

Project Design Phase-I
Proposed Solution Template

Date	19 September 2022
Team ID	PNT2022TMID04139
Project Name	Project -AI - Based localisation and Classification of Skin disease with Erythema .
Maximum Marks	2 Marks

Proposed Solution Template:

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

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Now a day's people are suffering from skin diseases, More than 125 million people suffering from Psoriasis also skin cancer rate is rapidly increasing over the last few decades especially Melanoma is most diversifying skin cancer. If skin diseases are not treated at an earlier stage, then it may lead to complications in the body including spreading of the infection from one individual to the other. The skin diseases can be prevented by investigating the infected region at an early stage. The characteristic of the skin images is diversified so that it is a challenging job to devise an efficient and robust algorithm for automatic detection of skin disease and its severity. Skin tone and skin colour play an important role in skin disease detection. Colour and coarseness of skin are visually different. Automatic processing of such images for skin analysis requires quantitative discriminator to differentiate the diseases.
2.	Idea / Solution description	To overcome the above problem we are building a model which is used for the prevention and early detection of skin cancer, psoriasis. Basically, skin disease diagnosis depends on the different characteristics like colour, shape, texture etc. Here the person can capture the images of skin and then the image will be sent the trained model. The model analyses the image and detect whether the person is having skin disease or not.
3.	Novelty / Uniqueness	The system is trained to classify as much as skin diseases possible. The system also has some special features like booking appointments directly to the doctors,can upload previous medical history.The system is planned to design in such a way the user can capture the images of his/her skin directly from their gadgets camera.

4.	Social Impact / Customer Satisfaction	This solution helps people with skin diseases with early detection and prevention. It helps them to increase their confidence level and helps them to come out of stress, social isolation, low self-esteem. Our customer satisfaction focuses on classifying the diseases correctly and predicting it accurately.
5.	Business Model (Revenue Model)	We are planning to use a strategy called freemium in which the user may access the main product that is the prediction of skin disease but will be charged for other services like booking doctor's appointment, getting online prescription etc. Further we are also planning to bring in advertisement-based revenue model.
6.	Scalability of the Solution	Scalability of our solution is achieved through choosing the right tech stack so that it can accommodate even in large operating systems in terms of performance. It is also planned to achieve scalability through data collection and accurate model training, so if expanded will also yield better results.