

## Project Initialization and Planning Phase

Date	10 June 2024
Team ID	SWTID1749709340
Project Name	Predicting Co2 Emission by countries Using Machine Learning
Maximum Marks	3 Marks

### Define Problem Statements (Customer Problem Statement Template):

As a policymaker, environmental researcher, or concerned citizen, I need to understand how CO<sub>2</sub> emissions will change in the coming years for different countries so that I can plan effective policies, research interventions, and awareness strategies to mitigate climate change and manage resources responsibly.

Currently, it is challenging for individuals and organizations to easily access reliable, country-specific CO<sub>2</sub> emission predictions based on historical data. Existing data is often static, outdated, or hard to interpret, making it difficult to:

- Track and compare emission trends across countries.
- Forecast future emissions under current and potential policy scenarios.
- Raise awareness and encourage accountability among governments and corporations.

As a result, stakeholders lack actionable insights to take timely decisions toward climate goals.

### What they need:

- A user-friendly tool where they can input a country and year to predict CO<sub>2</sub> emissions accurately.
- Insights into emission trends to evaluate the effectiveness of existing policies and plan interventions.
- Reliable, data-driven support for reporting, planning, and climate change research.

### Outcome:

By solving this problem, we can empower users to visualize and act upon CO<sub>2</sub> emission forecasts, supporting data-driven decisions for a sustainable future.

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	A policymaker	Plan effective climate policies for my country	I lack accurate, future-focused CO <sub>2</sub> emission predictions	current data is outdated, fragmented, or hard to analyze	unprepared and uncertain in making policy decisions
PS-2	An environmental researcher or student	Analyze CO <sub>2</sub> emission trends of countries for upcoming years	I cannot easily get interactive, country-specific forecasts	existing tools are not user-friendly or lack country + year customization	frustrated and limited in conducting climate research