

# Project Design Phase-I

## Proposed Solution

Date	19 September 2022
Team ID	PNT2022TMID23662
Project Name	Project – AI Based Localization and Classification of Skin Disease with Erythema
Maximum Marks	2 Marks

### Proposed Solution:

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	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. The objective is to detect whether the person has erythema skin disease or not and to identify where exactly the skin disease is locating.
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. Here the person can capture the images of skin and then the image will be sent to the trained model. The model analyses the image and detect whether the person has skin disease or not.
3.	Novelty / Uniqueness	The system is trained to classify as much as skin diseases possible. Our classification model performs more accurately. IBM Watson is also deployed to more accurately optimize user time while automating complicated actions and developing predictions about the future. 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 using camera.
4.	Social Impact / Customer Satisfaction	This solution helps people with early detection and prevention of skin disease. It helps them to increase their confidence level and helps them to come out of their 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 can access the main product like predicting 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 advertisement-based revenue model. It can be collaborated with NGO healthcare, government camps to create awareness and provide knowledge about the benefits of the proposed 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. This system is more scalable because it takes any type of images regardless of its resolution and it provides high performance irrespective of the environment. It is also planned to achieve scalability through data collection and accurate model training, so if expanded will also yield better results.
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