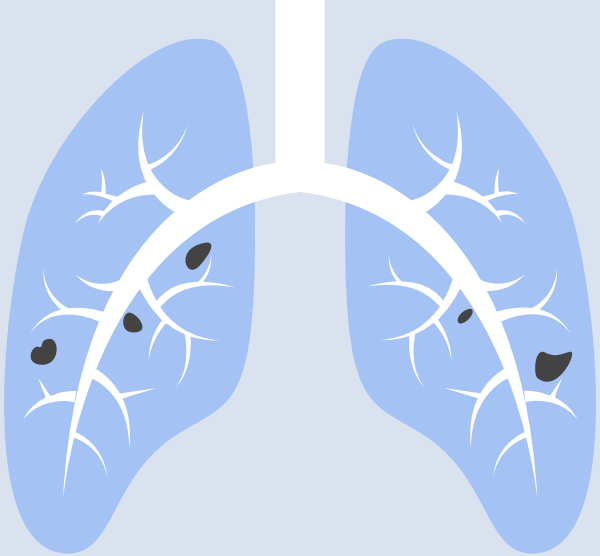
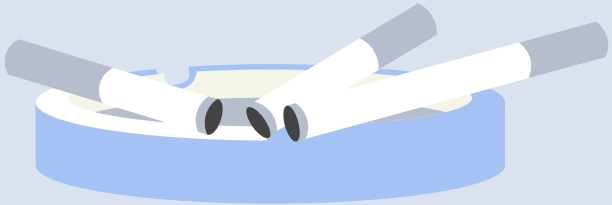


Lung Cancer Predictor App

TEAM NAME: OMNI

01 Problem Statement

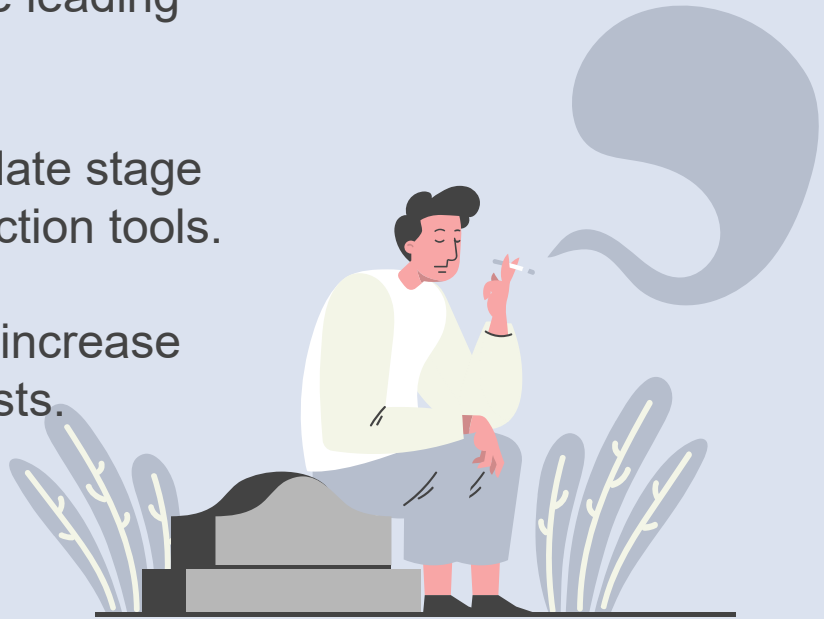


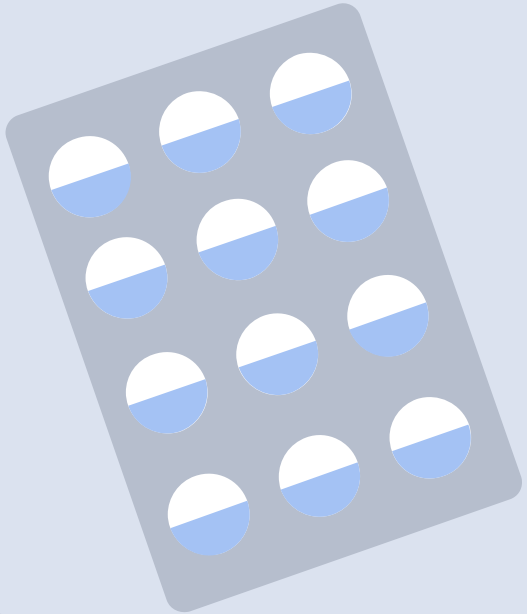
PROBLEM STATEMENT

•**Global Challenge:** Lung cancer is the second most common cancer worldwide and the leading cause of cancer-related deaths.

•**Diagnosis Gap:** Often diagnosed at a late stage due to lack of accessible and early detection tools.

•**Need:** Early detection can significantly increase survival rates and reduce healthcare costs.





02

Solution Overview

Overview

Our App:

An AI- driven lung cancer predictor app combining **Retrieval - Augmented Generation (RAG)** and **Groq API** for rapid and accurate predictions.

Key Features:

Efficient Data Analysis : Uses RAG to retrieve and process medical literature and patient data.

High - Speed Processing: Leverages Groq's low - latency AI capabilities for real - time predictions.

User - Friendly Interface: Designed for both patients and healthcare providers.

03

Market Demand and Opportunity

Market Demand

Rising Incidence: Over 2.2 million new cases of lung cancer annually (WHO).

Economic Burden: Global cost of cancer treatment exceeds $1 trillion annually, with early detection potentially reducing treatment expenses by 30 - 50%.

AI in Healthcare: The AI healthcare market is projected to reach $208 billion by 2030, growing at a CAGR of 37%.

Telemedicine Surge: Increased adoption of telemedicine post - COVID, creating a demand for AI tools in remote diagnostics.

04

Impact and Benefits

Impact and Benefits

Patients: Early and accessible lung cancer detection, improving survival rates.

Healthcare Providers: Streamlined workflow with reliable AI support for diagnosis.

Public Health: Reduced healthcare burden through early intervention .

05

Future Roadmap

Future Improvements

Expansion to Other Cancers: Extend the app to detect other cancers like breast and prostate.

Global Rollout: Deploy in underserved regions with limited access to medical experts.

AI Advancements: Integrate advanced AI models for multi - modal predictions (**text, images, and genomics**).

TEAM MEMBERS

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Thanks!