AI-Powered Government Scheme Assistant

1. Project Title

AI-Powered Government Scheme Assistant Using Retrieval-Augmented Generation (RAG)

2. Student Details

Name: M Umme Kulsum
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3. SDG Alignment

- Primary SDG: SDG 10 – Reduced Inequalities

- Secondary SDG: SDG 16 – Peace, Justice & Strong Institutions

This project improves access to government welfare information, promoting transparency, inclusion, and equal access to public services.

4. Problem Statement

Government welfare schemes are created to support citizens, but many eligible people fail to benefit due to lack of awareness, complex language, and scattered information sources. Users often struggle to understand whether they are eligible, what benefits are offered, and how to apply. Existing information is spread across multiple websites and written in technical terms, making it difficult for common users.

Problem Statement:
How might we use AI to simplify access to government scheme information so that citizens can make informed and timely decisions?

5. Target Users

- General citizens and students

- Rural and semi-urban populations

- Low-income and economically weaker sections

- First-time applicants for government schemes

6. AI Solution Overview

The project is a Government Scheme Assistant developed using Streamlit and Retrieval-Augmented Generation (RAG). Users can enter any government scheme name into the system. The assistant first searches a local knowledge base, and if the scheme is not available, it retrieves information from trusted online sources such as Wikipedia. AI then restructures the retrieved information into a simple and uniform format.

Output Structure:

1. Scheme Name

2. Eligibility

3. Benefits

4. How to Apply

5. Notes (Additional Information)

This structured approach ensures clarity and consistency across all schemes.

7. Role of AI in the Project

AI is used for information retrieval, summarization of unstructured content, and structuring data into meaningful sections. The system also enables conversational interaction with users. Retrieval-Augmented Generation (RAG) is applied to reduce hallucinations and ensure that responses are based on reliable retrieved information.

8. Prototype Description

- **Frontend:** Stream lit web application

- **Backend:** Python

- **AI Workflow:** Local dataset lookup, online knowledge retrieval, and AI-based restructuring

The prototype demonstrates how AI can function as an effective awareness and decision-support tool.

9. Responsible AI Considerations

The project follows responsible AI principles by ensuring transparency in information sourcing, avoiding biased filtering, and not collecting any personal user data. All information provided is advisory in nature, and users are encouraged to verify details through official government portals.

10. Expected Impact

The solution improves awareness of government welfare schemes, reduces dependence on intermediaries, saves time and effort for citizens, and supports inclusive access to public services. It also aligns with digital governance and sustainability goals.

11. Conclusion

This project demonstrates the responsible application of AI to address real societal challenges. By combining conversational AI with retrieval-based techniques, the Government Scheme Assistant makes welfare information accessible, understandable, and actionable, thereby supporting sustainability, inclusion, and good governance.