Food-Travel-Ecommerce-AI-App

A simple e-commerce assistant with a FastAPI backend and a Next.js frontend.

This project supports **Python 3.10**.

Backend Setup

We create and activate a virtual environment based on python3 -m venv venv and source venv/bin/actívate and we Install Python dependencies that include pip install -r requirements.txt -r requirements-dev.txt.

In the next step, we create a virtual environment and we install ./setup_env.sh, copy the example environment file, add our Twilio credentials, start the API server and load the variables from the .env file: uvicorn backend.main:app --reload --env-file .env

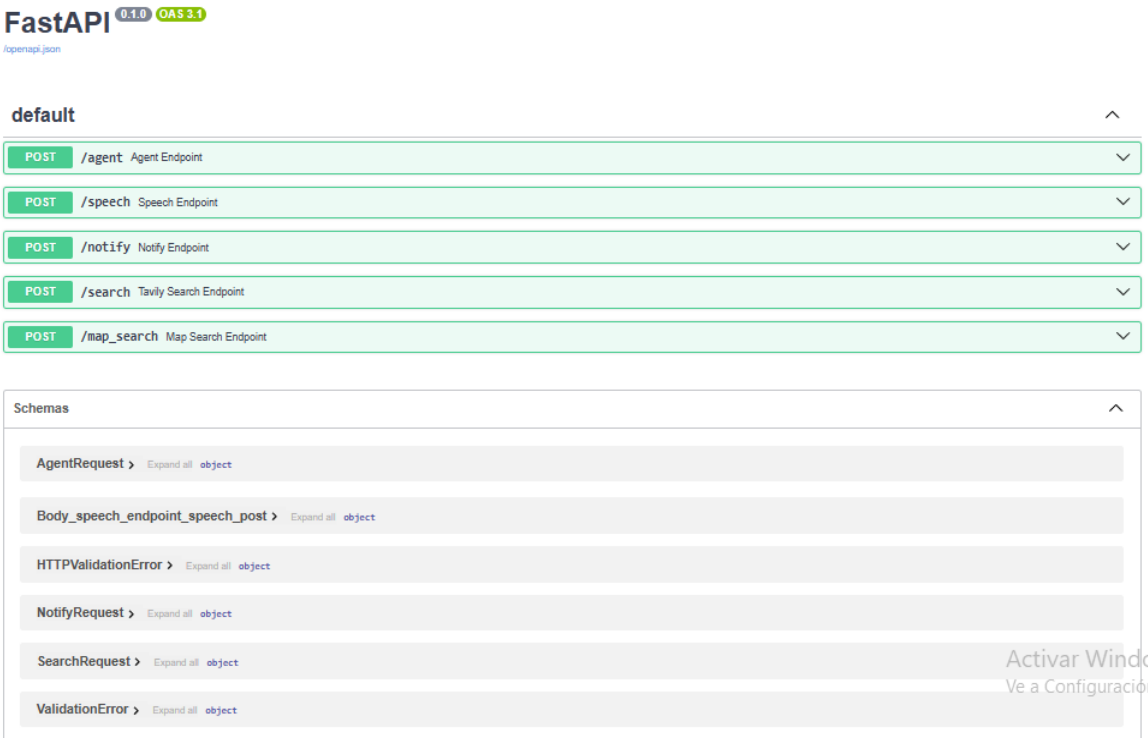
The backend is be available at http://localhost:8000.

The Speech endpoint route accepts an audio file and returns JSON containing the transcribed text and a data URL with spoken audio. Also, the notify route sends an SMS using our Twilio credentials (provide a JSON payload with to and message fields).

```python
import base64
import logging # Added for base64 encoding
from fastapi import FastAPI, UploadFile, File, HTTPException, Form
from fastapi.responses import JSONResponse  # Added JSONResponse
from fastapi.middleware.cors import CORSMiddleware
from pydantic import BaseModel
import re
from backend.groq_agent import ask_agent, transcribe_audio, text_to_speech
from backend.tavily import search_with_answer as tavily_search_with_answer
from backend.location import get_coordinates
from backend.profile_graph import extract_profile
from backend.task_router import route_task
from backend.notifier import send_sms

app = FastAPI()

```

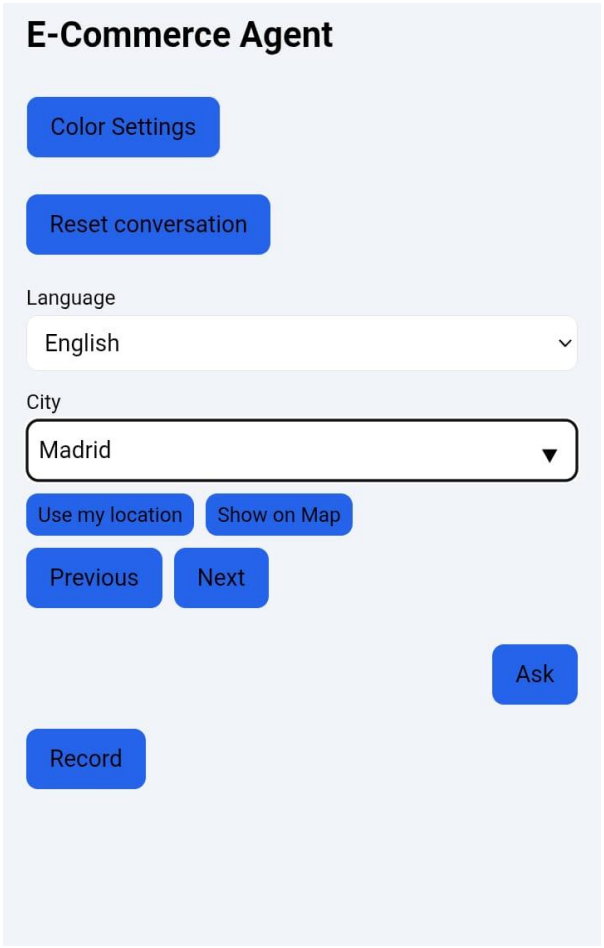


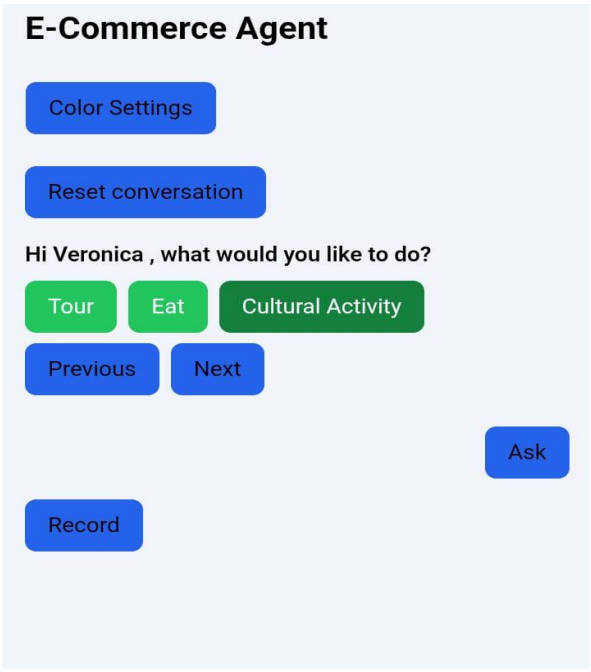
Frontend Setup

The frontend was tested with Node.js 20, reads NEXT_PUBLIC_API_URL to know where the API is running. We create a .env.local file and set this variable to the URL of your backend (defaults to http://localhost:8000). It runs on http://localhost:3000.

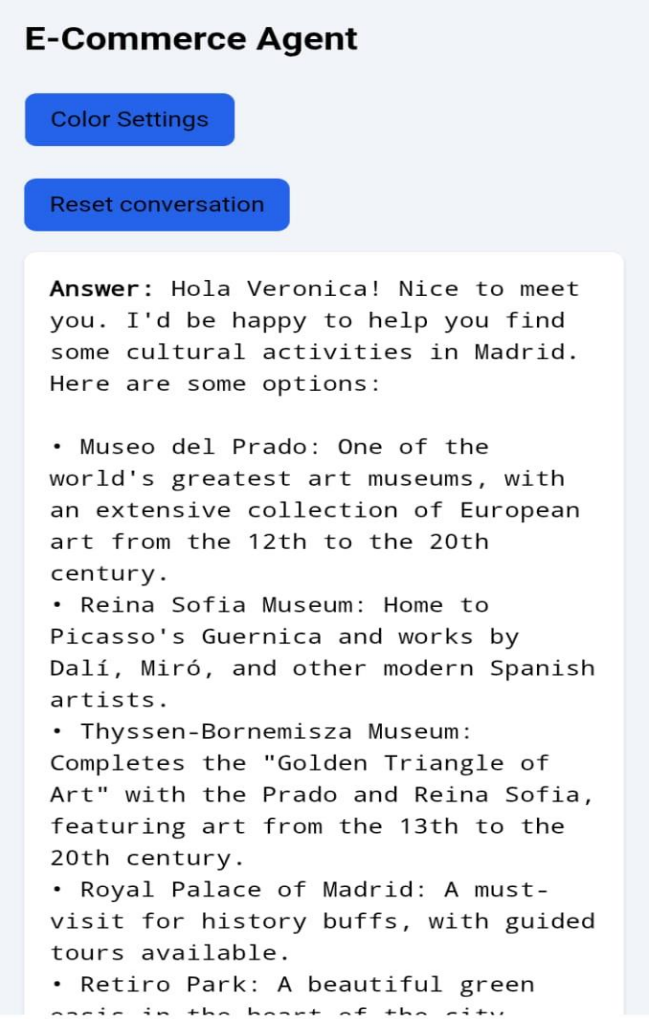
We use result buttons: when the assistant replies with suggested results, each option appears as a button. Clicking one of these buttons sends the text as the next prompt automatically, appending the new interaction to the chat so you can continue the conversation without typing.

The interface also has Color Settings on the home page to open the theme menu. Picking one of the available themes (default, red, green, purple or dark) it changes the color scheme.


E-Commerce Agent
Color Settings
Reset conversation
Language
English
City
Madrid
Use my location
Show on Map
Previous
Next
Ask
Record


E-Commerce Agent
Color Settings
Reset conversation
Hi Veronica , what would you like to do?
Tour
Eat
Cultural Activity
Previous
Next
Ask
Record

If the LLM response itself contains an enumerated or comma-separated list, these items are extracted into a choices field and shown as buttons as well.



Running Tests

The backend tests rely on packages from both requirements.txt and requirements-dev.txt.: *./setup_env.sh*

The backend test suite is runned with pytest from the project root: *pytest*

Frontend tests are located inside the frontend folder and can be executed with: *cd frontend* and *npm test*.