Project Title:

Smart Gram – Multilingual AI Helpdesk for Rural Citizens

1. Project Information

- **Team Members (5):**
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  2. Rugvedi Nimbhore
  3. Jidnya Jadhav
  4. Gaurav Desale
  5. Shubham Landge
- **College Name:** Vishwakarma Institute of Technology, Pune
- **Department:** Artificial Intelligence and Data Science
- **Year:** Third Year (3rd year)
- **Guide**: Mrs. Sheela Vijay Chinchmalatpure, Assistant Professor
- **Sponsor:** ITE Software Solutions Pvt. Ltd. , Narhe, Pune
- **Timeline:** September – November 2025 (3 Months)

2. Problem Statement

Rural citizens and farmers often face difficulties in accessing timely, reliable, and language-friendly information. Traditional grievance or query systems are either manual, time-consuming, or limited to urban areas, leaving rural communities underserved.

Key challenges include:

- Lack of AI-enabled query resolution in local languages.
- Absence of a knowledge base tailored for rural issues.
- Limited accessibility due to low digital literacy among farmers.

3. Solution Approach

The project proposes to build an AI-powered mobile application that enables farmers and rural citizens to:

- Ask questions through voice input (local language support).
- Receive instant, AI-driven voice responses from a curated knowledge base.
- Benefit from multilingual support, ensuring inclusivity for different regions.
- Top of that, the project is aimed to build very simple and rural citizen friendly UI/UX.

The application will rely on:

- **Natural Language Processing (NLP)** for speech-to-text and intent understanding.
- **Custom Knowledge Base** trained on agriculture, rural services, and FAQs.
- **Voice-based interaction** to reduce barriers for non-literate users.

4. Features to be Delivered

1. **Voice Query System** – Farmers can ask questions verbally.
2. **AI-based Response Engine** – Provides accurate answers from a custom knowledge base.
3. **Voice-based Answer Delivery** – System responds back in voice format.
4. **Multilingual Support** – Regional languages for inclusivity.
5. **Knowledge Base Management** – Easy update/curation of rural service data.

5. Deliverables

- Mobile Application (Android-first, expandable to other platforms).
- Integrated Knowledge Base System.
- Documentation (SRS, Design, Testing Reports, User Manual).
- Final Presentation & Demonstration.

6. Timeline (Aug – Nov 2025)

Month	Activities
August	Requirement Gathering, SRS Preparation
September	System Design, UI Wireframing, UI Design, Prototyping
October	Development of Core Modules (Voice Input, NLP, Knowledge Base, Multilingual Support), Environment Setup, Implementation
November	Integration, Testing, QA checks, Final Deployment & Submission

7. QA (Quality Assurance) Checks

- **Requirement Validation** – Ensuring SRS matches sponsor's vision.
- **Functional Testing** – Voice queries, responses, and multilingual support tested.
- **Usability Testing** – With rural citizen use-cases in mind.
- **Performance Testing** – System should respond in real-time with minimal latency.
- **Security Measures** – Safe handling of user queries & data.

8. Cost Breakdown (Categories Only – No Final Budget Yet)

Since the budget is yet to be finalized, we outline the broad areas where costs may arise. Exact requirements and figures will be finalized after discussion and further research:

1. Essential Services & Infrastructure
    - Any mandatory external services required during development (e.g., hosting, domains, APIs, third-party tools, or licenses).
2. Team Compensation *(to be structured under client guidance)*
    - Covers the development, testing, design, and project management efforts of our team.

9. Expected Outcomes

- A fully functional AI-powered application accessible to rural citizens.
- Improved access to information in regional languages.
- Demonstration of an industry-academic collaboration model with ITE Software Solutions.