

AI for Bharat Hackathon

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Team Name : CodeKarma

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Problem Statement : Making Government Schemes Understandable for Every Citizen



Brief about the Idea:

NyaySetu AI is a multilingual AI-powered assistant that simplifies access to government schemes and legal information.

The platform allows users to:

- Ask questions in their preferred language
- Receive simplified explanations of schemes
- Check eligibility through guided inputs
- View required documents
- Get scheme recommendations based on their profile



Static portals cannot understand user intent or personalize recommendations. AI enables semantic understanding of queries and intelligent scheme matching based on user profile.

◆ How it is different:

- Existing portals provide static information
- Most platforms are English-dominant
- No intelligent matching of schemes
- NyaySetu AI uses semantic similarity matching instead of simple keyword search Instead of keyword matching, we use vector-based similarity scoring to match user intent with scheme descriptions, enabling accurate and context-aware recommendations.
- Provides personalized recommendations instead of generic information
- Designed specifically for multilingual Bharat users

◆ How it solves the problem:

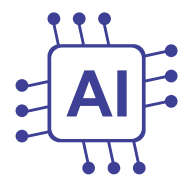
- User enters query or profile details
- AI analyzes user intent
- System matches relevant schemes
- Explanation is simplified
 - Eligibility is checked
 - Required documents are displayed

This reduces confusion and dependency on intermediaries.

◆ USP:

- AI-driven semantic scheme matching
- Multilingual support for Bharat users
- Personalized eligibility recommendation
- Microservice-based scalable system
- Designed for low digital literacy users

List of Features offered by the solution :



- AI-based scheme recommendation engine



- Eligibility checking module



- Simplified scheme explanation



- Required document checklist



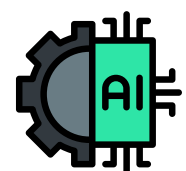
- Multilingual translation support



- Voice-based interaction

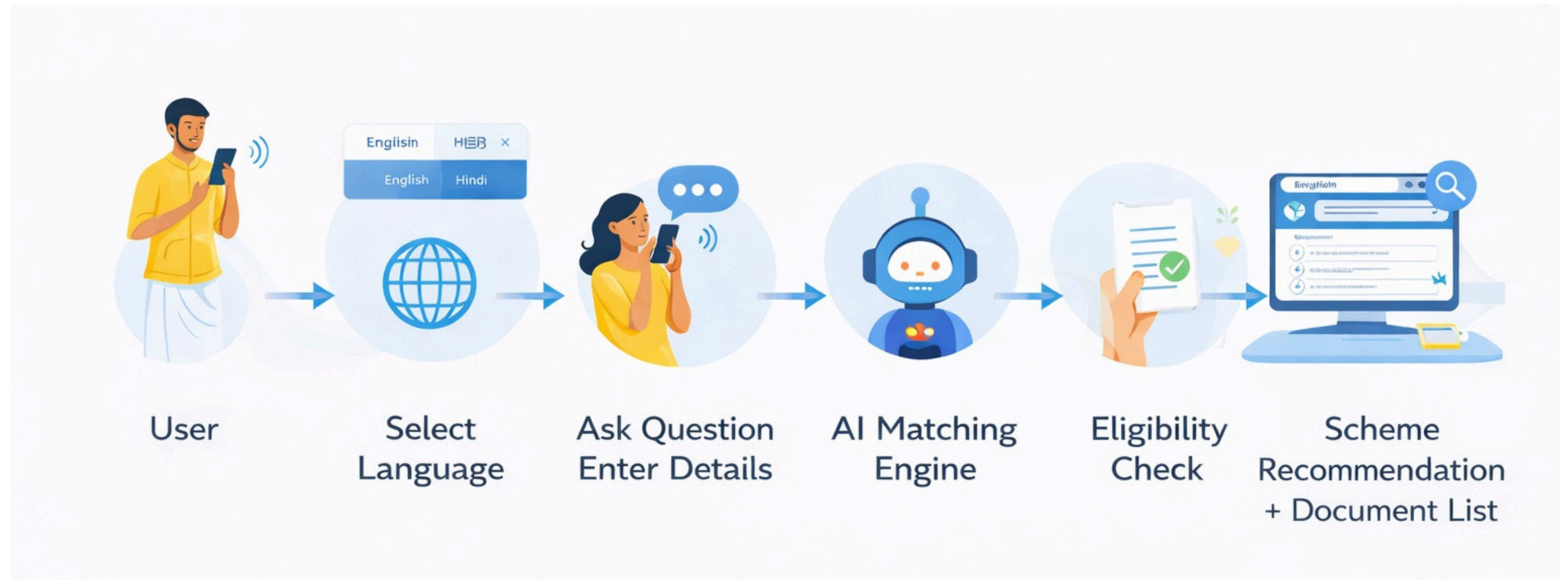
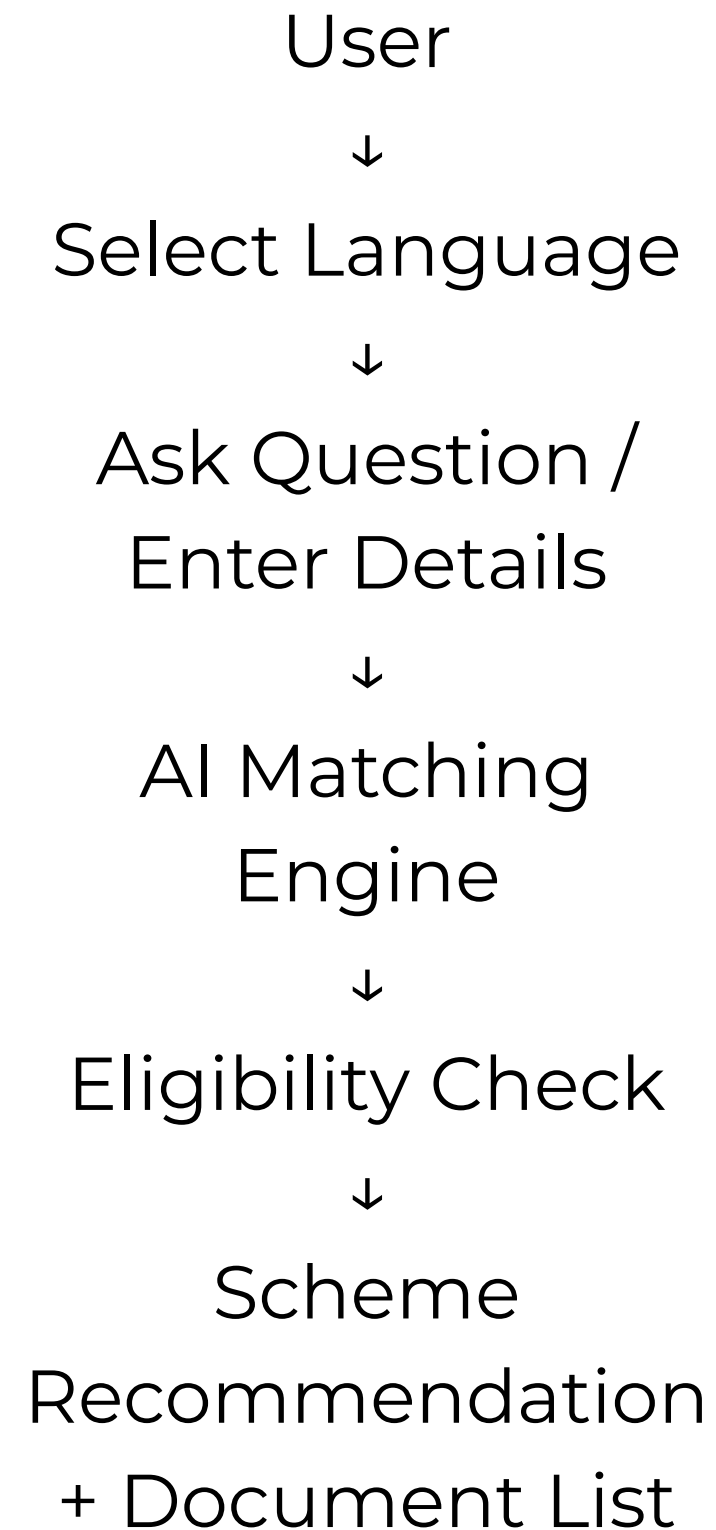


- Clean web-based interface



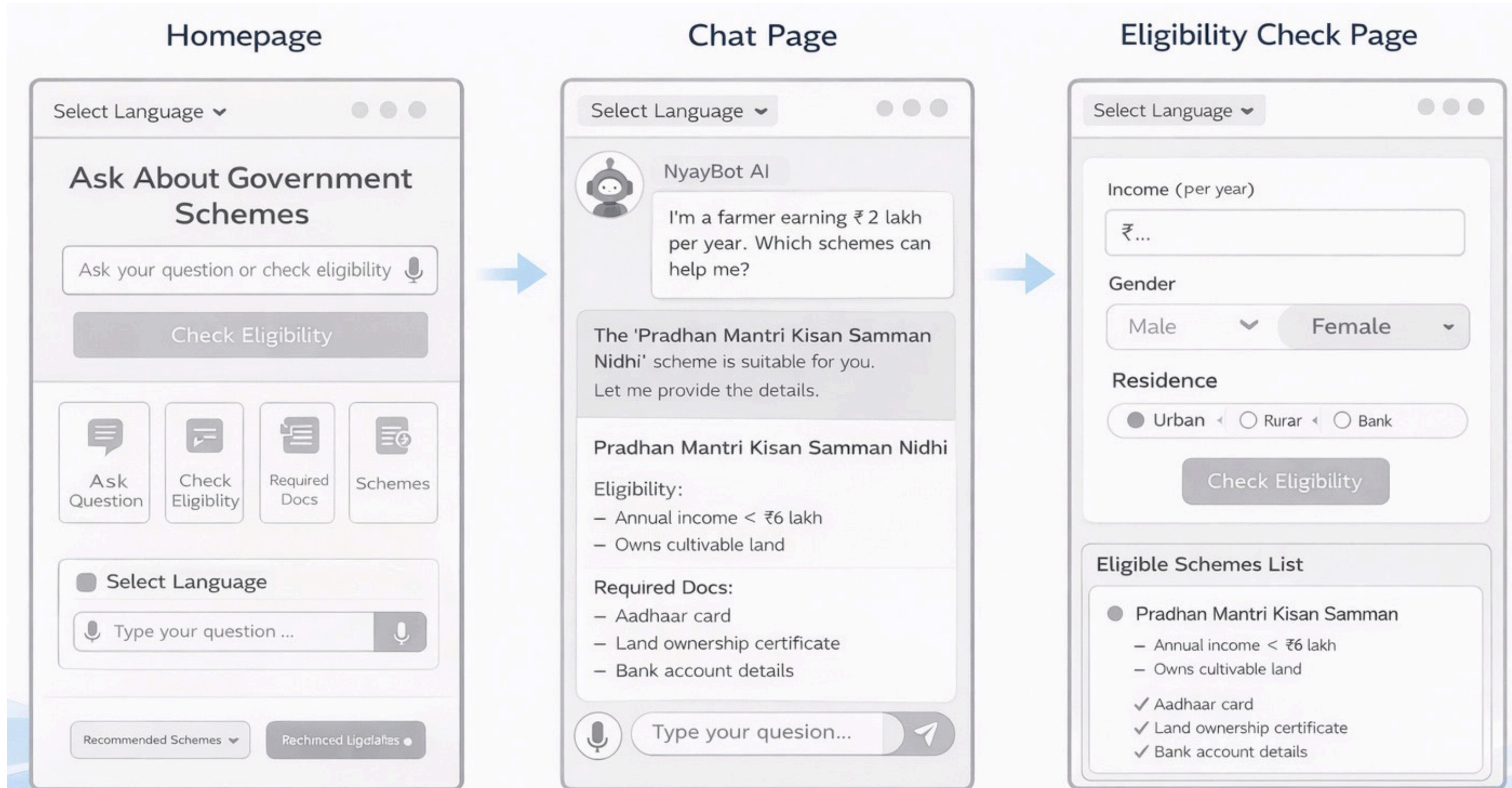
- Intelligent intent detection engine

Process flow diagram or Use-case diagram:

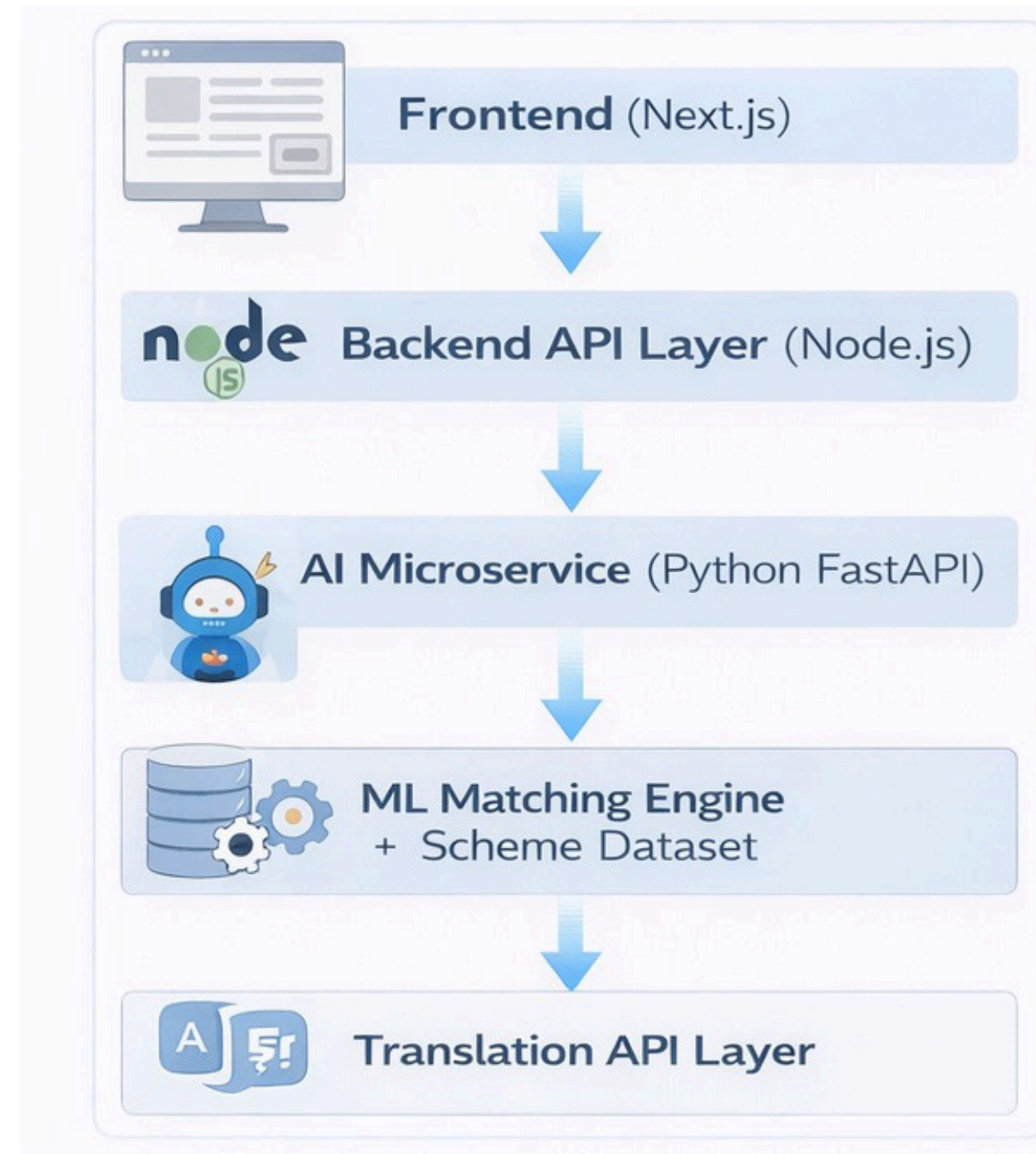


AI is applied at the “Matching Engine” stage to interpret user intent and compute similarity scores between user input and scheme database.

Wireframes/Mock diagrams of the proposed solution (optional)



Architecture diagram of the proposed solution:



TF-IDF Vectorization + Cosine Similarity Scoring

Technologies to be used in the solution:

- Frontend: Next.js
- Backend: Node.js (Express)
- AI Service: Python FastAPI
- Machine Learning: Scikit-learn
- NLP: TF-IDF + Cosine Similarity
- Translation: BHASHINI API
- Database: JSON / MongoDB
- Cloud (Future Deployment): AWS

Why AI is Necessary?

Without AI:

- Users must manually search through hundreds of schemes
- Keyword search fails for conversational queries
- No personalization based on profile
- No intelligent ranking of schemes

With AI:

- Intent understanding
- Context-aware recommendations
- Dynamic eligibility matching
- Scalable across states and languages

Responsible AI & Design Considerations

- No personal data stored without consent
- Transparent eligibility logic
- Avoids biased filtering
- Designed for low-literacy users
- Language inclusivity

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Thank You

