LexAtlas

Multi-Agentic RAG Assistant for U.S. Regulations

LexAtlas: Legal Intelligence for Real-World Impact

Transform legal complexity into actionable insights

by LexAtlas Team

https://github.com/lexatlas-org

The Problem

? **Simple Question, Complex Answer**
"Where can I launch without violating regulations?"

📖 **Legal Complexity**
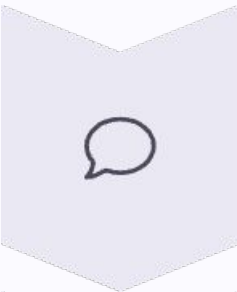Different state laws, fragmented documents

💵 **Current Options**
Spend thousands on legal advice or risk non-compliance

Introducing LexAtlas
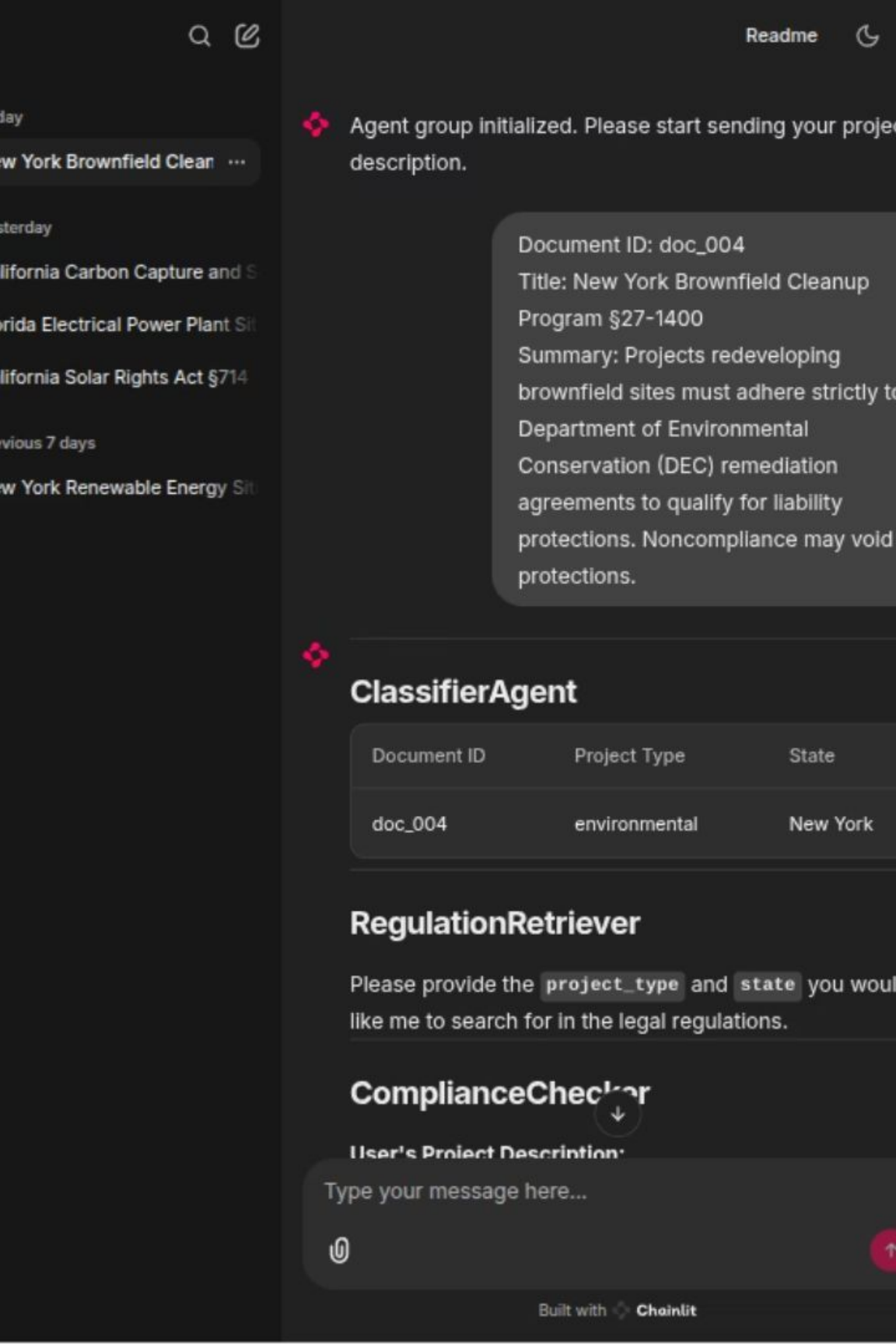
Ask a Question

"I want to install solar panels in Texas"

Instant Analysis

Identifies applicable laws

Actionable Results

Required permits, risks, incentives

Agent group initialized. Please start sending your project description.

Document ID: doc_004
Title: New York Brownfield Cleanup
Program §27-1400
Summary: Projects redeveloping
brownfield sites must adhere strictly to
Department of Environmental
Conservation (DEC) remediation
agreements to qualify for liability
protections. Noncompliance may void
protections.

ClassifierAgent

Document ID	Project Type	State
doc_004	environmental	New York

RegulationRetriever

Please provide the `project_type` and `state` you woul
like me to search for in the legal regulations.

ComplianceChecker

User's Project Description:

Type your message here...

Built with ⬥ Chainlit

How It Works

Classifier Agent
Detects project type and jurisdiction

Retriever Agent
Finds state laws via semantic search

Compliance Agent
Highlights potential risks

Report Agent
Summarizes in plain English

Live Demo: Carbon Capture in Wyoming

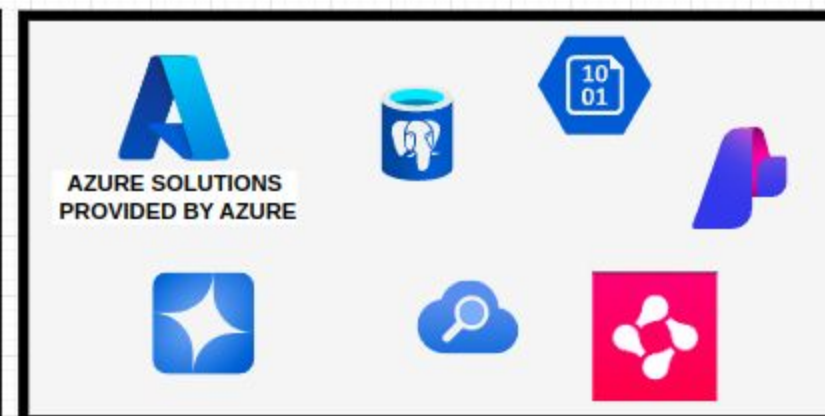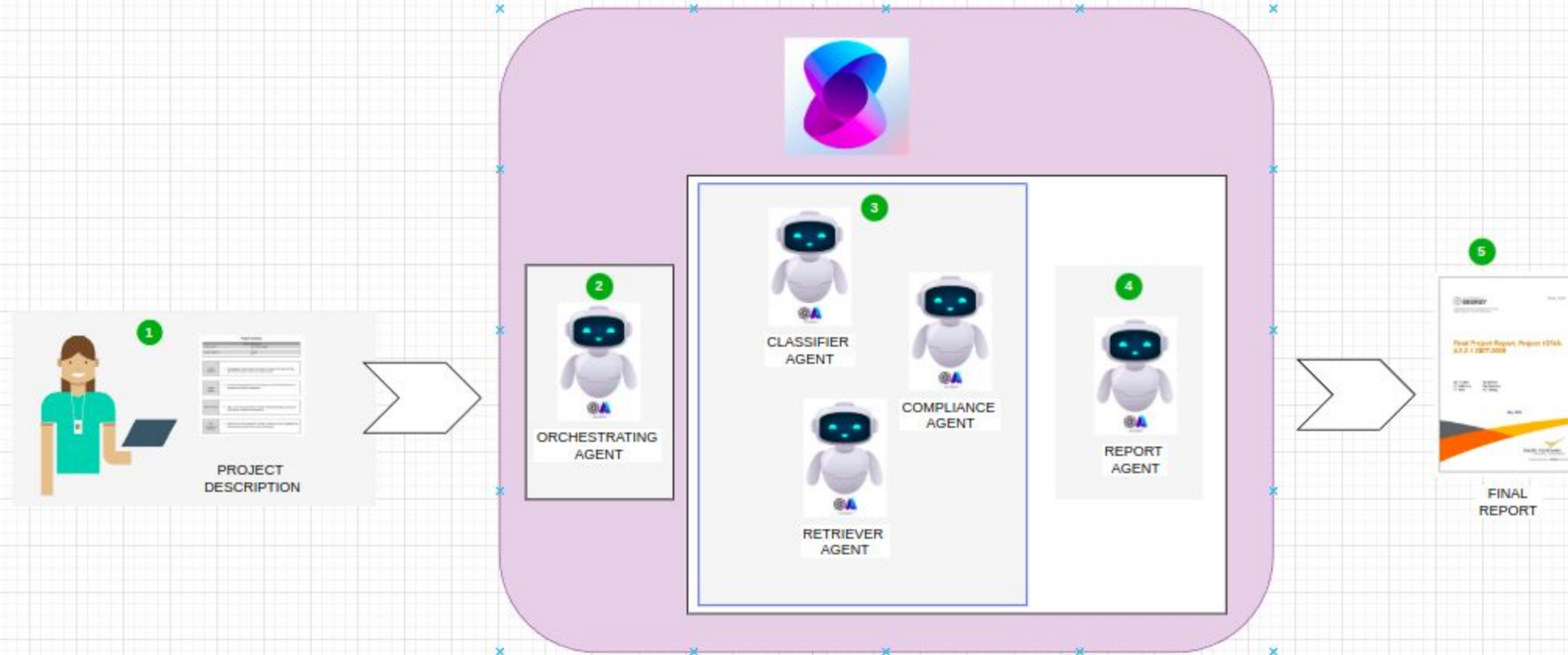## User Input

"Installing direct air capture plant in Wyoming"

Instant Results

Wyoming Environmental Quality Act requirements

Added Value

Identifies incentives under Carbon Capture Program

LexAtlas
Multi-Agentic RAG
Assistant for U.S. Regulations

1. PROJECT DESCRIPTION
2. ORCHESTRATING AGENT
3. CLASSIFIER AGENT
   COMPLIANCE AGENT
   RETRIEVER AGENT
4. REPORT AGENT
5. FINAL REPORT

AZURE AI
AZURE AI FOUNDRY
JAVASCRIPT
python
gradio
LangChain
LangGraph

AZURE SOLUTIONS PROVIDED BY AZURE

What LexAtlas Is Not — and What It Is

⚠️ **Not a Lawyer Replacement**
LexAtlas complements legal professionals but doesn't provide formal legal advice.

💡 **Situational Awareness**
Delivers early insights to help teams understand regulatory landscapes before making decisions.

🛡️ **Reduces Blind Spots**
Identifies potential compliance issues that might otherwise be missed.

🤝 **Better Legal Preparation**
Makes attorney consultations more productive and focused when you do need them.

Technical Architecture

Flexible Foundation

Azure AI Agent SDK, Semantic Kernel

Infrastructure as Code

Automated deployment scripts

Advanced Components

PostgreSQL memory layer, audit logging

Human Oversight

Expert review checkpoints

AI components and data flow

Azure Portal

mg-demo-ma-rg
Resource group

- Search
- Overview
- Activity log
- Access control (IAM)
- Tags
- Resource visualizer
- Events
- Settings

- Diagnose and solve problems
- Resource visualizer
- Search management
  - Indexes
  - Indexers ☆
  - Data sources
  - Aliases
  - Skillsets
  - Debug sessions
- Settings
  - Semantic ranker
  - Knowledge Center
  - Keys
  - Scale
  - Search traffic analytics
  - Identity
  - Networking

+ Create ⚙ Manage view ∨ 🗑 Delete resource group ↻ Refresh ↓ Export to CSV ✎ Open query | Assign tags → Move ∨ Delete ↓ Export template ···

∧ Essentials

Subscription (
Subscription ID
Tags (edit)

Resources

Filter for any

Search explorer ···
lexatlas-search-v21

Index
legal-index-v21

JSON query editor
1 {

- Name ↑
  - lexatlas-ai-service-demo-20
  - lexatlas-ai-service-demo-v21

of 1

Azure   🔍 Search resources, services, and docs (G+/)   🟣 Copilot

Azure services

| + Create a resource | 🔷 Resource groups | Azure AI Foundry | App Services | 💲 Cost Management ... | Azure Database for PostgreSQ... | Azure Database for PostgreSQ... | Azure Cosmos DB for... | All resources | → More services |

Resources

Recent   Favorite

Name	Type	Last Viewed
🔷 mg-demo-ma-hub	Azure AI hub	2 hours ago
🔷 mg-demo-ma-rg	Resource group	2 hours ago
☁ lexatlas-search-v21	Search service	a day ago
🟰 lexatlasstoragev21	Storage account	a day ago
🟰 mgdemomahub4892645402	Storage account	a day ago
🔷 sd-mgarcia-rg-form-recognizer	Resource group	4 days ago
🔷 sd-mgarcia-di-form-recognizer	Document intelligence	a month ago
🔑 Azure subscription 1	Subscription	a month ago
🔑 Subscription 1	Subscription	a month ago
🟰 sdmgarciasaformrecog	Storage account	7 months ago
🔷 sd-mgarcia-ls-form-recognizer	Language	8 months ago
🔷 sd-mgarcia-cs-form-recognizer	Content safety	8 months ago

See all

Navigate

- Access Control (IAM)
- Data migration
- Events
- Storage browser
- Storage Mover
- Partner solutions
- Resource visualizer
- Data storage
  - **Containers**
  - File shares
  - Queues
  - Tables
- Security + networking
- Data management
- Settings

LangChain LangGraph

Tools and Automation

Azure AI Foundry

Memory - Logs

| | client.py | 04-kernel-ma-agents-test.py | app_chat.py | Results: unnamed-query-1 | | Re |

2 rows returned

	id text	createdAt timestamp without time zone
1	8b57acc8-7a94-46cc-b053-a82d5807bd2a	2025-04-30 15:15:24.792
2	06b375...	

34 rows returned

| | id | createdAt timestamp | updat... timest... |

THREADS

5 rows returned

	id text	createdAt timestamp without time zone	updatedAt timestamp without time zone	deletedAt timestamp without time zone	name text	metadata jsonb
1	d52a7fb0-c2f1-46d8-9917-76c983a9ebb8	2025-04-30 15:10:45.545	2025-04-30 15:10:45.54			{"id":"4c3e0e83-1378-4f26-9ce1-e4073e1a77bb","env":"{}","user":...

3 rows returned

	id text	createdAt timestamp without time zone			name text	value double precision	co...
1	ee37f3d9-ca1f-4d87-9215-5c11f5dc6127	2025-04-29 16:14:38.0...			user_feedback	1	me gusto esta respuesta estilo
2	dac7db23-35c6-4076-ac5a-1d5da654c6e5	2025-04-30 15:16:14.952	2025-04-30 15:16:14.952 a85b65360fb3		user_feedback	1	fasdfadsfa
3	256b1667-487e-4711-ad9e-c3586532c6db	2025-04-28 00:42:53.372	2025-04-28 00:42:53.372	null	user_feedback	1	me parece bien la respue...

FEEDBACKS

Unmet - Without the remediation agreements, the project cannot ensure full liability protection during redevelopment.\n\n## Recommended Next Steps\n1. **Initiate Contact with DEC**:\n - Engage with the New York Department of Environmental

STEPS

- public
  - Feedback
    - createdAt : timestamp(3) without time zone
    - updatedAt : timestamp(3) without time zone
    - stepId : text
    - name : text
    - value : double precision
    - comment : text
  - Step
    - id : text
    - createdAt : timestamp(3) without time zone
    - updatedAt : timestamp(3) without time zone
    - parentId : text
    - threadId : text
    - input : text
    - metadata : jsonb
    - name : text
    - output : text
    - type : "StepType"
    - showInput : text
    - isError : boolean
    - startTime : timestamp(3) without time zone
    - endTime : timestamp(3) without time zone
  - Thread
    - id : text
    - createdAt : timestamp(3) without time zone
    - updatedAt : timestamp(3) without time zone
    - deletedAt : timestamp(3) without time zone
    - name : text
    - metadata : jsonb
    - tags : text[]
    - userId : text
  - User
    - id : text
    - createdAt : timestamp(3) without time zone
    - updatedAt : timestamp(3) without time zone
    - metadata : jsonb
    - identifier : text
  - _prisma_migrations

metadata jsonb	name text
...ocation":"http://localhost:8000/"}	admin
	on_chat_start
	Assistant

The Github Repo

lexatlas-infra (Private)

main · 3 Branches · 1 Tag

mariogarcia-ar Update readme.md

- ai_foundry
- .gitignore
- readme.md

README

LEXATLAS-INFRA

Tools for creating the infrastructure

ai_foundry

The ai_foundry folder contains the
based on Azure AI Foundary compor

Project Structure

- **deploy.sh**
  Bash script to automate the prov

- **.env_example**
  Example environment file conta

- **main.bicep**

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github.com/lexatlas-org

lexatlas-org

Overview · Repositories 6 · Projects 1 · Packages · Teams 1 · People 3 · Insights · Settings

LexAtlas

LexAtlas is a multi-agent Retrieval-Augmented Generation (RAG) assistant that simplifies the analysis of U.S. state-level

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README.md

LexAtlas: AI-Powered Legal Assistant for U.S. Regulations

LexAtlas is an intelligent, multi-agent legal assistant designed to help users understand which U.S. state-level laws and regulations apply to their projects. It identifies legal risks, recommends next steps, and generates clear legal-technical summaries based on natural language input.

LexAtlas is a submission for the Microsoft AI Agents Hackathon, showcasing how multi-agent AI systems can simplify legal compliance in complex, regulated environments.

What LexAtlas Does

Users can describe their project—such as an energy deployment, infrastructure plan, or environmental initiative—in natural language. LexAtlas will:

- Identify the project type and its U.S. jurisdiction.
- Retrieve relevant laws and regulations.
- Assess legal or compliance risks.
- Generate a human-readable legal summary.

The system is especially suited for early-stage planning when legal clarity is needed before contacting regulators or legal counsel.

Example

Packages · Teams 1 · People 3 · Insi

All

Search repositories

6 repositories

lexatlas-langchain Public
MIT License · 0 · 0 · 0 · 0 · Updated 4 hours ago

.github Public
0 · 0 · 0 · 0 · Updated 4 hours ago

lexatlas-frontend Private
TypeScript · 0 · 0 · 0 · 0 · Updated 11 hours ago

lexatlas-api Public
Python · 0 · 0 · 0 · 0 · Updated 3 days ago

lexatlas-infra Private
Bicep · 0 · 0 · 0 · 0 · Updated 4 days ago

lexatlas-admin Public
0 · 0 · 0 · 0 · Updated last week