Citizen-Centric Government Scheme Discovery and Complaint Resolution using AI and Semantic Search

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Abstract: *Government welfare schemes in India are designed to support underprivileged citizens by offering financial aid, healthcare benefits, educational assistance, agricultural subsidies, and more. Despite their importance, a significant portion of the population remains unaware of the schemes they qualify for. The primary reason for this gap is the fragmented dissemination of scheme-related information and the complexity of eligibility criteria. To address this challenge, the Government Scheme Tracker has been developed as a comprehensive digital platform that simplifies access to government welfare programs. This solution empowers citizens by allowing them to discover and apply for schemes that they are eligible for, based on their socio-economic profile. Users can register via a mobile or web application built with Flutter, and input personal data including age, income, occupation, education level, and location. Once the data is submitted, it is processed by a backend system powered by FastAPI. An integrated AI/ML engine analyzes the information and recommends the most relevant schemes. The recommendation engine utilizes semantic search (Cosine Similarity via the All-MiniLM-L6-v2 model) and keyword overlapping techniques to ensure accurate and personalize matching.*

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