

## Project Initialization and Planning Phase

Date	09 JULY 2024
Team ID	SWTID1720111029
Project Name	Unveiling Climate Change Dynamics through Earth Surface Temperature Analysis
Maximum Marks	3 Marks

### Problem Statement:

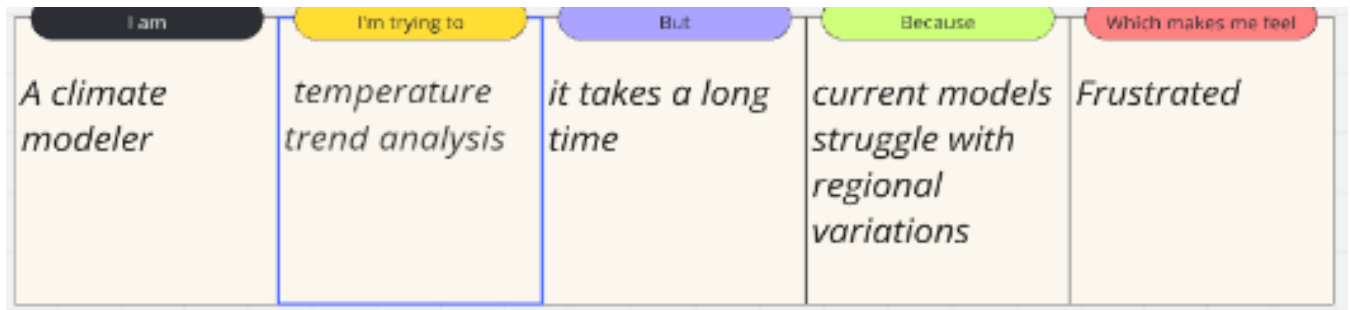
#### The Blindfold on Climate Change Predictions.

**Challenge:** Global average Earth surface temperature data, despite indicating a rise of 1.3°C since pre-industrial times (source: NASA Climate Change: Global Temperature <https://climate.nasa.gov/vital-signs/global-temperature/?intent=121>), lacks the detail to capture crucial spatial and temporal variations. These variations hold the key to understanding the intricate dynamics of climate change and predicting future trends. Existing methods struggle to analyze these complexities effectively, hindering our ability to anticipate the full impact of a changing climate.

**Impact:** This limited understanding restricts our ability to develop targeted mitigation and adaptation strategies for the potential consequences of climate change, such as extreme weather events and rising sea levels.

**Aim:** To develop and implement a deep learning model that accurately analyzes and interprets average global Earth surface temperature data to unveil climate change dynamics, identify significant patterns, and predict future temperature trends. The model should address the complexities of spatial and temporal variability in temperature data, account for various influencing factors, and provide insights that can inform climate change mitigation and adaptation strategies.

I am	I'm trying to	But	Because	Which makes me feel
A climate researcher	analyse global temperature data	it takes a long time	the datasets are massive and complex	Overwhelmed



Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A climate researcher	Analyse global temperature data	It takes a long time	The datasets are massive and complex	Overwhelmed
PS-2	A climate modeler	Temperature trend analysis	It takes a long time	Current models struggle with regional variations	Frustrated