Project Design Phase-I
Proposed Solution Template

Date	27 October 2023
Team ID	Team-592681
Project Name	Early Diagnosis Of Diseases Using Image processing Of Human Nails
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in the proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	The early diagnosis of diseases using image processing of human nails is a critical challenge in the field of medical diagnostics. In contemporary healthcare, the inability to promptly and accurately detect pathological conditions through nail images represents a substantial gap in patient care, has significant implications for public health, and results in both personal and societal consequences.

2.	Idea / Solution description	Develop an innovative healthcare application that harnesses state-of-the-art image processing techniques, specifically Transfer Learning with VGG16, to create a user-friendly web-based platform for the early diagnosis of diseases through nail images. This system will enable individuals to upload nail images, which will be processed by a Convolutional Neural Network (CNN) based on VGG16 architecture. The system will then classify diseases and provide recommended courses of action for timely intervention.
3.	Novelty / Uniqueness	Utilizing Convolutional Neural Networks (CNNs) for the early diagnosis of diseases through nail image processing represents a pioneering approach to healthcare diagnostics. It ensures unparalleled precision and efficiency, significantly reducing the risks associated with late-stage disease complications. Moreover, this innovative application promotes early intervention, contributing to individual health, healthcare sustainability, and societal well-being. It combines advanced technology with accessible web-based services, setting a new standard in the realm of early disease detection and personalized health recommendations.

4.	Social Impact / Customer Satisfaction	The social impact of our early disease diagnosis solution transcends individual benefits and extends to improved healthcare access, community health, environmental preservation, economic growth, and empowerment, fostering overall customer satisfaction and societal well-being.
5.	Business Model (Revenue Model)	Collaborate with healthcare institutions, clinics, or insurance companies to offer your diagnostic services as part of their healthcare packages. This can be a revenue-sharing model where you earn a percentage of the fees collected from users. Additionally it's essential to continually assess the effectiveness of our business model and adapt it as necessary based on user feedback, market dynamics, and emerging technologies.
6.	Scalability of the Solution	As more users adopt our system, the positive impact on community health and disease prevention scales accordingly. With broader adoption, we can collectively work towards improving public health and fostering a culture of proactive healthcare management. Also the core of our solution is built on Convolutional Neural Networks (CNNs) and Transfer Learning and is designed to efficiently accommodate increasing data volumes.