## **Python in Containers** Course Materials

## Section 3. "Implementing Proxy Server"

Links:

https://github.com/pythonincontainers/django-polls

https://nginx.org/en/docs/

https://www.openssl.org/docs/

Commands:

```
$ docker kill -s SIGTERM db
$ docker rm db
$ docker run -d --network polls net -e
"POSTGRES PASSWORD=myprecious" --name db -v
polls vol:/var/lib/postgresql/data postgres
$ docker logs db
$ docker build -t django-polls:uwsgi4nginx -f
Dockerfile.uwsgi4nginx --build-arg BaseImage=uwsgi .
$ docker run -it --rm --network polls net -e
"DATABASE URL=postgres://pollsuser:pollspass@db/pollsdb" django-
polls:uwsgi4nginx python manage.py migrate
$ docker run -it --rm --network polls net -e
"DATABASE URL=postgres://pollsuser:pollspass@db/pollsdb" django-
polls:uwsgi4nginx python manage.py loaddata initial data.json
$ docker run -it --rm --network polls net -e
"DATABASE URL=postgres://pollsuser:pollspass@db/pollsdb" django-
polls:uwsgi4nginx python manage.py createsuperuser
$ docker run -d -e
"DATABASE URL=postgres://pollsuser:pollspass@db/pollsdb" --
network polls net --name app1 django-polls:uwsgi4nginx
$ docker logs app1
$ docker build -t mynginx -f Dockerfile.nginx .
```

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```
$ docker run -it --rm --network polls net -p 8000:8000 mynginx
$ docker run -d --network polls net -p 8000:8000 mynginx
$ docker build -t mynginx:ssl -f Dockerfile.nginx-ssl .
$ docker run -it --rm --network polls net -p 443:443 mynginx:ssl
$ docker run -d -e
"DATABASE URL=postgres://pollsuser:pollspass@db/pollsdb" --
network polls net --name app2 django-polls:uwsgi4nginx
mysite nginx ssl.conf:
upstream django {
 server app1:8000;
 server app2:8000;
}
$ docker build -t mynginx:lb -f Dockerfile.nginx-ssl .
$ docker run -d --name proxy --network polls net -p 443:443
mynginx:lb
$ docker logs app1
$ docker logs app2
$ docker system prune
```