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AI for Bharat Hackathon

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Team Name : SoloForge AI

Team Leader Name : Gunti Varshini

Problem Statement : AI for Communities, Access & Public Impact (Student Track)

Brief about the Idea:

YojanaSathi: AI Government Scheme Finder

YojanaSathi is a multilingual AI assistant that helps Indian citizens discover government schemes they may be eligible for using simple profile inputs like age, income, caste/category, profession, and state.

It returns a ranked list of schemes with eligibility reasoning, benefits, required documents, and step-by-step application guidance grounded using RAG (Knowledge Base + Amazon Bedrock) to reduce misinformation and improve access.

How is it different from existing solutions?

- Most government portals provide information, but they are not personalized for individual eligibility.
- Generic chatbots can produce unverified or hallucinated scheme details.
- YojanaSathi generates responses only after retrieving verified context using Retrieval-Augmented Generation (RAG), ensuring grounded outputs.

How does it solve the problem?

- User provides simple profile inputs (age, income, caste/category, profession, state).
- The system retrieves relevant scheme information from a curated knowledge base.
- Amazon Bedrock generates a ranked list of schemes with eligibility reasoning.
- The user receives clear instructions, required documents, and application steps in their preferred language.

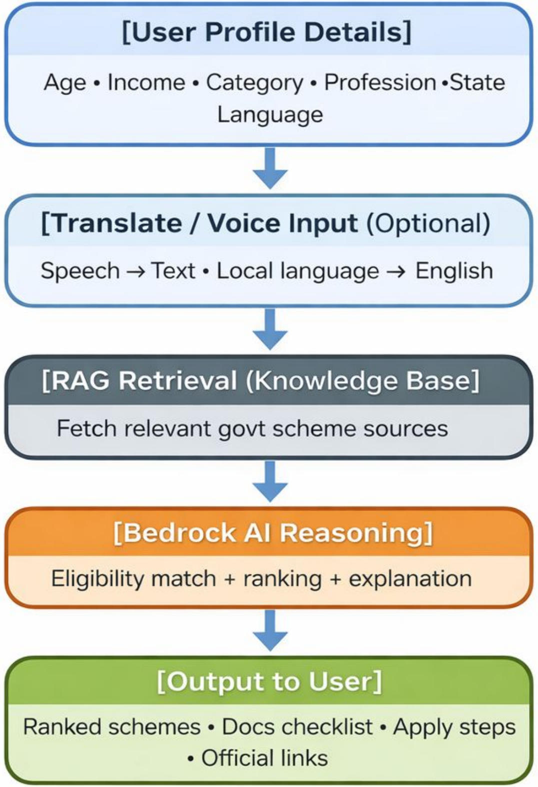
USP of the proposed solution

- Grounded responses using RAG to reduce misinformation.
- Explainable eligibility reasoning and transparency (why recommended).
- Multilingual, accessibility-first design suited for low-bandwidth users.

List of features offered by the solution

- **Profile-based scheme discovery** using age, income, caste/category, profession, and state
- **Multilingual interface** (input and output) for wider accessibility
- **Voice-first support** (speech-to-text) for users with low literacy (optional enhancement)
- **RAG-grounded responses** using verified scheme documents from the Knowledge Base
- **Ranked scheme recommendations** based on relevance and eligibility match
- **Eligibility explanation** with clear reasoning for each scheme
- **Benefit summary** for quick understanding of value
- **Document checklist** required for application
- **Step-by-step application guidance** with official portal links
- **Responsible AI safeguards** (disclaimer + no sensitive data storage without consent)

Process Flow



[User Profile Details]
Age • Income • Category • Profession •State
Language

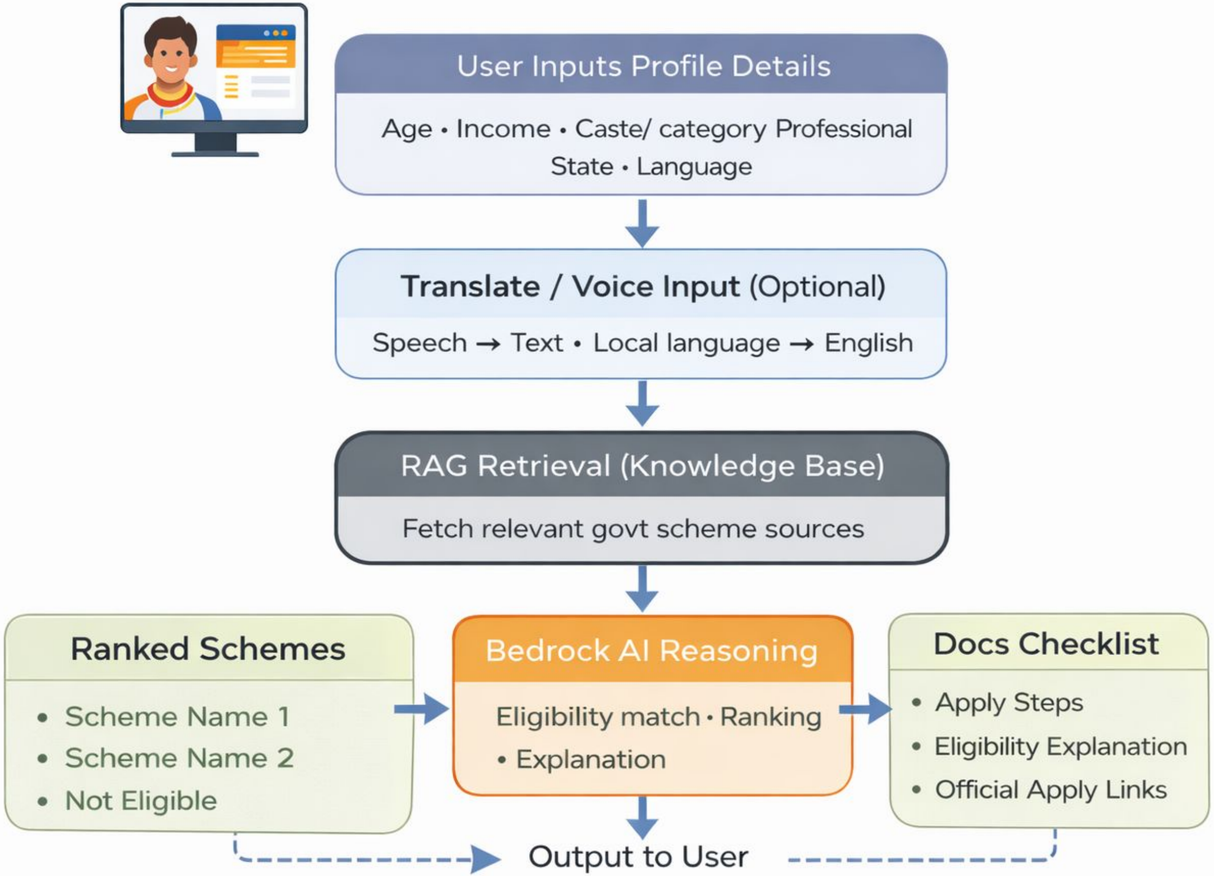
[Translate / Voice Input (Optional)
Speech → Text • Local language → English

[RAG Retrieval (Knowledge Base]
Fetch relevant govt scheme sources

[Bedrock AI Reasoning]
Eligibility match + ranking + explanation

[Output to User]
Ranked schemes • Docs checklist • Apply steps
• Official links

User flow of the proposed solution



User Inputs Profile Details

Age • Income • Caste/ category Professional State • Language

Translate / Voice Input (Optional)

Speech → Text • Local language → English

RAG Retrieval (Knowledge Base)

Fetch relevant govt scheme sources

Ranked Schemes

- Scheme Name 1
- Scheme Name 2
- Not Eligible

Bedrock AI Reasoning

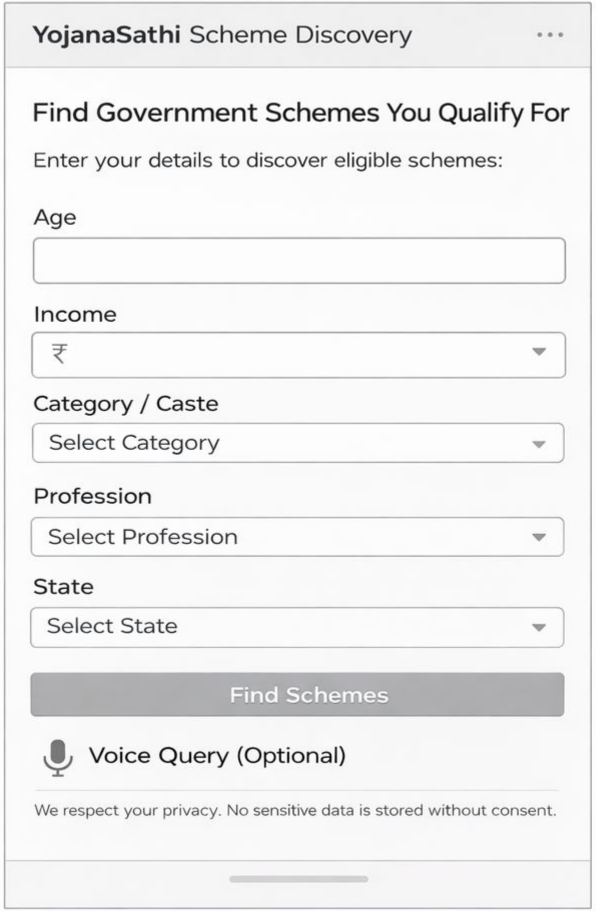
Eligibility match • Ranking • Explanation

Docs Checklist

- Apply Steps
- Eligibility Explanation
- Official Apply Links

Output to User

Mock diagrams of the proposed solution



YojanaSathi Scheme Discovery ···

Find Government Schemes You Qualify For

Enter your details to discover eligible schemes:

Age

Income

₹ ▾

Category / Caste

Select Category ▾

Profession

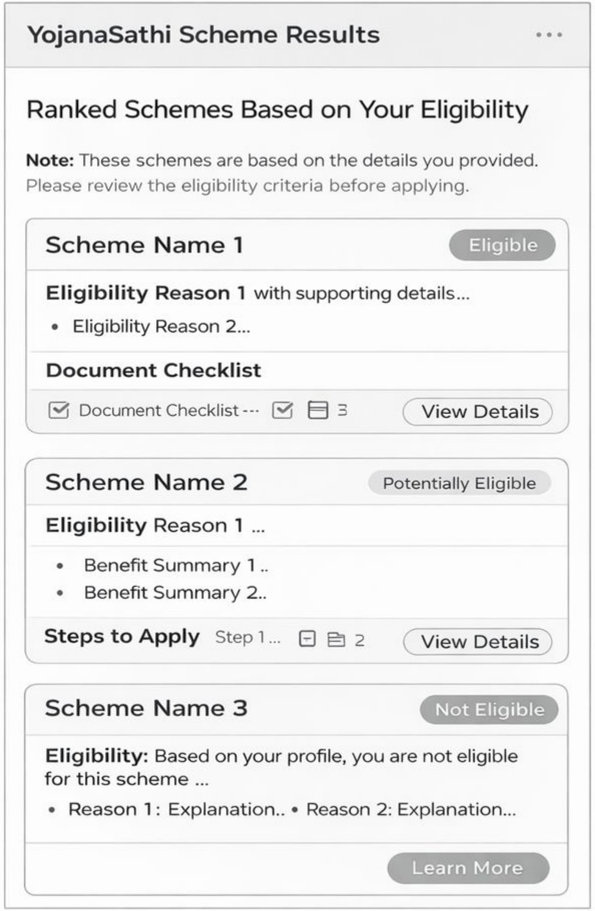
Select Profession ▾

State

Select State ▾

Voice Query (Optional)

We respect your privacy. No sensitive data is stored without consent.



YojanaSathi Scheme Results ···

Ranked Schemes Based on Your Eligibility

Note: These schemes are based on the details you provided. Please review the eligibility criteria before applying.

Scheme Name 1 — Eligible

Eligibility Reason 1 with supporting details...

- Eligibility Reason 2...

Document Checklist

☑ Document Checklist --- ☑ ▤ 3 — View Details

Scheme Name 2 — Potentially Eligible

Eligibility Reason 1 ...

- Benefit Summary 1 ..
- Benefit Summary 2..

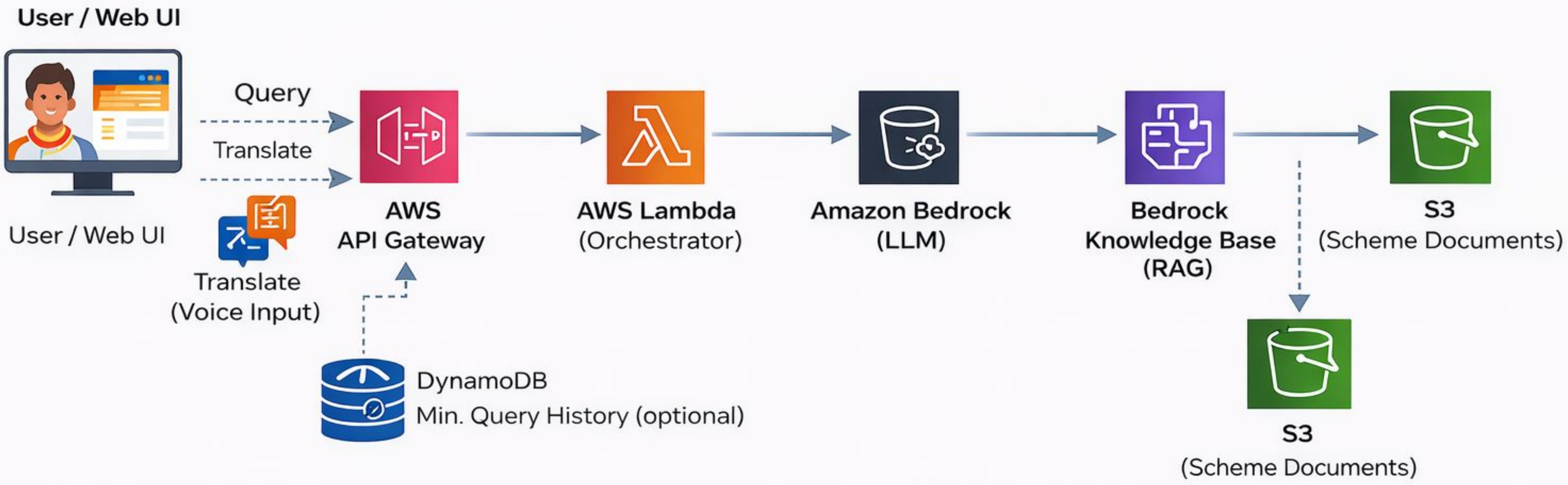
Steps to Apply Step 1 ... ⊟ 🗀 2 — View Details

Scheme Name 3 — Not Eligible

Eligibility: Based on your profile, you are not eligible for this scheme ...

- Reason 1 : Explanation.. • Reason 2: Explanation...

YojanaSathi AWS Architecture



Serverless RAG-based architecture using Bedrock + Knowledge Base for grounded scheme recommendationes.

Technologies to be used in the solution:

- **Frontend:** React + Tailwind CSS (minimal, mobile-friendly UI)
- **Backend:** AWS Lambda + API Gateway (serverless APIs)
- **AI Engine:** Amazon Bedrock (LLM reasoning and response generation)
- **RAG Layer:** Bedrock Knowledge Base / OpenSearch + Amazon S3 (grounded scheme retrieval)
- **Accessibility & Storage:** Amazon Translate + Transcribe (multilingual/voice), DynamoDB (consent-based sessions), Textract (future)

Estimated implementation cost

- **Serverless, pay-per-use design:** Lambda + API Gateway → low cost for MVP/demo
- **Main cost drivers:** Bedrock model inference + Knowledge Base/OpenSearch retrieval
- **Prototype / demo:** low cost (little cost for limited requests + small dataset)
- **Cost control:** caching frequent queries, limiting max tokens/top-k retrieval, AWS budgets & alarms

Hackathon Idea Submission Requirements:

What We Are Submitting (Idea Phase)

- **Problem statement selection + Idea brief + USP**
- **requirements.md** generated using **Kiro Spec → Design workflow**
- **design.md** generated using **Kiro Spec → Design workflow**
- **Presentation (10–12 slides)** in the provided template

Visual Blueprint Included

- Architecture diagram (AWS services)
- Process / user flow diagram
- Wireframes / UI mockups

Readiness

The design is feasible, scalable (serverless), and aligned with public impact and inclusion goals.

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Thank You