

Project Design Phase-I Proposed Solution Template

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| Date | 21 October 2022 |
| Team ID | PNT2022TMID16989 |
| Project Name | AI-BASED LOCALIZATION 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 |
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| 1. | Problem Statement (Problem to be solved) | <p>Most cases are caused by a reaction to infection with the herpes simplex virus. Some people with erythema multiforme develop herpesvirus cold sores on their lips several days before an attack of erythema multiforme.</p> <p>Less often, cases are caused by bacterial infections (such as mycoplasma), drugs, vaccines, infections with other viruses (especially hepatitis C), and certain noninfectious diseases that affect the immune system, such as systemic lupus erythematosus. Doctors are unsure exactly how erythema multiforme happens, but a type of immune reaction is suspected. Some cases of erythema multiforme do not have a clear cause.</p> <p>.</p> |
| 2. | Idea / Solution description | <p>Erythema multiforme (EM) is the most common type of erythema. Its cause is thought to be IgM immune complexes deposited in the skin, often as a result of viral or bacterial infections, such as herpes simplex virus (HSV) type 1 and 2 and Mycoplasma pneumoniae infections. More rarely, it can be a reaction to a drug or vaccine, according to the National Library of Medicine.</p> <p>The condition can affect both men and women, although men are five times more likely to develop it compared to women. Most people who get EM are between 20 and 30 years old, although 20% of those diagnosed are children.</p> |
| 3. | Novelty / Uniqueness | <p>Erythema multiforme major (EM major) skin lesions are more extensive and serious. Raised, edematous papules covering more than 10% of the body with involvement of at least one mucous membrane characterizes the condition. A drug reaction is a more likely cause than an infection. Similarly, medication also causes Stevens-Johnson Syndrome, a potentially life-threatening skin rash.</p> <p>Unlike EM minor, EM major causes extensive blistering sores on one or more of the body's mucous membranes, such as the lips or mouth.. They can also appear on the eyes or anus. If you are experiencing irritation or what appears to be blistering on one of these areas of your body, you should contact your doctor</p> |
| 4. | Social Impact / Customer Satisfaction | <p>Treatment approaches for erythema nodosum differ based on the person's age and overall health, medical history, medication and therapy tolerance, and progression of the disease. Usual options are anti-inflammatory drugs such as NSAIDs and cortisone, either administered orally or through injections. While the condition can be painful, it does not compromise internal organs. It may, however, be</p> |

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| | | an indication of more serious conditions |
| 5. | Business Model (Revenue Model) | <p>Erythema multiforme can affect people of any age, with children representing 20 percent Trusted Source of cases. However, it most commonly occurs in young adults between 20 and 30 years old. It is more prevalent in men, affecting five men for every one woman. Erythema multiforme can be minor or major. Erythema multiforme minor is usually a mild condition that causes a rash on the skin. Erythema multiforme major can be severe, affecting the mucous membranes, and typically requires more extensive treatment.</p> |
| 6. | Scalability of the Solution | <p>Scaling skin may arise when an injury or a medical condition damages the outer layer of skin. Some conditions interfere with the structure and moisture content of the skin or cause the body to produce extra skin, which can lead to dry or flaky skin.</p> <p>Scaling skin is a symptom of many medical conditions, including psoriasis, contact dermatitis, eczema, and fungal skin infections. Some causes can lead to health complications if left untreated. Commonly affected areas include the face, legs, and hands.</p> <p>Continue reading to find out what causes scaling skin, how to identify the condition with our picture guide, treatment options, and when to see a doctor.</p> |