

Deployment Guide

This guide provides step-by-step instructions to deploy the AI Podcast web app on your local PC, after deployment you should be able to access the web app via the browser.

If you have already deployed this before, please refer to last section for simplified instructions to start the webapp.

Prerequisites

Please make sure you have the following environment installed:

- Node.js
- Python 3.11
- Azure functions core tools

First steps

- Open your terminal, and use git clone to download the repository.
- Download the Required_Files.zip and unzip it.
- Download link: https://aipodcaststorage.blob.core.windows.net/deploy-required-files/Required_Files.zip
- In Required_Files\functionApp\.env , fill in your apis:
 - STABILITY_API_KEY - StabilityAI API (used for image generation)
 - apikey - IBM Watson API key (used for text to speech conversion)
 - url -IBM Watson url (used for text to speech conversion)
 - elevenlabs_api - ElevenLabs API (used for text to speech conversion)
- Copy files from Required_Files folder to paths as instructed.

Build the client files

- Run command in terminal:
 - "cd System-Engineering-Automated-Podcast\client"
 - "npm install"
 - "npm run build"
- Copy all the files from "System-Engineering-Automated-Podcast\client\build" to "System-Eng

Start the server

- Run command in terminal:
 - "cd .."
 - "cd System-Engineering-Automated-Podcast\server"
 - "npm install"
 - "npm start"

The website can be accessed from browser via URL "localhost:8080", you can view and play the episodes from database now.

Start the function app

The server is now up and running, however in order to run the episode generation tasks, you'll need the function app.

Create and activate the virtual environment

- For Windows:
 - Open a new PowerShell window
 - Run the following commands:
 - "cd System-Engineering-Automated-Podcast"
 - "python -m venv functionApp"
 - "cd functionApp"
 - ".\Scripts\Activate.ps1"
- For MacOS/Linux
 - Open a new terminal
 - Run the following commands:
 - "cd System-Engineering-Automated-Podcast"
 - "python -m venv functionApp"
 - "cd functionApp"
 - "source bin/activate"

Install requirements

- Run command in terminal:
 - "pip install azure-functions requests"

Create a local function app

- Run command in terminal:
 - "func init EpisodesGen --worker-runtime python -m v1 "

Create a new function

- Run command in terminal:
 - "cd EpisodesGen"
 - "func new --name GenerateEpisode --language python --template "HTTP trigger" --authlevel
- When prompted whether to overwrite, choose "No"

Copy files and install the requirements

- Copy "ffmpeg.exe" and "ffprobe.exe" from Required_Files to "System-Engineering-Automated-I
- Run command in terminal:
 - "pip install -r requirements.txt"

Start the function App

- Run command in terminal:
 - "func start"

Now the function app is also up and running, you can go back to the browser to generate new episodes.

If you have deployed before and want to start the webapp again

Here is the simplified commands to quickly start the webapp:

- In the terminal, change directory to "\server"
- Run "npm start"
- In the terminal, change directory to "\functionApp\EpisodesGen"
- Run "func start"

Now the web app is available to access!