IDEATION PHASE

**Project Overview:**

This project leverages IBM Granite AI models with a Gradio interface to provide two major functionalities:

1. City Analysis – Gives insights into a city’s crime index, safety statistics, and accident rates.

2. Citizen Services – Assists citizens by answering queries about public services, government policies, and civic issues.

The system is designed as an AI-powered civic assistant that enhances accessibility of public information for citizens and government stakeholders.

**Objectives:**

Provide citizens with clear, AI-driven insights about their cities.

Offer a simple interface for querying government-related services and policies.Serve as a prototype platform to explore AI integration in civic governance.

**Key Features:**

City Analysis:

Input: City Name

Output: Analysis of:

Crime index & safety statistics

Accident rates & traffic safety information

Citizen Services:

Input: Citizen Query

Output:

AI-generated response about:

Government services

Civic policies

Public issues

**Technical Features:**

Uses IBM Granite-3.2 Instruct Model for natural language understanding and generation.

Runs on CPU/GPU depending on availability.

Provides a user-friendly Gradio web app with tabs for different use cases.

**Technology Stack:**

Programming Language: Python

Libraries:

torch → Model execution on CPU/GPU

transformers → Model & tokenizer loading (Hugging Face)

gradio → Web UI for interaction

Model: ibm-granite/granite-3.2-2b-instruct

Deployment: Local hosting with optional share=True (Gradio public link)

**Functional Workflow:**

Step 1: User Interaction

Users access the app via browser.

Two tabs available: City Analysis & Citizen Services.

Step 2: Input & Processing

User provides city name / citizen query.

Input is converted into a prompt.

Prompt is fed into the Granite AI model.

Step 3: AI Response Generation

Model generates a text response.

Post-processed response (cleaned & trimmed) is displayed in the UI.

**Target Users:**

Citizens seeking public service information.

Government officials for monitoring public concerns.

Researchers/Students exploring AI in governance.

**Benefits:**

Improves citizen engagement with governance.

Provides quick insights into urban safety and public policies.

Acts as a prototype for AI-driven governance platforms.

**Limitations (Current Ideation):**

AI responses may not always reflect real-time or accurate government data.

City statistics are generated based on model knowledge, not live databases.

Currently supports only text-based queries.

**Future Enhancements:**

Integration with real-time government databases & APIs.

Support for multiple languages.

Enhanced data visualization dashboards (charts, maps).

Mobile app integration for citizen accessibility.