```
PS C:\Users\chuhl\Desktop\python-app> tree /f
Folder PATH listing
Volume serial number is 288A-E689
C:.
    app.py
    docker-compose.yml
    Dockerfile
    requirements.txt

No subfolders exist

PS C:\Users\chuhl\Desktop\python-app> cat app.py
from flask import Flask
app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello from Flask, PostgreSQL from Docker!"

if __name__ == "__main__":
    app.run(host="0.0.0.0", port=5000)
PS C:\Users\chuhl\Desktop\python-app> cat Dockerfile
FROM python:3.10-slim

WORKDIR /app

COPY requirements.txt .
RUN pip install --no-cache-dir -r requirements.txt

COPY app.py .

CMD ["python", "app.py"]
PS C:\Users\chuhl\Desktop\python-app> cat requirements.txt
flask
psycopg2-binary
PS C:\Users\chuhl\Desktop\python-app>
```

```
PS C:\Users\chuhl\docker-cd-practice\python-flask-sql> ls


    Directory: C:\Users\chuhl\docker-cd-practice\python-flask-sql


Mode                 LastWriteTime         Length Name
----                 -------------         ------ ----
-a----         30.11.2025     18:51            207 app.py
-a----         30.11.2025     18:50            551 docker-compose.yml
-a----         30.11.2025     18:50            163 Dockerfile
-a----         30.11.2025     18:49             24 requirements.txt


PS C:\Users\chuhl\docker-cd-practice\python-flask-sql> docker compose up --build
time="2025-11-30T19:06:28+02:00" level=warning msg="C:\\Users\\chuhl\\docker-cd-practice\\python-flask-sql\\docker-compose.yml: the attribute `version` is obsolete, it wi
ll be ignored, please remove it to avoid potential confusion"
[+] Running 14/14
 ✔ db Pulled                                                                16.3s
   ✔ b10108f2d223 Pull complete                                              0.6s
   ✔ 5a19b1f63ace Pull complete                                              4.3s
   ✔ 9fcd228516aa Pull complete                                              1.2s
   ✔ fa51353b2c9b Pull complete                                             11.0s
   ✔ 2c64a0db539b Pull complete                                              1.0s
   ✔ 6e6c09f9e058 Pull complete                                             14.1s
   ✔ 4eb4a683c389 Pull complete                                              0.9s
   ✔ b475dc4bba47 Pull complete                                             14.0s
   ✔ 304e9b7c93e6 Pull complete                                              0.9s
   ✔ 2e6036390374 Pull complete                                              1.3s
   ✔ 95bcad39f7ff Pull complete                                              0.9s
   ✔ dd23ed782cae Pull complete                                              4.4s
   ✔ e213bd2560e2 Pull complete                                              0.9s
[+] Building 8.3s (13/13) FINISHED
```

```
postgres-db    |   done
postgres-db    |  server stopped
postgres-db    |
postgres-db    |  PostgreSQL init process complete; ready for start up.
postgres-db    |
postgres-db    |  2025-11-30 17:06:56.578 UTC [1] LOG:  starting PostgreSQL 15.15 (Debian 15.15-1.pgdg13+1) on x86_64-pc-linux-gnu, compiled by gcc (Debian 1
4.2.0-19) 14.2.0, 64-bit
postgres-db    |  2025-11-30 17:06:56.579 UTC [1] LOG:  listening on IPv4 address "0.0.0.0", port 5432
postgres-db    |  2025-11-30 17:06:56.579 UTC [1] LOG:  listening on IPv6 address "::", port 5432
postgres-db    |  2025-11-30 17:06:56.583 UTC [1] LOG:  listening on Unix socket "/var/run/postgresql/.s.PGSQL.5432"
postgres-db    |  2025-11-30 17:06:56.589 UTC [62] LOG:  database system was shut down at 2025-11-30 17:06:56 UTC
postgres-db    |  2025-11-30 17:06:56.596 UTC [1] LOG:  database system is ready to accept connections
flask-backend  |  172.18.0.1 - - [30/Nov/2025 17:07:24] "GET / HTTP/1.1" 200 -
flask-backend  |  172.18.0.1 - - [30/Nov/2025 17:07:25] "GET /favicon.ico HTTP/1.1" 404 -
postgres-db    |  2025-11-30 17:07:28.854 UTC [67] LOG:  invalid length of startup packet
postgres-db    |  2025-11-30 17:07:30.030 UTC [68] LOG:  invalid length of startup packet
postgres-db    |  2025-11-30 17:07:35.060 UTC [69] LOG:  invalid length of startup packet
postgres-db    |  2025-11-30 17:08:05.113 UTC [71] LOG:  invalid length of startup packet
postgres-db    |  2025-11-30 17:11:56.666 UTC [60] LOG:  checkpoint starting: time
postgres-db    |  2025-11-30 17:12:00.698 UTC [60] LOG:  checkpoint complete: wrote 43 buffers (0.3%); 0 WAL file(s) added, 0 removed, 0 recycled; write=4.01
8 s, sync=0.006 s, total=4.033 s; sync files=11, longest=0.003 s, average=0.001 s; distance=252 kB, estimate=252 kB
```

Ask Gordon BETA

Containers

Images

Volumes

Kubernetes

Builds

Models

MCP Toolkit BETA

Docker Hub

Docker Scout

Extensions

python-flask-sql
C:\Users\chuhl\docker-cd-practice\python-flask-sql

View configurations

db •
postgres:15
5432:5432

backend •
python-flask-:
5000:5000

```
fixing permissions on existing directory /var/lib/postgresql/data
... ok
creating subdirectories ... ok
selecting dynamic shared memory implementation ... posix
selecting default max_connections ... 100
selecting default shared_buffers ... 128MB
selecting default time zone ... Etc/UTC
creating configuration files ... ok
running bootstrap script ... ok
```

backend
```
* Serving Flask app 'app'
* Debug mode: off
WARNING: This is a development server. Do not use it in a
production deployment. Use a production WSGI server instead.
* Running on all addresses (0.0.0.0)
* Running on http://127.0.0.1:5000
* Running on http://172.18.0.3:5000
Press CTRL+C to quit
```

db
```
performing post-bootstrap initialization ... ok
syncing data to disk ... ok


Success. You can now start the database server using:

    pg_ctl -D /var/lib/postgresql/data -l logfile start
```

Hello from Flask, PostgreSQL from Docker!