Flask Framework

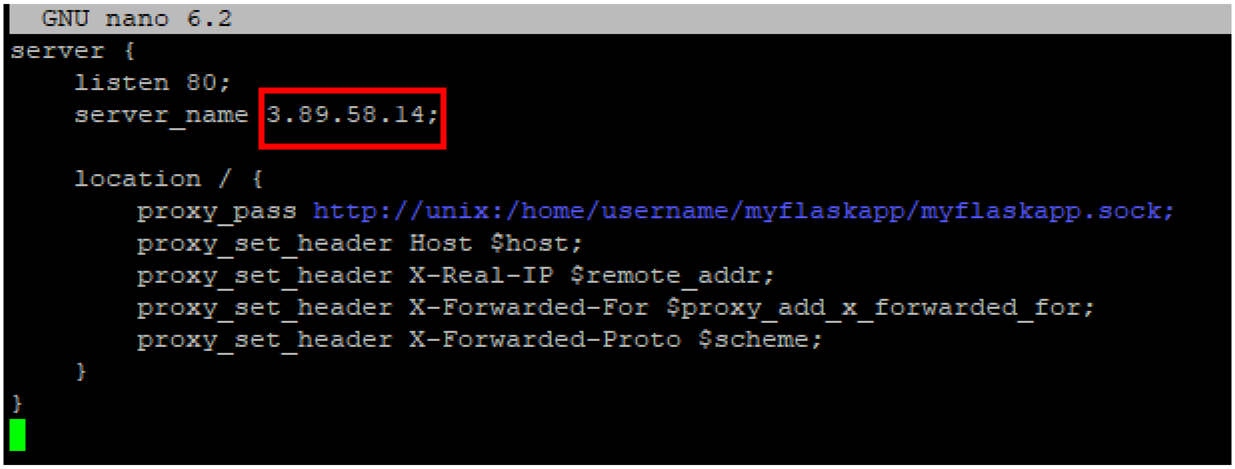
Usage instructions:

1. Launch the product via 1-click. **Please wait until** the instance passes **all** status checks and is running. You can connect using your Amazon private key and '**ubuntu**' login via your SSH client.

To update software, use: **sudo apt-get update**

2. Configure the Nginx proxy requests to your Flask application. Run the following command and **change** the “server_name” address to your Instance’s Public IPv4 address or domain name as seen below. At the prompt, run:

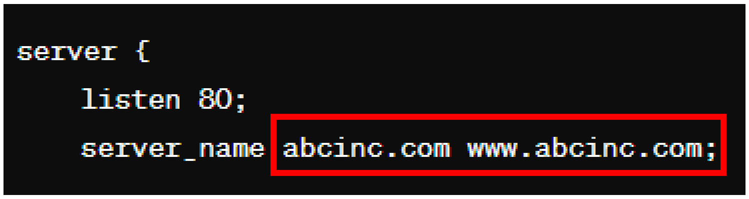
sudo nano /etc/nginx/sites-available/myflaskapp



```
  GNU nano 6.2
server {
    listen 80;
    server_name 3.89.58.14;

    location / {
        proxy_pass http://unix:/home/username/myflaskapp/myflaskapp.sock;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header X-Forwarded-Proto $scheme;
    }
}
```

or



```
server {
    listen 80;
    server_name abcinc.com www.abcinc.com;
```

3. **Save & Exit**

4. Check your configuration for syntax errors:

sudo nginx -t

5. Restart Nginx to apply the changes:

sudo systemctl restart nginx

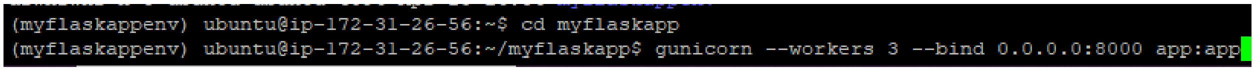
Note: The server has been configured with a sample template, image and text for testing. You can edit the scripts shown below in the “Directories” section below.

7. Activate the Virtual Environment: At the ubuntu prompt run:

source myflaskappenv/bin/activate

8. Once inside the virtual environment, Start the Flask Application with Gunicorn. Change directories:

cd myflaskapp



```
(myflaskappenv) ubuntu@ip-172-31-26-56:~$ cd myflaskapp
(myflaskappenv) ubuntu@ip-172-31-26-56:~/myflaskapp$ gunicorn --workers 3 --bind 0.0.0.0:8000 app:app
```

gunicorn --workers 3 --bind 0.0.0.0:8000 app:app

9. Leave server running and your Flask application should now be accessible at:

http://YourInstanceIPaddres or domain name

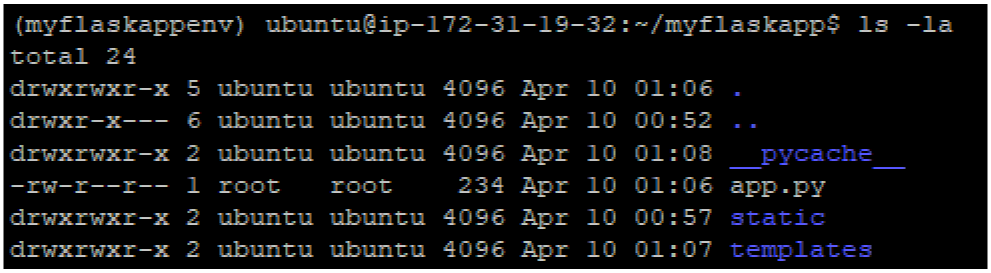
- For ex: http://45.32.230

Directories

All the directories are located in the “myflaskapp” folder.

cd myflaskapp

ls -la



```
(myflaskappenv) ubuntu@ip-172-31-19-32:~/myflaskapp$ ls -la
total 24
drwxrwxr-x 5 ubuntu ubuntu 4096 Apr 10 01:06 .
drwxr-x--- 6 ubuntu ubuntu 4096 Apr 10 00:52 ..
drwxrwxr-x 2 ubuntu ubuntu 4096 Apr 10 01:08 __pycache__
-rw-r--r-- 1 root   root    234 Apr 10 01:06 app.py
drwxrwxr-x 2 ubuntu ubuntu 4096 Apr 10 00:57 static
drwxrwxr-x 2 ubuntu ubuntu 4096 Apr 10 01:07 templates
```

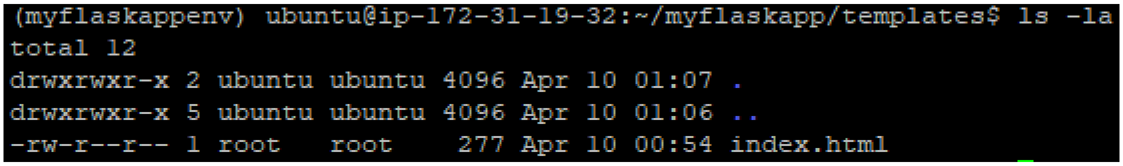
Edit Configuration

sudo nano app.py

Edit Template

cd templates

sudo nano index.html

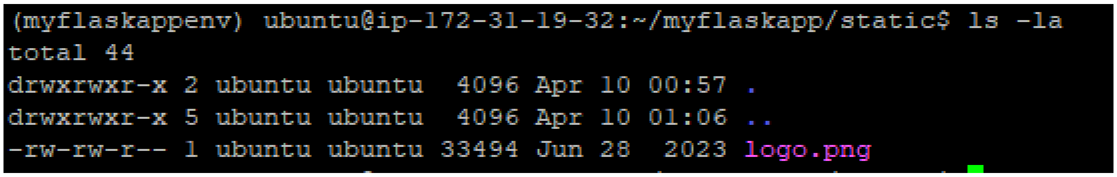


```
(myflaskappenv) ubuntu@ip-172-31-19-32:~/myflaskapp/templates$ ls -la
total 12
drwxrwxr-x 2 ubuntu ubuntu 4096 Apr 10 01:07 .
drwxrwxr-x 5 ubuntu ubuntu 4096 Apr 10 01:06 ..
-rw-r--r-- 1 root   root    277 Apr 10 00:54 index.html
```

Edit Image

cd static

ls -la



```
(myflaskappenv) ubuntu@ip-172-31-19-32:~/myflaskapp/static$ ls -la
total 44
drwxrwxr-x 2 ubuntu ubuntu  4096 Apr 10 00:57 .
drwxrwxr-x 5 ubuntu ubuntu  4096 Apr 10 01:06 ..
-rw-rw-r-- 1 ubuntu ubuntu 33494 Jun 28  2023 logo.png
```

AWS Data

- Data Encryption Configuration: This solution does not encrypt data within the running instance.
- User Credentials are stored: /root/.ssh/authorized_keys & /home/ubuntu/.ssh/authorized_keys
- Monitor the health:
    - Navigate to your Amazon EC2 console and verify that you're in the correct region.
    - Choose Instance and select your launched instance.
    - Select the server to display your metadata page and choose the Status checks tab at the bottom of the page to review if your status checks passed or failed.

Extra Information: (Optional)

Allocate Elastic IP

To ensure that your instance **keeps its IP during restarts** that might happen, configure an Elastic IP. From the EC2 console:

1. Select ELASTIC IPs.
2. Click on the ALLOCATE ELASTIC IP ADDRESS.
3. Select the default (Amazon pool of IPv4 addresses) and click on ALLOCATE.
4. From the ACTIONS pull down, select ASSOCIATE ELASTIC IP ADDRESS.
5. In the box that comes up, note down the Elastic IP Address, which will be needed when you configure your DNS.
6. In the search box under INSTANCE, click and find your INSTANCE ID and then click ASSOCIATE.
7. Your instance now has an elastic IP associated with it.
8. For additional help: https://docs.aws.amazon.com/AWSEC2/latest/UserGuide/elastic-ip-addresses-eip.html

Using Your Own Domain Name

1. You will need to configure your DNS entry for the new host server you created.
2. Change your domain's "Record Set" value to point to your new instance. Change and copy your "IPv4 Public IP" into the "A" type value.
3. For additional help: https://docs.aws.amazon.com/Route53/latest/DeveloperGuide/rrsets-working-with.html