Project Design Phase-I
Proposed Solution Template

Date	06 May 2023
Team ID	PBL-NT-GP--1928-1680540682
Project Name	Automated Weather Classification using Transfer Learning.

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)	It is an automated weather classification system using transfer learning. The system should be able to accurately classify weather conditions such as sunny, cloudy, rainy, and snowy using meteorological data. The pre-trained model should be able to capture the important features of the meteorological data, and the fine-tuning process should adapt the model to the specific weather conditions of the dataset. The system should also be able to handle real-time weather data and make predictions in a timely manner.
2.	Idea / Solution description	1. Using pre trained image classification model 2. Using pre trained language model 3. Using pre trained hybrid model 4. Using pre trained model ensymbol 5. Automated weather classification using transfer learning has the potential to provide accurate and efficient weather classification.
3.	Novelty / Uniqueness	1. Transfer learning 2. Integration of images and language features 3. Small dataset 4. Generalisation 5. Efficiency Automated weather classification using transfer learning is a novel and unique approach that can overcome several challenges associated with traditional weather classification methods. By leveraging pre-trained models, it can provide accurate and efficient weather pattern classification, making it suitable for a range of applications.

4.	Social Impact / Customer Satisfaction	1. Improved weather forecasting 2. Efficient resource utilization 3. Better customer satisfaction 4. Accessibility 5. Environmental impact Automated weather classification using transfer learning can have a significant social impact and improve customer satisfaction by providing more accurate, reliable, and accessible weather information.
5.	Business Model (Revenue Model)	1. Subscription based 2. Pay-per -use 3. Advertising base 4. partnership based 5. Data sales The revenue model for automated Weather classification using transfer learning will depend on the specific business case and the Target Market. The revenue model should align with value proposition of the weather classification service and provide a sustainable business model for the service provider.
6.	Scalability of the Solution	Automated weather classification using transfer learning has a high potential for scalability due to its cloud-based infrastructure, pre-trained models, distributed training techniques, API-based architecture, and modular design. These features enable the system to handle large amounts of data and user requests, making it suitable for real-time and large-scale applications.