

Prompta App - Technical Architecture

1. System Overview

Prompta App is a modular, REST API-based media generation system designed for public communication and citizen engagement. It supports:

- Text to Audio (via gTTS)
- Text to Image (via PIL)
- Text to Video (via MoviePy + gTTS + PIL)

Each endpoint requires authentication and provides downloadable media.

2. Models & Tools Used

- Audio: gTTS (Google Text-to-Speech)
- Image: PIL (Python Imaging Library)
- Video: MoviePy
- Backend: FastAPI
- Frontend: Streamlit
- Auth: Bearer Token-based security

3. Architecture Stack

Frontend: Streamlit app (localhost or cloud deployed)

API Server: FastAPI application

Media Services: Modular scripts per media type

Storage: File-system-based for generated assets

Deployment Ready: Docker-compatible, portable APIs