**AI-Powered Tax Compliance Platform**

**Core Project: Intelligent Tax Assistant with Multi-Agent Architecture**

Building a comprehensive tax platform using **LangGraph** that combines multiple AI agents:

* **Tax Analysis Agent**: Uses RAG to analyze tax documents and provide personalized advice
* **Compliance Monitoring Agent**: Tracks changes in tax laws and regulations
* **Calculation Agent**: Performs complex tax calculations with audit trails

**A diagram of a company's company's company

AI-generated content may be incorrect.**

**Progress Report**

***13-sept-2025***

***1. Modular Architecture Implementation***

* ***Refactored single main.py****into proper modular structure with separate directories*
* ***Implemented separation of concerns****following FastAPI best practices*

***2. Tax Calculator Agent Development***

* ***Extracted tax calculation logic****into dedicated calculator.py module*
* ***Built TaxCalculatorAgent class****with LangChain integration for AI-powered insights*
* ***Implemented dual tax regime support****(New & Old) with precise slab calculations*

***3. AWS Bedrock Integration Setup***

* ***Configured ChatBedrockConverse****with Claude 3 Haiku model for cost-effective calculations*
* ***Implemented error handling****with fallback mechanisms for AI service failures*

***4.FastAPI Router Architecture***

* ***Created dedicated API routes****in app/api/v1/tax\_routes.py for clean endpoint management*

***5. Pydantic Data Models***

* ***Developed structured data models****in app/models/tax\_models.py*
* ***Created TaxData, TaxCalculationResult, and TaxBreakdown****models for type safety*

***6. Docker Configuration***

* ***Updated Dockerfile****to support modular app structure with COPY app/ ./app/*