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AI-Driven Welfare Scheme Assistance and Management System

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ABSTRACT :

The AI-Driven Welfare Scheme Assistance and Management System is an intelligent platform designed to bridge the gap between government welfare schemes and eligible beneficiaries. This system leverages artificial intelligence to analyze user data such as age, income, occupation, location, and personal circumstances, in order to recommend the most suitable welfare schemes to individuals. It simplifies the application process by providing an automated eligibility checker, intelligent form filling, and document verification. A built-in AI-powered chatbot offers real-time support, addressing user queries and guiding them through the system in multiple languages. The platform also includes a dashboard for users to track application status and for administrators to manage schemes and view analytics. By automating and personalizing the interaction between citizens and welfare services, this system enhances accessibility, reduces delays, and ensures that support reaches the right people efficiently. Overall, the project aims to create a smarter, transparent, and user-friendly approach to public welfare distribution.

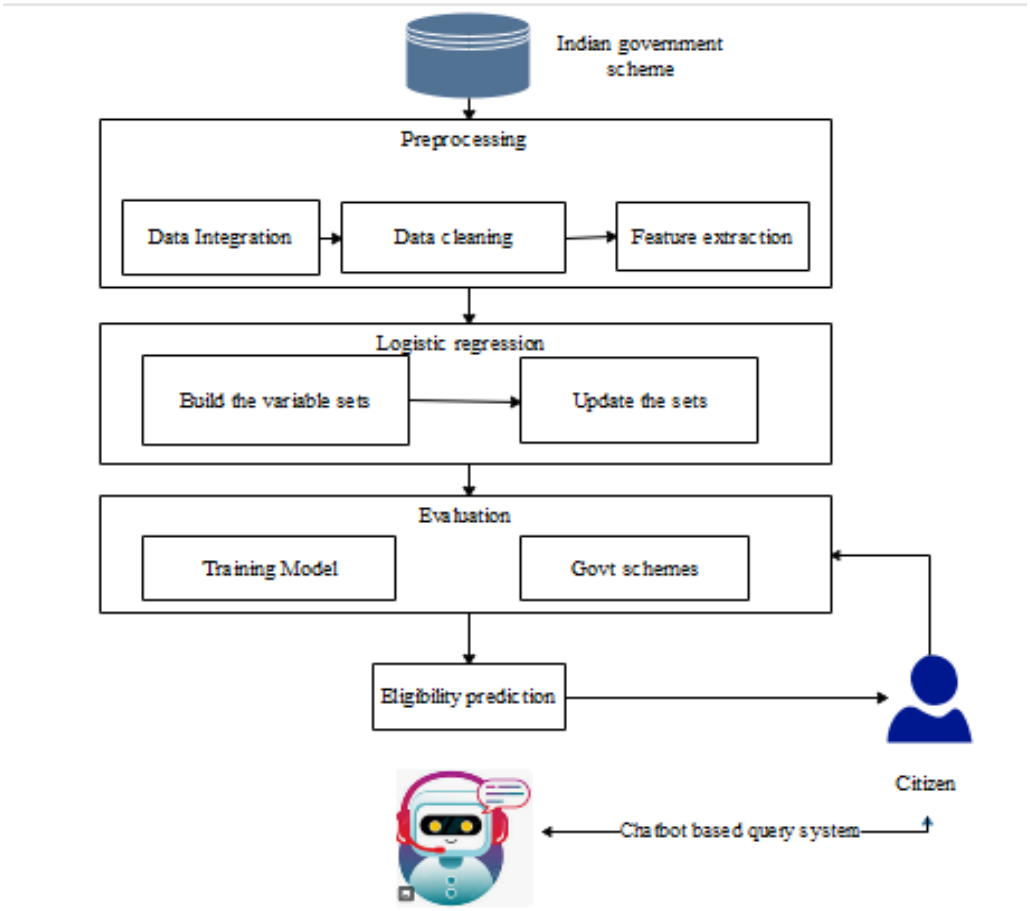
Keywords: Artificial Intelligence (AI),Welfare Scheme Management ,Scheme Recommendation System ,Eligibility Checker ,E-Governance, Citizen Services

I.INTRODUCTION :

In a country with diverse demographics and numerous social welfare initiatives, accessing the right government scheme can be a challenging task for many citizens. Lack of awareness, complicated application processes, and eligibility confusion often prevent the benefits of welfare programs from reaching the intended individuals. Traditional manual systems are not efficient enough to handle the large-scale distribution and monitoring of such schemes .To address these issues, the integration of Artificial Intelligence (AI) in public service delivery presents a promising solution. The AI-Driven Welfare Scheme Assistance and Management System is designed to simplify and automate the process of identifying, applying for, and managing welfare schemes. By using AI algorithms, the system intelligently analyzes user information and recommends suitable schemes based on their eligibility and needs.Furthermore, features like automated application assistance, AI-powered chat support, and real-time status tracking make the platform user-friendly and accessible to people from various backgrounds, including those in rural and underserved areas. The system also empowers government officials with data-driven insights to monitor scheme usage and effectiveness, promoting transparency and efficiency in public welfare management.

II.PROPOSED SYSTEM :

The proposed AI-Driven Welfare Scheme Assistance and Management System is a smart, user-centric platform designed to enhance the accessibility and efficiency of welfare scheme delivery. The system uses Artificial Intelligence to assist users in identifying suitable government welfare schemes based on their personal, financial, and demographic details.The core functionality of the system revolves around a recommendation engine that intelligently matches users with schemes they are eligible for. This engine processes inputs such as age, gender, income, occupation, disability status, location, and family size to suggest the most relevant schemes. Additionally, an eligibility checker module cross-verifies user data with the official criteria of various schemes to confirm eligibility before application.A multilingual AI-powered chatbot is integrated to guide users through the platform, answer queries, and assist with application procedures. The system also includes features like automated form filling, document upload and verification using Optical Character Recognition (OCR), and real-time application tracking.For administrators, the platform provides a dashboard to manage schemes, process applications, and monitor performance through data analytics and reports. This enables better decision-making and transparency in scheme distribution.Overall, the proposed system aims to reduce manual intervention, minimize errors, and ensure that government assistance is delivered in a timely, accurate, and accessible manner, especially to marginalized and remote communities.



MODULES:

FRAMEWORK CONSTRUCTION

- The framework of the proposed system consists of four core modules: Apply Government Scheme, Machine Learning Algorithm, Scheme Eligibility Prediction, and Chatbot Query System.
- Users enter their personal information through the application module, which is then processed by machine learning algorithms to predict eligible schemes.
- The chatbot module enables users to interact in regional languages for queries and support. Together, these components create an intelligent, accessible, and user-friendly platform for efficient scheme delivery and grievance redressal.

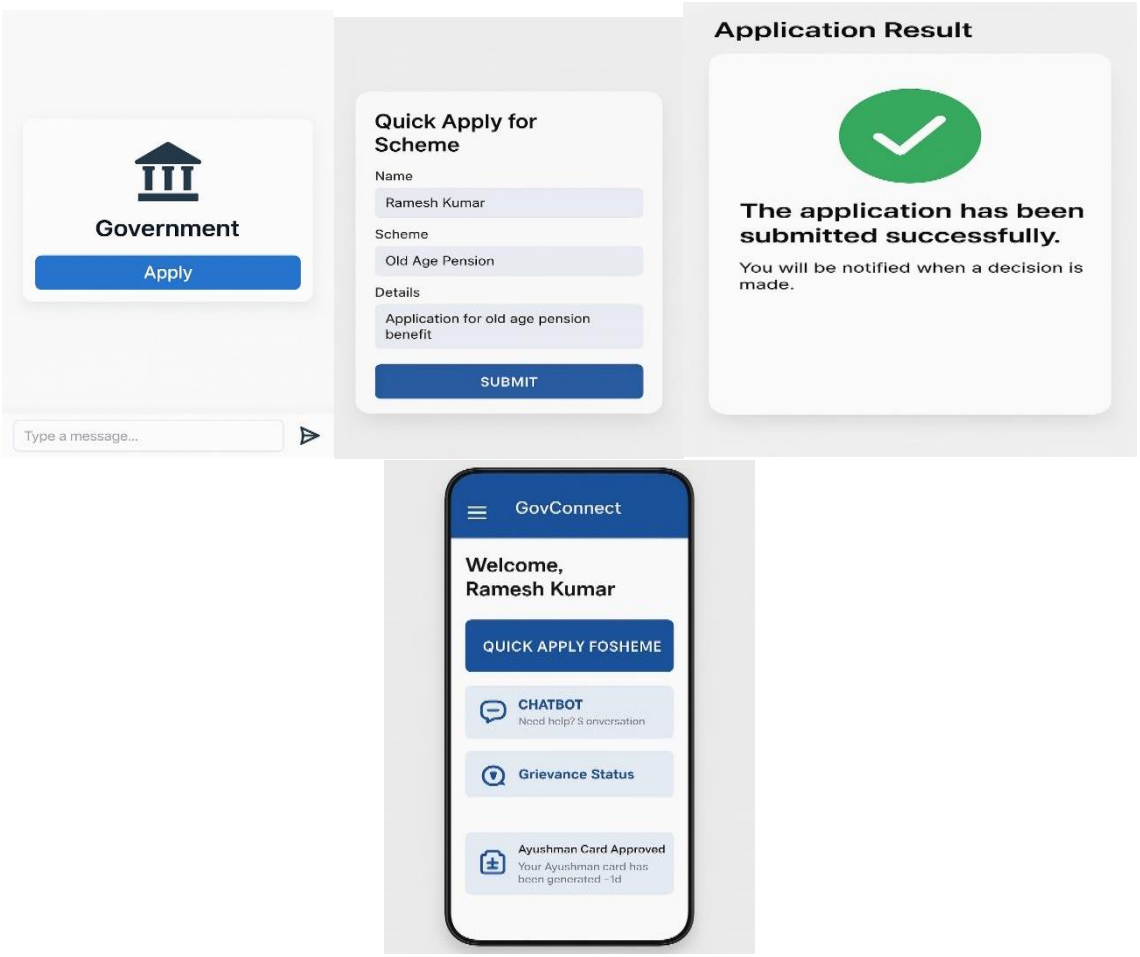
APPLY GOVERNMENT SCHEME

- This module serves as the entry point for users to register and apply for government welfare schemes.
- Citizens are required to input their personal details such as name, age, gender, income level, caste, disability status, and geographical location.
- The module stores this data securely in the backend for further processing by the ML algorithm.
- It provides a simple and intuitive interface that guides the user through the application process, reducing confusion and improving accessibility, especially for first-time users.

MACHINE LEARNING ALGORITHM

- At the heart of the system lies the Machine Learning algorithm that processes the user's input to determine their eligibility for various government schemes.
- The algorithm is trained on historical data and eligibility rules of schemes and uses classifiers Logistic regression to predict suitable schemes.
- This data-driven module ensures personalized recommendations based on multiple criteria, enabling faster and more accurate scheme mapping for each individual.

RESULT



Future Enhancement:

The AI-Driven Welfare Scheme Assistance and Management System holds great potential for further development and scalability. In the future, a dedicated mobile application can be introduced to improve accessibility, especially for users in rural or low-connectivity areas. Voice assistant integration in regional languages can further enhance usability for illiterate or visually impaired individuals. Incorporating real-time biometric authentication using systems like Aadhaar will improve security and ensure accurate user verification. Additionally, blockchain technology can be utilized to ensure secure and tamper-proof document verification. The recommendation engine can be upgraded with advanced machine learning models for more precise and personalized scheme suggestions. Geo-targeted notifications can help users stay informed about newly launched local schemes relevant to them. Integration with other government portals such as DigiLocker and NPCI can streamline the verification process and enhance data consistency.

CONCLUSION :

The AI-Driven Welfare Scheme Assistance and Management System represents a significant step forward in the digitization and modernization of public welfare services. By leveraging artificial intelligence and automation, the system effectively bridges the gap between government welfare schemes and the citizens who need them most. It simplifies the process of scheme discovery, eligibility verification, and application submission, making it easier for users—especially those in rural or underprivileged areas—to access government support.Additionally, the integration of features like an AI chatbot, automated document verification, and a real-time tracking dashboard ensures a smooth and transparent user experience. For government administrators, the system offers valuable insights through analytics and reporting, enabling more efficient scheme management and better policy decisions.

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