# Model Development Phase Template

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| Date | 15 March 2024 |
| Team ID | SWTID1720171463 |
| 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 |
|---|---|---|---|
| Date/Time | Timestamp indicating the date and time of each observation, allowing for temporal analysis and seasonality considerations. | No | For predicting data or time is not required |
| LVActivePower (kW) | The actual power output generated by the wind turbine at a given moment, measured in kilowatts (kW). | Yes | Relevant for predicting energy |

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| Wind Speed (m/s) | The speed of the wind at the turbine's location, measured in meters per second (m/s). | Yes | Speed is important to predict |
| Theoretical PowerCurve (KWh) | The theoretical maximum power output that could be achieved by the wind turbine at a specific wind speed, measured in kilowatt-hours (KWh). | Yes | Helps in predicting the maximum energy output |
| Wind Direction (°) | The direction from which the wind is blowing, measured in degrees. | No | Not relevant |