AI Model for Ticket Resolution (Web App)

This project implements an AI model to classify support tickets into L1, L2, and L3 categories and provide a suggested solution or an escalation report, accessible via a web interface.

Project Structure

- index.html: The frontend web page for interacting with the model.
- ticket_classifier.py: The Python backend server (using Flask) that hosts the AI model.
- requirements.txt: A list of Python packages required to run the project.
- sample_tickets.csv: Sample data used for training the model.
- README.md: This file.

How It Works

The application consists of a simple frontend and a Python backend.

1. **Backend (Flask Server)**: When you run ticket_classifier.py, it first loads the data from sample_tickets.csv, trains a machine learning model, and then starts a web server. This server waits for requests from the frontend.
2. **Frontend (Web Page)**: When you open index.html in your browser, you see an interface to type in a ticket. When you submit a query, the page sends that text to the backend server.
3. **Prediction**: The backend receives the query, uses the trained model to classify it as L1, L2, or L3, and sends the result back to the frontend.
4. **Display**: The frontend displays the classification and suggested solution in the browser.

Setup and Installation

1. **Clone the repository:**
   git clone <repository_url>
   cd <repository_directory>

2. **Create a virtual environment (recommended):**
   python -m venv venv
   source venv/bin/activate # On Windows use `venv\Scripts\activate`

3. **Install the dependencies:**
   pip install -r requirements.txt

How to Run the Web App

Running the application is a two-step process:

Step 1: Start the Backend Server

First, open your terminal, navigate to the project directory, and run the following command. This will train the model and start the server.

```
python ticket_classifier.py
```

You should see output indicating the server is running, something like * Running on http://127.0.0.1:5000. Keep this terminal window open.

Step 2: Open the Web Interface

Now, find the index.html file in your project folder and **open it with your web browser** (you can usually just double-click it).

You can now type a ticket into the text box and click "Classify Ticket" to get a real-time classification from your AI model.