FormFlow Manual

Connect to DevServer

```
ssh csdc@10.123.177.51
```

Database

Check PostgreSQL

```
sudo systemctl status postgresql
```

Check Connection from Host

```
ping 10.123.177.51
```

```
Test-NetConnection 10.123.177.51 -Port 5432
```

Check database on linux server

```
sudo -i -u postgres
psql

#list all databases
\l

#connect to database
\c formflowdb

#list all tables
\dt

# Standard queries
SELECT * FROM "AspNetUsers";
SELECT * FROM "Videos";
SELECT * FROM "Analyses";
```

Pose-Detection-Model

Required system packages:

```
sudo apt update
sudo apt install -y ffmpeg python3.11 python3.11-venv
```

- **python3.11** – Required Python runtime for the FastAPI service
- **python3.11-venv** – Enables creation of isolated virtual environments
- **ffmpeg** – Required for video decoding and frame extraction during pose analysis

Create the virtual environment

```
python3.11 -m venv venv
```

Start python virtual environment

```
source venv/bin/activate
```

Install Python Dependencies inside the virtual environment

```
pip install --upgrade pip
pip install fastapi uvicorn opencv-python numpy
```

Main entry point is *main.py*

```
# main.py
(venv) csdc@devserver:~/formflow-ai$ ls
main.py  __pycache__  venv
```

Start the fast API http service

```
uvicorn main:app --host 0.0.0.0 --port 8000
```

Test

```
# Locally on server
curl http://localhost:8000/docs

# From local browser
http://10.123.177.51:8000/docs
```

Leave the virtual environment

```
(venv) csdc@devserver:~/formflow-ai$ deactivate
```

Linux Server

Firewall Rules

```
sudo ufw allow 22
sudo ufw allow 5432
sudo ufw allow 8000
sudo ufw reload
```

Allow external access to postgresql database

Edit `pg_hba.conf`

```
sudo nano /etc/postgresql/<version>/main/pg_hba.conf
```

Add user and IP config

```
# TYPE  DATABASE        USER            ADDRESS                 METHOD

# "local" is for Unix domain socket connections only
local   all             all                                     peer
# IPv4 local connections:
host    all             all             127.0.0.1/32            scram-sha-256
# IPv6 local connections:
host    all             all             ::1/128                 scram-sha-256
# Allow FormFlow backend connections over FH Campus Wien VPN
host    formflowdb      csdc_ff     10.124.0.0/16      scram-sha-256
host    formflowdb      csdc_ff     10.123.0.0/16      scram-sha-256
# Allow replication connections from localhost, by a user with the
# replication privilege.
local   replication     all                                     peer
host    replication     all             127.0.0.1/32            scram-sha-256
host    replication     all             ::1/128                 scram-sha-256
```

.NET Web API

Starting Web API is launching backend on `https://localhost:7110`

```
"profiles": {
  "https": {
    "commandName": "Project",
```

```
      "dotnetRunMessages": true,
      "launchBrowser": true,
      "launchUrl": "swagger",
      "applicationUrl": "https://localhost:7110;http://localhost:5235",
      "environmentVariables": {
        "ASPNETCORE_ENVIRONMENT": "Development"
      }
    }
  }
}
```

After starting the Web API, you can inspect all API endpoints at
`https://localhost:7110/swagger/index.html`
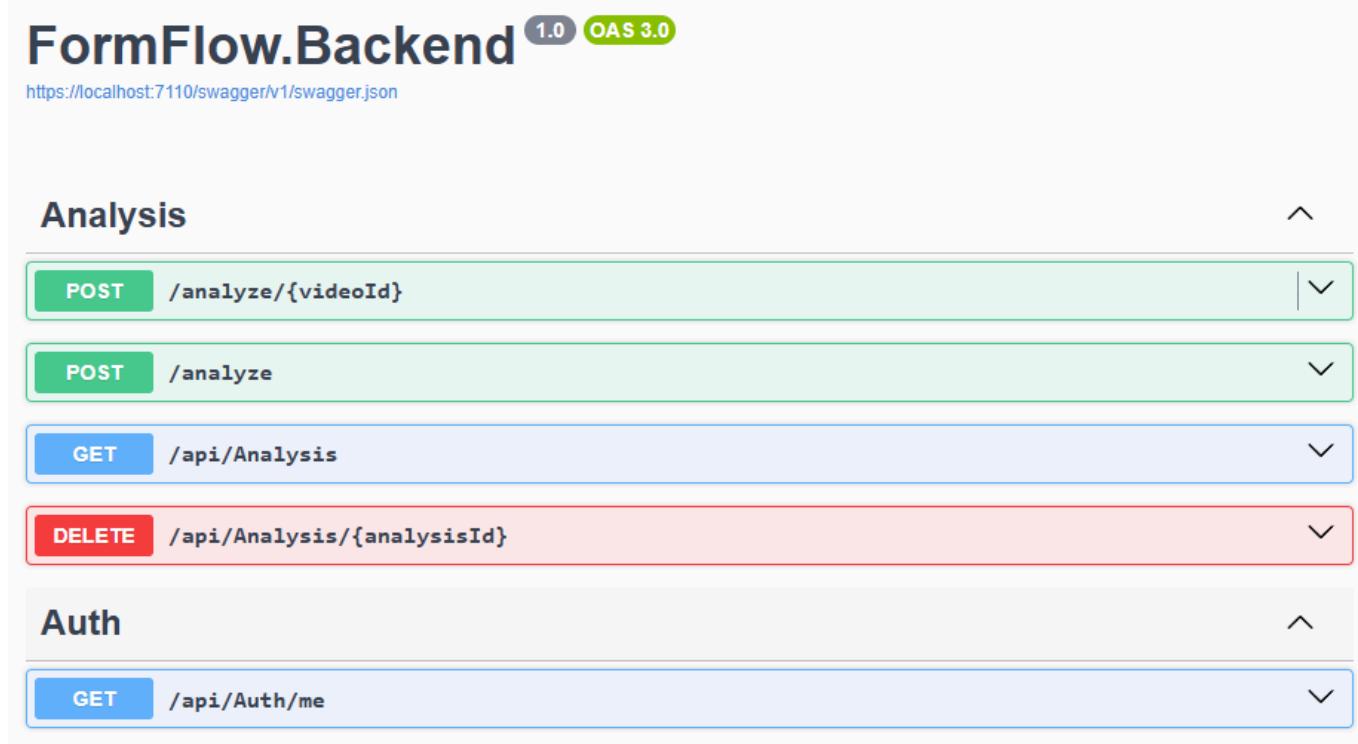
.NET MAUI App

For Windows

Starting the application on the windows machine will open a new window.

Sign in

Email

you@example.com

Password

....

☐ Remember me

Login

Register