Citizen AI - Smart Governance Assistant

Citizen AI is an intelligent platform that enhances government-citizen interaction using AI-powered services like IBM Watson, Google Translate, and voice recognition. Built using Flask and SQLite, this full-stack app allows users to post issues, receive real-time sentiment analysis, and track resolution status.

🚀 Features

- AI-powered issue sentiment analysis using IBM Watson
- Multilingual support via Google Translate
- Voice input support with SpeechRecognition
- SQLite backend to store and track issue submissions
- Responsive Bootstrap UI
- REST API to fetch issue data

Tech Stack

- **Backend:** Flask (Python)
- **Frontend:** HTML, Bootstrap
- **Database:** SQLite
- **AI/NLP:** IBM Watson NLU
- **Translation:** Google Translate (via `googletrans`)
- **Voice Input:** Python SpeechRecognition + Google Speech API

Project Structure

```
project/
├── app.py
├── templates/
│   └── index.html
├── static/
│   └── (optional CSS/JS)
├── citizen_ai.db
└── README.md
```

Setup Instructions

1. Clone the repo

```
git clone https://github.com/your_username/citizen-ai.git
cd citizen-ai
```

2. Install dependencies

```
pip install flask ibm-watson googletrans==4.0.0-rc1 SpeechRecognition
```

3. Add your IBM Watson credentials

In `app.py`, replace:

```
'your_ibm_api_key_here'
'your_ibm_service_url_here'
```

with your actual API key and URL.

4. Run the app

```
python app.py
```

Visit `http://127.0.0.1:5000` in your browser.

🏛️API Endpoints

Endpoint	Method	Description
`/`	GET	Home page (form + dashboard)
`/submit`	POST	Submit an issue
`/update/<id>`	POST	Update status of an issue
`/api/issues`	GET	Get all issues as JSON
`/voice-input`	POST	Voice to text capture (mic)

To Do (Optional Enhancements)

 • Add social media data scraping
 • Deploy on Render/IBM Cloud
 • Add user login/authentication
 • Use MongoDB or Firebase for larger scalability

Team

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Live Demo

Add your deployed app URL here:

```
https://citizen-ai-demo.vercel.app
```

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