PPT

 # Problem Statement
What real world problem are you addressing?
Millions of visually impaired students are left behind in academic settings because educational content is still largely designed for sighted learners. Those unfamiliar with Braille face even greater obstacles — often forced to rely on others to read their material aloud, sacrificing autonomy and confidence.

Why is this problem significant?
We were deeply moved by the story of **UPSC AIR-91 Manu Garg**, who cracked one of India's toughest exams despite being visually challenged. Behind his success was his mother, who read every book aloud to him. His story is inspiring — but it also highlights a tragic gap: **there is no intelligent, accessible platform that empowers such learners to study independently**. In the age of AI, this is not just a technological shortfall — it's a social injustice.

 # Proposed Solution
Overview of your solution
InVisionEd is an AI-powered voice-first educational assistant designed specifically for visually impaired students. It reads aloud textbooks, PDFs, and images, allows students to ask questions about the content via voice, and offers contextual summaries — all through an accessible and intuitive interface.

Key features and functionalities
Reads from scanned PDFs, textbooks, and images using OCR + Text-to-Speech
Conversational voice-based Q&A powered by AI
Intelligent summarization for quick revision
Screen-reader compatibility, large buttons, and hands-free voice control
Designed especially for those unfamiliar with Braille

What makes your solution unique?
Most tools simply read text. InVisionEd listens, understands, and teaches. It transforms learning into a dialogue — just like a personal tutor would. It's emotionally inspired, deeply inclusive, and powered by cutting-edge AI.

"InVisionEd: Where Voice Meets Vision, and Knowledge Knows No Boundaries."

Because not every learner sees the page - but every mind deserves to learn

 # Technical approach
Tools, technologies and frameworks to be used

Text extraction: Tesseract OCR, pdfplumber / PyMuPDF

Text to speech: Coqui TTS
Speech-to-Text: Vosk
Front end: React, Tailwind css
Backend: Python,Flask/ FastAPI
AI/LLM: Rasa, NLP, LLama, flan-t5
App: Flutter, Dart

hardware / software details
Workflow or architecture diagram

 # Feasibility and Impact
How feasible is your solution(time, cost, resources)?
Highly feasible with modern open-source tools and APIs
Minimal cost and scalable development for mobile-first platform
Core team includes members experienced in AI and mobile dev
Prototype development achievable within 2–3 week

Expected impact or benefits of your solution
Empowers visually impaired learners to study independently
Reduces dependency on caregivers
Bridges the gap between accessibility and modern learning
Offers voice-led, intuitive, personalized academic support
Can scale nationally with multilingual support in future versions

 # timeline and Goals
Plan of action for hackathon

Phase	Activities
May 15–17	Research validation, finalize idea & user pain points
May 18–20	Define feature list, user flow, and technical design
May 21–24	Build pitch deck, architecture diagram, plan prototype scope
May 25–28	Refine accessibility strategy, finalize storytelling and emotional positioning
May 29–31	Submit final idea with strong documentation and visual presentation

Key milestones and deliverables

Final objectives

 # Conclusion
Summary of your idea and its importance
InVisionEd is not just a tool — it's a mission to democratize learning for visually challenged individuals. By using voice and AI, we transform textbooks into tutors, and barriers into bridges. It's bold, inclusive, and timely.

What do you aim to achieve?
To give every visually impaired learner a chance to study independently, think critically, and succeed — with **zero reliance on vision and 100% access to knowledge**.

Why should your idea be considered?

Because **true innovation includes everyone**.
Because **education should speak to every learner — not just those who can see.**
Because:

> **"InVisionEd: Where Voice Meets Vision, and Knowledge Knows No Boundaries."**

GOOGLE FORMS

 # Project title
InVisionEd

 # Problem statement
Briefly describe the problem your team is solving (50 words max.)
Visually impaired students struggle to access academic content, especially if they don't know Braille. Current tools are outdated or passive, making them dependent on others. We aim to change that with an intuitive, AI-powered voice assistant that empowers independent learning through reading, answering, and summarizing.

#Solution Overview
Give a short summary of your proposed solution (150 words max.)
InVisionEd is a voice-first AI-powered educational tool designed for visually impaired students. It reads academic PDFs, textbooks, and images aloud using OCR and TTS, offers voice-based Q&A powered by AI, and provides intelligent summaries for easy revision. The interface is designed to be intuitive, screen-reader friendly, and accessible for users unfamiliar with Braille. Inspired by UPSC AIR-91 Manu Garg's journey — where his mother read each book aloud — InVisionEd replaces that dependency with autonomy and dignity. Unlike existing readers, our solution converses, understands, and teaches like a virtual tutor.

It’s built on accessible technologies and scalable design, ready to evolve into a full mobile app post-ideathon. This solution redefines what inclusive education can look and sound like.

WORKFLOW

1. Simple web page to upload pdf with a ‘read aloud’ button.
2. Take the image or pdf and read aloud its text.
3. Capturing user voice and command.
4. Making it smart.
5. Allowing full on conversations.