**Project Design Phase-I**

**Proposed Solution Template**

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| Date | 05 may 2023 |
| Team ID | NM2023TMID10432 |
| Project Name | Project - Automated Weather Classification Using Transfer Learning. |
| 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) | Weather classification plays a crucial role in various applications such as climate modeling, disaster management, agriculture, and transportation. Traditionally, weather classification relies on manual analysis of meteorological data, which is time-consuming and prone to human error. |
|  | Idea / Solution description | Gather a large dataset of weather images containing different weather conditions, such as sunny, cloudy, rainy, foggy, snowy, etc. The dataset encompass diverse geographical locations and time periods to capture variations in weather patterns. |
|  | Novelty / Uniqueness | Transfer learning is a well-established technique in the field of deep learning. However, applying transfer learning specifically for weather classification is a relatively novel and innovative approach. |
|  | Social Impact / Customer Satisfaction | Improves the accuracy and efficiency of weather analysis, enabling real-time monitoring, supporting decision-making in various domains, promoting accessibility, and fostering customer satisfaction and trust.Top of Form |
|  | Business Model (Revenue Model) | It encompasses revenue streams such as subscription-based access to the system for users in different sectors, API access for integration into other applications, licensing of processed weather data to interested parties, and value-added services like weather reports and advanced analytics. |
|  | Scalability of the Solution | To achieve scalability by handling large-scale weather datasets, leveraging scalable training and inference processes, deploying on scalable cloud infrastructure, adopting a modular architecture for easy integration and expansion, and emphasizing continuous improvement and maintenance |