Project Initialization and Planning Phase

Date	18 July 2024
Team ID	xxxxxx
Project Name	Predicting The Energy Output Of Wind Turbine Based On Weather Condition
Maximum Marks	3 Marks

Define Problem Statements (Predicting The Energy Output Of Wind Turbine Based On Weather Condition):

Energy companies, wind farm operators, and grid operators struggle with optimizing wind turbine energy production due to variable weather conditions, leading to inefficiencies in energy distribution, increased operational costs, and poor maintenance scheduling. By developing a machine learning model to predict energy output based on historical weather data, stakeholders can make informed decisions about energy distribution, plan maintenance to minimize downtime, and efficiently integrate wind energy into the grid, addressing their pain points and enhancing overall management.

Problem Statement (PS)	I am (Customer)	I'm trying to	But	Because	Which makes me feel
PS-1	An energy company, wind farm operator, or grid operator	Predict the energy output of wind turbines based on weather conditions	The variability in weather conditions makes prediction challenging	Accurate predictions are needed for optimizing energy production, planning maintenance, and balancing the grid	Optimistic about improving efficiency and decision-making