**Model Development Phase Template**

|  |  |
| --- | --- |
| Date | 17 July 2024 |
| Team ID | xxxxxx |
| 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** |
| Time | Time and Date | No | May not add predictive value unless analyzing temporal trends. |
| ActivePower(kW) | Active power (kW) is the portion of electrical power that performs useful work, like lighting or running motors. | No | An outcome, not a predictor; derived from other features. |
| WindSpeed(m/s) | Wind speed (m/s) measures how fast the wind is moving in meters per second. | Yes | Directly affects the amount of energy generated, as higher wind speeds generally lead to more power. |
| Theoretical\_Power\_Curve (KWh) | Theoretical Power Curve (kWh) represents the calculated amount of energy a system could generate under ideal conditions over time. | Yes | Indicates potential energy generation under ideal conditions |
| Wind\_Direction | Wind direction indicates the direction from which the wind is coming, usually measured in degrees from true north. | No | Less direct impact compared to wind speed and theoretical power. |