FEASIBILITY STUDY REPORT

Project Title: SummarAI – Hybrid Offline Meeting Recorder, Transcriber & Summarizer

1. Introduction

SummarAI is a hybrid offline–online desktop application that automates recording, transcription, content classification, intelligent summarization, and export of meeting or lecture content. This feasibility study evaluates whether the proposed system is practical, cost-effective, technologically viable, and beneficial for the target users.

2. Objectives

- To determine whether SummarAI can be developed using available tools and skills.
- To confirm technical, operational, and economic viability.
- To evaluate resource availability and compatibility with existing technologies.
- To recommend whether development should proceed.

3. Technical Feasibility

- The project uses Python, PyTorch, Whisper, FFmpeg, Tesseract OCR, LLaMA/Phi-3, all of which are stable, well-documented technologies.
- Development team (single student) has required skills in Python, AI models, APIs.

Hardware requirement:

- Minimum 8GB RAM
- GPU optional but recommended
- Desktop GUI built in Tkinter, which is lightweight and feasibl

4. Operational Feasibility

- The system automates workflows that students, teachers, and professionals struggle with (taking notes, summarizing meetings).
- User-friendly interface ensures easy adoption.
- No advanced technical background required for operators.
- Offline processing ensures privacy → higher user acceptance.

5. Economic Feasibility

Costs include:

- Development Cost → Minimal (open-source tools).
- Hardware/Software → Only standard laptop required.
- Maintenance → Low (updates to AI models only).

Benefits:

- Saves time in documentation
- Automates summaries for academic/office use
- Eliminates cost of commercial transcription tools

6. Risk Feasibility

- Model hallucination (controlled by offline LLaMA/Phi models).
- System load during Whisper processing (manageable with chunking).
- OCR errors (handled by confidence thresholding).

7. Legal & Ethical Feasibility

- Offline-first architecture improves privacy.
- No external data dependency.
- User recordings stored locally.