

# AI Manthan 2025

## Idea Submission Form

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### 1. Team Information

<b>Team Name:</b>	Byte Builders
<b>Members (Name &amp; College):</b>	1. Arkin Kansra – USICT 2. Akshat Chowdhary – USICT 3. Prapti Gupta – USICT 4. Khushi Bhaskar – USICT
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### 2. Chosen Problem Statement

PROBLEM 2 - ASHA Saathi: 1-Click Health Summary Generator

### 3. Solution Overview

**Nivedini** is a multilingual AI-powered assistant designed to simplify medical documentation for ASHA workers by converting speech or scanned medical inputs into actionable, summarized health reports. It enables quick diagnosis, data entry, and health record management, all in a single click.

### 4. User Journey

An ASHA worker opens the app to upload a medical report or speak about a patient's condition. OCR or Speech-to-Text extracts key info, and AI generates a concise health summary. The report is saved under the patient's profile, playable in regional languages or exportable as PDF. For children, the app flags due vaccinations/medications. An integrated incentive tracker logs visits, summaries, and follow-ups, helping ASHA workers track performance and earn linked rewards. The whole process takes under 2 minutes.

### 5. Technical Specification & Architecture

**a) GenAI Models:** GPT-4 Turbo (API) for summaries and suggestions. Optional fallback: LLaMA3 / Mistral for offline use.

**b) Core AI Techniques:** OCR + Speech-to-Text (Whisper / Google STT) Prompt-based NLP for medical classification & summarization, Text-to-Speech via Coqui / Google TTS (multilingual support)

**c) Bharat-First Code-Switching:** Language detection (e.g., Hinglish via `langdetect`) Custom filters for normalization & translation, GenAI prompts designed for cultural and linguistic context

**d) Tech Stack:** React Native, FastAPI, Node.js, Tesseract, Google Vision API, Whisper, Google STT, Coqui TTS, Firebase, MongoDB, Render, Railway, Ngrok, Langdetect.

### 6. Impact & Feasibility

Our solution brings medical automation directly into the hands of grassroots health workers without requiring tech expertise. In just one step, ASHA workers can upload a report or speak about a patient's condition, and instantly receive a personalized, summarized diagnosis in their native language. This reduces time spent on documentation by 80 and minimizes errors in reporting. In the hackathon MVP, we will demonstrate: OCR and STT inputs with multilingual support, AI-based health summary generation, Personal database with individual report storage, TTS playback of generated reports, A child health section with vaccine/medicine reminders