directory:

```
mkdir /var/myproject

cd /var/myproject
```

- Then used virtualenv to create environment-specific dependencies to be installed

```
[root@pga /]# virtualenv /var/myproject/myprojectenv

Using base prefix '/opt/rh/rh-python36/root/usr'

New python executable in /var/myproject/myprojectenv/bin/python3

Also creating executable in /var/myproject/myprojectenv/bin/python

Installing setuptools, pip, wheel...done.
```

- Python is now installed and activate the environments

```
[root@pga /]# source /var/myproject/myprojectenv/bin/activate

(myprojectenv) [root@pga /]# python --version

Python 3.6.3
```

Step to Installing Django

In below we are installing Django into that environment

```
pip install django
```

Now, Django is installed and start a new Django project:

```
/var/myproject/myprojectenv/bin

(myprojectenv) [root@pga bin]# django-admin.py startproject myproject
```

I used below code

< mycode.py>

```
. . .
DATABASES = {
    'default': {
        'ENGINE': 'django.db.backends.postgresql_psycopg2',
        'NAME': '<mydb_name>',
        'USER': '<username>',
        'PASSWORD': '<password>',
        'HOST': '<db_hostname_or_ip>',
        'PORT': '<db_port>',
    }
}
```

- Now Started the application to confirm the app status:

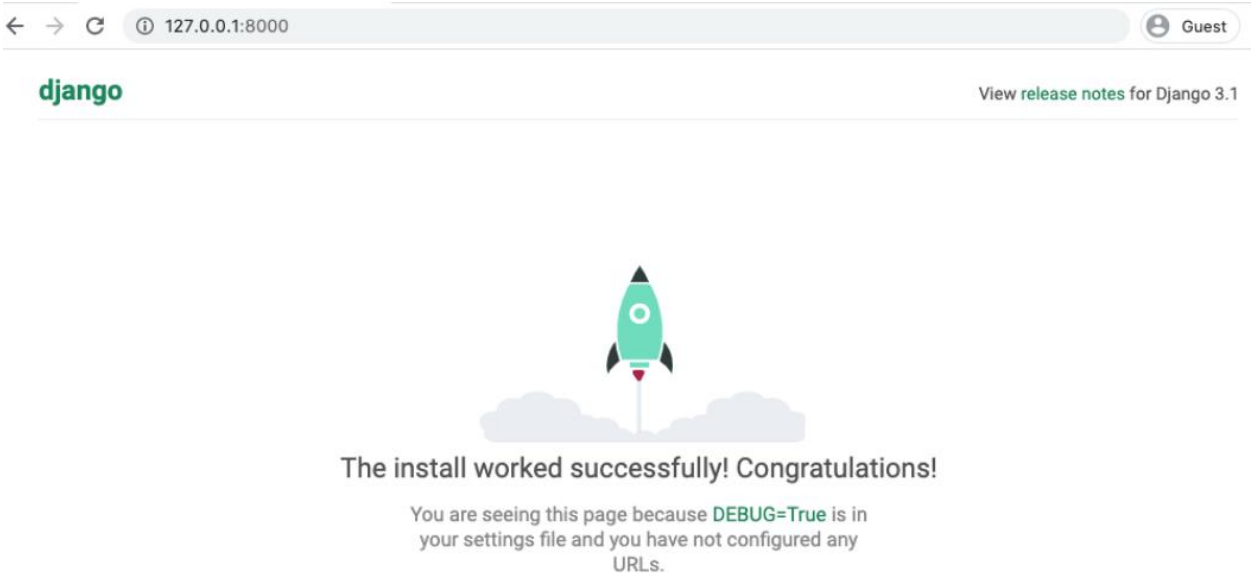
```
(myprojectenv) [root]# python manage.py runserver 0.0.0.0:5000
Watching for file changes with StatReloader
Performing system checks...

System check identified no issues (0 silenced).
December 06, 2019 - 07:06:22
```

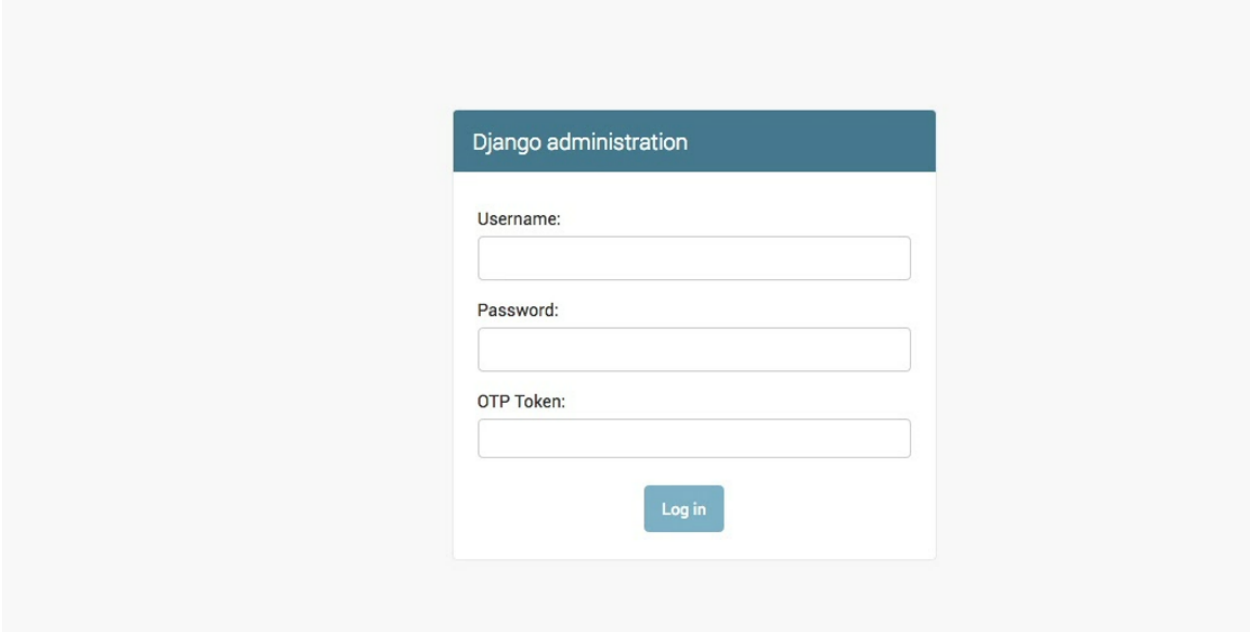
```
Django version 3.0, using settings 'myproject.settings'

Starting development server at http://0.0.0.0:5000/
```

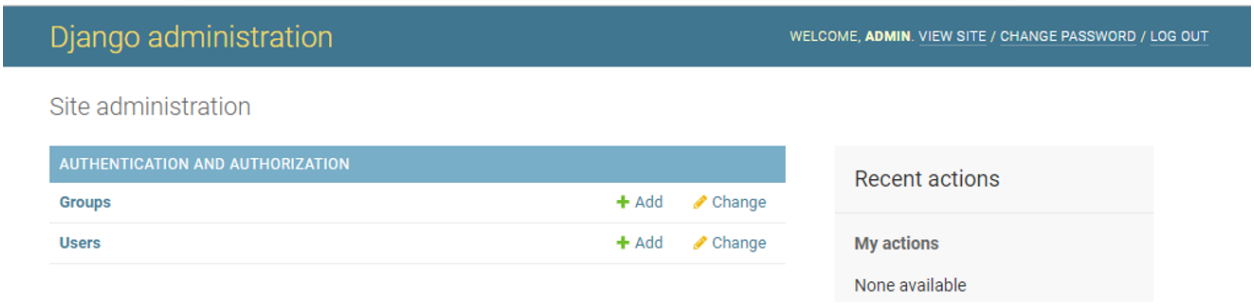
- Browsed the IPs of local host EC2 for confirm the applicated



Login prompt of Django – Given my admin access

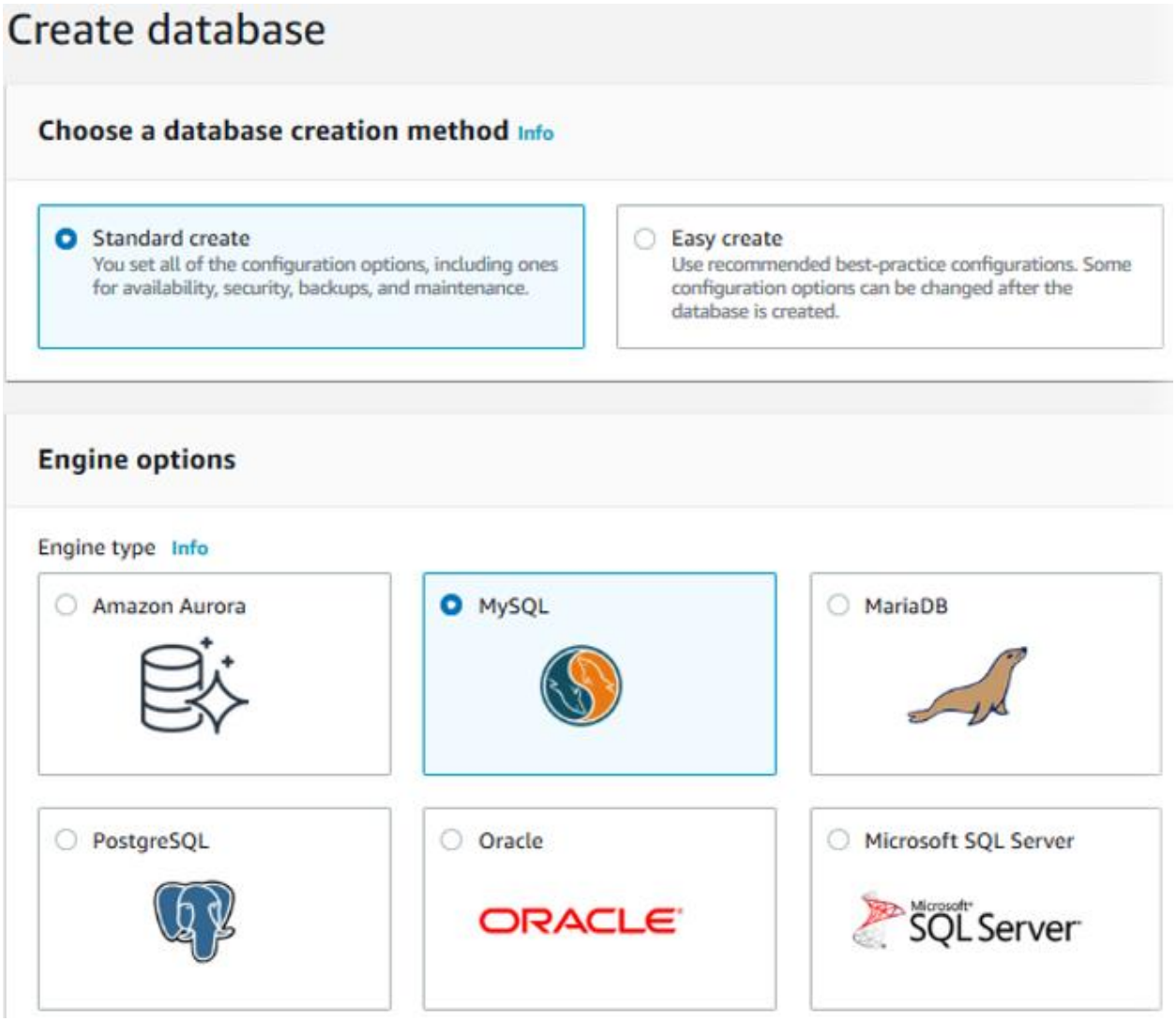


Admin view after login on Django



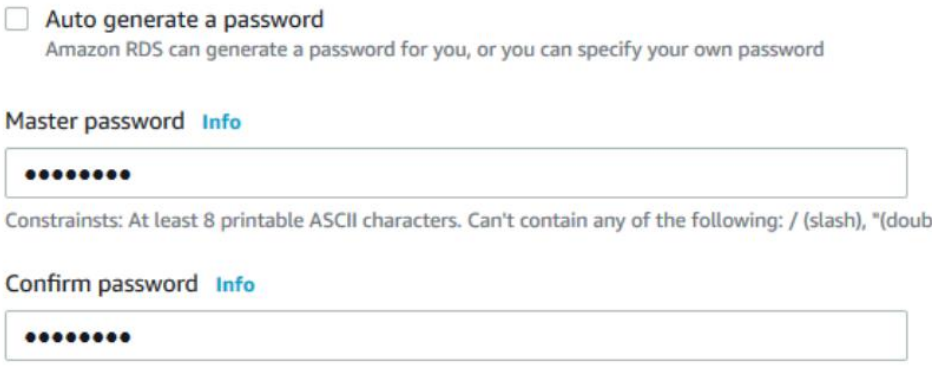
RDS schemas deployed in an AWS account

- First, I Login AWS Management Console and open the Amazon RDS console
- Then,Amazon RDS console, choose the AWS
- I selected - Create database.
- In Teb,Choose a database creation method, select Standard Create.
- In Engine options, selected the engine type: RDS

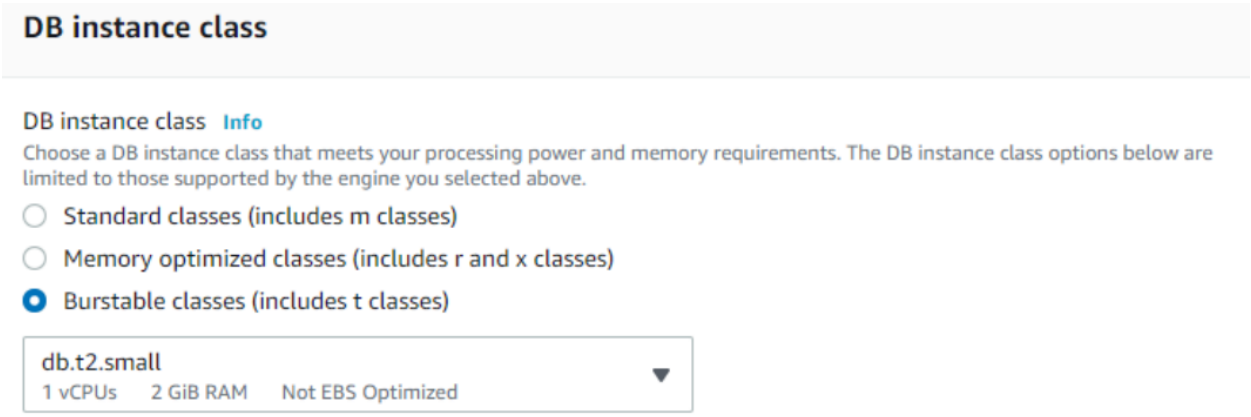


- For Version, choose the appropriate engine version.
- selected in a later step:
  - Multi-AZ failover option
  - Provisioned IOPS storage option
  - Enable deletion protection option

Created the access



Selected the type of instance type



Defined all the networking details

- VPC
- Security Group
- Additional configuration Database port

Finally- Review the RDS in aws console and clicked to create DB

RDS > Create database

Your DB instance is being created.
Note: Your instance may take a few minutes to launch.

Connecting to your DB instance

Once Amazon RDS finishes provisioning your DB instance, you can use a SQL client application or utility to connect to the instance.
Learn about connecting to your DB instance