**TITLE OF THE PROJECT:** Intelligent Healthcare Assistant For Early Multi- Diseases Detection

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**ABSTRACT**

Healthcare systems face major challenges such as delayed diagnosis, lack of accessibility in rural areas, and shortage of medical professionals. Many patients fail to seek timely medical advice during the early stages of illness, resulting in late detection and higher treatment costs. Although several AI-based healthcare applications have been developed, most are limited to text-based chatbots, which are not suitable for elderly or illiterate users.

The proposed project, Intelligent Healthcare Assistant for Early Multi-Disease Detection, introduces a multimodal AI-powered healthcare system that can process voice, text, and medical image inputs to provide early disease diagnosis. The system integrates Whisper Speech-to-Text for converting patient voice into text, LLaMA 3 Vision for analyzing medical images, Groq Inference Engine for real-time processing, and Text-to-Speech technology for generating doctor-like spoken responses. A Gradio interface is used for simple and interactive user access.

The system provides both text and voice outputs, making healthcare consultation more accessible and inclusive. By combining speech recognition, computer vision, and natural language processing, the project aims to support early diagnosis, assist in primary medical consultations, and make healthcare technology available to all sections of society.