**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 15 october 2022 |
| Team ID | PNT2022TMID26285 |
| Project Name | Project -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.

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| **S.No.** | **Parameter** | **Description** |
|  | Problem Statement (Problem to be solved) | Erythema is redness of the skin caused by injury or another inflammation-causing condition. Often presenting as a rash, erythema can be caused by environmental factors, infection, or overexposure to the sun, early detection along with proper medication can significantly improve symptoms and quality of life. |
|  | Idea / Solution description | In This project,we are using Artificial Intelligence(AI) domain to detect the skin disease by scanning the affected area and identifying the kind of erythema. |
|  | Novelty / Uniqueness | Here we use YOLO algorithm which divides the image into N grids, each having an equal dimensional region of SxS.Each of these N grids is responsible for the detection and localization of the object it contains using packages like SKYKIT,NUMPY. |
|  | Social Impact / Customer Satisfaction | Persistent erythema associated with may negatively impact quality of life (QoL), self-esteem, and self-confidence. We evaluated burden and health-related QoL (HRQoL) impacts of centrofacial erythema.Centrofacial erythema represents a substantial HRQoL burden, especially for those with more severe erythema. |
|  | Business Model (Revenue Model) | Early detection with proper medication can significantly improve symtoms and quality of life.Our model can be used in hospitals to detect erythema in early stages and cure it. |
|  | Scalability of the Solution | scalability in our project is achieved by using deep learning module which imports the advanced packages and detects the disease by scanning the image region-wise,hence our project allows alteration in accordance with various paramaters of erythema |