DOCUMENTATION AWS-DJANGO

Pierre-Victor CHAUMIER

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1. launch instance

   - go on EC2 page
   - on left panel, click on instance
   - click on launch instance button
   - select distro
   - select instance type
   - choose a security key or create a new one (DO NOT LOOSE IT, it is used to connect to the instance. Key lost means having to kill the instance and start again..) I put it in the /.ssh/ folder

   Now your instance should be up running

2. Create a DB

   - on the main AWS panel, go on RDS
   - click on get started now
   - Select database
   - production (be careful dafault one is not free)
   - choose details and settings (for instance my DB instance identifier is "dbinstance", my master username is "dbadmin" and my password is "password" no kidding i
   - complete advanced settings. BE CAREFUL with publicly accessible. I put no so that only my instances on AWS can access it. Choose a dbname (mine is dbname_of_project)
   - click on launching db instance. Creating a DB can take a little time so be patient.
   - create a security group (they are available from the ec2 dashboard on the left) name it as you wish (i choose dbsecuritygroup), inbound should be HTTP with custom IP for the source. The custom IP will be the identifier of the security group of your instance sg...

That is it, your DB should be safe and running now.

3. Setting up the shortcut to connect with ssh using config file in .ssh/ folder

   - go in your /.ssh/ folder
   - create a file named config
   - fill it as follow : Host name_of_shortcut HostName addresse of your instance ec2... User name_of_user (ubuntu for ubuntu instances) IdentityFile /path/to/key/file/ (generated earlier)
   - change rights chmod 700 for /.ssh/ folder chmod 600 for the key
   - run commande : ssh name_of_shortcut to connect to the instance

   Now you should be connected to the terminal of the instance.

4. installation (postgre etc..) simply run the following commands (for debian/ubuntu instance):

   - sudo apt-get update
   - sudo apt-get upgrade
   - sudo apt-get install -y python git python-pip postgresql postgresql-server-dev-all python-dev libpq-dev supervisor nginx vim curl ntp libncurses5-dev make build-essential libssl-dev zlib1g-dev libbz2-dev libreadline-dev libsqlite3-dev wget curl llvm tcl8.5

5. clone your repository

   This part is up to you. Git is installed so if you use git+github then you just have to git clone your repo and that is it. The point here is to put your django project on the instance.

6. installation pyenv, pyenv virtualenv, pip and requirements.txt (if you have one)

   Normally, git should be installed by now. It is time to install pyenv and pyenv wrapper. Here is a good start. However, do not install following what is in the link but what is above.

   - To install pyenv, follow the very well made guide here : `https://github.com/yyuu/pyenv#installation` (source the .bash_profile file after modification or it might not be taken into account)
   - now install virtualenv following instructions here : `https://github.com/yyuu/pyenv-virtualenv`
   - create a virtualenv with this command : pyenv virtualenv 2.7.8 nom_du_virtualenv
   - to install pip ... well do nothing, the previous command took care of it :D
   - use pip install -r /path/to/requirement.txt to install all the required program with pip (fairly practical..)
   - to activate the virtual env do : pyenv activate name_virtualenv

7. configuration of supervisor It is a program that launch and supervise different process automatically for us (thx dude). Here is how to configure it :

   - sudo vim /etc/supervisor/conf.d/django.conf
   - fill the document with :

     [program:name_wsgi_process]
     command=/home/ubuntu/.pyenv/versions/name_project_env/bin/gunicorn
     name_project.wsgi:application -b 127.0.0.1:8005 -w 4 -t 30
     environment=LANG="en_US.UTF-8"
     directory=/home/ubuntu/name_project/name_project/
     user=name_of_user (ubuntu in general)
     autostart=True
     autorestart=True
     stdout_logfile=/var/log/django.log
     stderr_logfile=/var/log/django.log

   - enter : sudo supervisorctl update. This should returns added process group.
   - after modifications of django.conf file, you can launch these command to make them taken into account.
     supervisorctl reread
     supervisorctl reload

8. configure nginx

   - run sudo vim /etc/nginx/sites-available/django
   - put this in it replacing what should be replaced. server_names_hash_bucket_size 350;

     underscores_in_headers on;

     server listen 80; server_name project_name client_max_body_size 10m; set $static_root "/path/to/static/files"; set $media_root "/path/to/media/files";

     location /static alias $static_root; expires max;

     location /media alias $media_root; expires max;

     location = /favicon.ico rewrite (.*) /static/ico/favicon.ico;

     location / proxy_set_header X-Real-IP $remote_addr; proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for; proxy_set_header Host $http_host; proxy_pass http://127.0.0.1:8005; proxy_read_timeout 120; proxy_connect_timeout 120;
   - run cd /etc/nginx/sites-enabled/
   - if there is a default file in it, remove it (sudo rm default)
   - creation of a symbolic link to our file : sudo ln -s /etc/nginx/sites-available/django django
   - to launch the server type : sudo service nginx start

9. every time you modify something, the dev server relaunch by itself, here it is not the case. You have to type : sudo supervisorctl restart name_wsgi_process sudo service nginx reload