Model Development Phase Template

Date	15 july 2024
Team ID	team-739770
Project Title	Predicting the Energy Output Of Wind Turbine Based On Weather Condition
Maximum Marks	5 Marks

Feature Selection Report Template

In the forthcoming update, each feature will be accompanied by a brief description. Users will indicate whether it's selected or not, providing reasoning for their decision. This process will streamline decision-making and enhance transparency in feature selection.

Feature	Description	Selected (Yes/No)	Reasoning
Wind speed	Average wind speed at turbine hub height.	Yes	Wind speed is a fundamental factor influencing turbine performance and energy output. Higher wind speeds generally correlate with increased electricity generation, making it a crucial predictor in our model.
Air Pressure	Atmospheric pressure at turbine location.	Yes	Air pressure variations affect wind patterns and turbine performance. Lower air pressure typically correlates with higher wind speeds, which can lead to increased energy production. Therefore, air pressure was deemed relevant for predicting energy output.

Wind Direction	Direction from which the wind is blowing.	N0	While wind direction can influence turbine operation, its impact on energy output is secondary to wind speed. Experiments showed that including wind direction did not enhance predictive power sufficiently to justify its inclusion in the final model.