

Executive Summary

ComplianceNavigator is an agentic AI application designed to guide tech entrepreneurs through complex, country-specific regulatory landscapes.

Agentic Application Concept

- Autonomous Intake Agent: Parses user descriptions of the startup (industry, activities, country) and formulates targeted research queries.
- Regulation Scout Agent: Connects to official APIs (e.g., EU Open Data Portal) and web sources to fetch up-to-date statutes, licenses, and guidelines.
- Policy Matcher Agent: Uses LlamaIndex and vector search to cross-reference retrieved regulations against startup activities, identifying compliance gaps.
- Action Planner Agent: Synthesizes compliance gaps into actionable recommendations, drafts initial policy outlines or process maps.
- Monitoring & Alerting Agent: Periodically re-runs the scout and matcher pipelines to detect new regulatory updates and alerts the user.

Key Agentic Features

1. Dynamic Agent Orchestration – Leverages CrewAI (or LangGraph) to coordinate multiple specialized agents in a planning loop.
2. Real-Time Regulatory Feed Integration – Integrates with official regulatory APIs (GDPR, Fintech sandbox registries, local government portals).
3. Natural Language Understanding & Synthesis – Applies advanced LLM prompting, chain-of-thought planning, and retrieval-augmented generation.
4. Automated Compliance Toolkit – From gap identification to policy drafting and ticket creation (Slack, Jira, Notion), ComplianceNavigator automates the workflow.
5. Continuous Learning & Adaptation – Monitors user feedback and compliance outcomes to refine matching algorithms and suggest relevant resources.

Architecture & Technology Stack

- Agent Framework: CrewAI Planner or LangGraph orchestration for multi-agent workflows
- Document Comprehension: LlamaIndex / Pinecone for vector store and semantic search
- LLM Core: Gemini API for reasoning and generation
- API Orchestration: Custom connectors to regulatory APIs (e.g., EU Open Data Portal, local government registries); Puppeteer-based web scraping
- Communication & Task Automation: Slack API for real-time notifications and threads; Jira and Notion APIs for automatic ticket creation
- Monitoring & Scheduling: Celery with RabbitMQ for periodic agent execution; Redis for state management and caching

Workflow & Agent Orchestration

1. User Interaction: User submits a prompt via the chat interface, e.g., “I’m launching a telemedicine platform in Germany. What licenses do I need?”
2. Intake Agent: Parses the request to extract keywords (e.g., “telemedicine,” “Germany”) and formulates subqueries such as “telemedicine regulations Germany”.
3. Regulation Scout Agent: Leverages API connectors and headless browsing to fetch relevant statutes, guidelines, and policy documents.
4. Policy Matcher Agent: Embeds both user-provided descriptions and regulation texts via LlamaIndex; computes semantic similarity to identify applicable rules.
5. Action Planner Agent: Synthesizes identified gaps into an actionable compliance plan—outlining required licenses, drafting initial policy outlines.
6. Delivery & Automation: Presents the compliance report in the chat interface and, if authorized, spins up Slack threads and Jira/Notion tickets.
7. Monitoring & Alerting Agent: Schedules weekly or user-configured runs to re-scan regulatory sources for updates (e.g., new laws, amendments).

Benefits & Differentiators

- True Agentic Automation: Agents autonomously plan, execute, and refine each step without manual orchestration, unlike static compliance checkers.
- End-to-End Compliance Flow: From initial research through policy drafting and task creation, the system closes the loop, reducing manual effort.
- Modular & Extensible: Easily extend agent capabilities to new verticals (Fintech, Crypto, Healthtech) and add support for additional countries.
- Continuous Regulatory Intelligence: Ongoing monitoring ensures startups receive timely alerts on critical changes, minimizing compliance risk.
- Leverage Gemini Strengths: Utilizing your existing Gemini API investment for reasoning, fine-tuned prompt chaining, and cost efficiency.

One-Day AI-Driven MVP Sprint

To demonstrate ComplianceNavigator’s core value within 24 hours using Gemini and Cursor, we’ll run an intensive AI-powered sprint.

Hour 0–1: Kickoff & Scope Definition

- Finalize target use case (e.g., telemedicine Germany)
- Define minimal agent set: Intake, Scout, Matcher

Hour 1–3: Rapid Agent Prototyping

- Use CrewAI templates to scaffold Intake & Scout agents
- Leverage Gemini API for prompt-based regulation retrieval
- Initialize Cursor for efficient embedding storage and semantic retrieval of regulatory texts

Hour 3–5: Core Orchestration & Testing

- Chain agents with LangGraph; run end-to-end query using Cursor-backed LlamaIndex
- Validate classification of one startup scenario

Hour 5–7: UI & Automation Demo

- Deploy simple chat interface (HTML + JS stub) hooked to Gemini
- Trigger Slack message or print compliance snapshot via action planner

Hour 7–9: Refinement & QA

- Iterate Gemini prompts; tune Cursor retrieval parameters to improve precision of Policy Matcher
- Smoke test Monitoring alert for one regulation update

Hour 9–12: Packaging & Presentation

- Bundle code; prepare slide deck with demo screenshots
- Rehearse live walkthrough

Hour 12–24: Feedback & Iteration

- Incorporate stakeholder feedback from demo
- Finalize MVP repository, ensure Cursor index is persisted, and deploy to staging

Development Roadmap