**ADGM-Compliant Corporate Agent**

This project is an intelligent AI-powered legal assistant designed to help users review, validate, and prepare documentation for business incorporation and compliance within the Abu Dhabi Global Market (ADGM) jurisdiction.

The application is built using Python and the Gradio UI framework. It simulates the process of analyzing .docx files, checking them against a predefined incorporation checklist, identifying potential red flags, and generating a summary report along with downloadable "reviewed" documents containing AI-generated comments.

**✨ Features**

* **Document Upload**: Accepts multiple .docx files through a user-friendly drag-and-drop interface.
* **Checklist Verification**: Automatically checks uploaded documents against a standard ADGM company incorporation checklist.
* **Red Flag Detection (Simulated)**: Identifies potential issues in documents based on their filenames (e.g., incorrect jurisdiction, missing clauses).
* **Structured Reporting**: Generates a clear, structured JSON report summarizing the analysis, including missing documents and all identified issues.
* **Commented Document Generation**: Creates new, downloadable .docx files with the analysis and suggestions appended as comments.
* **Interactive UI**: A clean and simple web interface powered by Gradio.

**🛠️ Setup Instructions**

Follow these steps to set up the project environment on your local machine.

**1. Prerequisites**

* **Python 3.8 or higher**: Ensure you have a compatible version of Python installed. You can check your version by running:
* python --version

**2. Clone or Download the Code**

* Place the app.py file in a new project directory.

**3. Install Required Libraries**

* Navigate to your project directory in the terminal and install the necessary Python packages using pip:
* pip install gradio python-docx

**4. Create the Output Directory**

* In the same project directory, create a new folder named reviewed\_docs. This folder is required for the application to save the output files.
* mkdir reviewed\_docs

**🚀 How to Run the Application**

1. **Navigate to the Directory**: Open your terminal and navigate to the folder where you saved app.py.
2. **Run the Python Script**: Execute the following command:
3. python app.py
4. **Access the Web Interface**: The terminal will start a local server and provide a URL, typically http://127.0.0.1:7860. Open this URL in your web browser to access the ADGM Corporate Agent.

**Usage Guide**

1. **Upload Documents**: Drag and drop your .docx files onto the upload area, or click to browse your local files.
2. **Start Analysis**: Once your files are uploaded, click the **"Analyze Documents"** button.
3. **View Results**: The application will process the files and display the results on the right-hand side:
   * **Checklist Verification Summary**: A quick overview of which required documents are present or missing.
   * **Structured Analysis Report**: A detailed JSON object with all findings.
   * **Download Reviewed Documents**: A list of links to download the processed .docx files, which now include the AI-generated comments.

**⚠️ Disclaimer**

This is a demonstration application. The core AI analysis is **simulated** based on document filenames to showcase the workflow and capabilities described in the task sheet. In a real-world implementation, the simulate\_llm\_analysis function would be replaced with actual calls to a large language model (LLM) API, leveraging Retrieval-Augmented Generation (RAG) for legal accuracy.