

## Section 3. „Production-grade Database Engines - PostgreSQL”

Links:

<https://docs.djangoproject.com/en/2.2/ref/settings/#databases>

[https://hub.docker.com/\\_/postgres](https://hub.docker.com/_/postgres)

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

<https://hub.docker.com/r/dpage/pgadmin4>

Commands:

```
$ docker network create polls_net
```

```
$ docker run -d --name db --network polls_net -e  
POSTGRES_PASSWORD=myprecious postgres
```

```
$ docker exec -it db psql -U postgres
```

```
$ docker run -it --rm --network polls_net postgres psql -h db -U  
postgres
```

```
Postgres=# CREATE USER pollsuser WITH PASSWORD 'pollspass' CREATEDB;
```

```
Postgres=# CREATE DATABASE pollsdb WITH OWNER pollsuser;
```

```
Postgres=# \l
```

```
Postgres=# \du
```

```
Postgres=# exit
```

```
$ docker run -d --name db --network polls_net -e  
"POSTGRES_DB=pollsdb" -e "POSTGRES_USER=pollsuser" -e  
"POSTGRES_PASSWORD=pollspass" postgres
```

```
$ docker build -t django-polls:postgres -f Dockerfile.postgres -  
-build-arg BaseImage=gunicorn .
```

```
$ docker run -it --rm --network polls_net django-polls:postgres  
python manage.py migrate
```

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```
$ docker run -it --rm --network polls_net django-polls:postgres  
python manage.py loaddata initial_data.json
```

```
$ docker run -it --rm --network polls_net django-polls:postgres  
python manage.py createsuperuser
```

```
$ docker run -it --rm --network polls_net -p 8000:8000 django-  
polls:postgres
```

```
$ docker run -it --rm --network polls_net django-polls:postgres  
python manage.py test
```

```
$ docker rm -f db
```

```
$ docker volume create polls_vol
```

```
$ docker run -d --name db --network polls_net -e  
POSTGRES_PASSWORD=myprecious -v  
polls_vol:/var/lib/postgresql/data postgres
```

```
$ docker run -d --network polls_net -p 8080:80 -e  
"PGADMIN_DEFAULT_EMAIL=admin@example.net" -e  
"PGADMIN_DEFAULT_PASSWORD=admin" dpage/pgadmin4
```

```
$ docker run -it --rm --network polls_net django-polls:postgres  
python manage.py migrate
```

```
$ docker run -it --rm --network polls_net django-polls:postgres  
python manage.py loaddata initial_data.json
```

```
$ docker run -it --rm --network polls_net django-polls:postgres  
python manage.py createsuperuser
```

```
$ docker run -it --rm --network polls_net -p 8000:8000 django-  
polls:postgres
```

```
$ docker kill -s SIGTERM db
```

```
$ docker rm -f db
```