**Model Development Phase Template**

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| Date | 14 July 2024 |
| Team ID | 740045 |
| Project Title | Exploratory Analysis of Rain Fall Data in India for Agriculture |
| 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.

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| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| Year | The year of the recorded rainfall data | Yes | Important for analysing long-term trends and patterns in rainfall. |
| Month | The month of the recorded rainfall data | Yes | Critical for seasonal analysis and understanding monthly rainfall distribution. |
| Day | The day of the recorded rainfall data | No | Daily granularity may not significantly improve model performance and could introduce noise. |
| Rainfall Amount | The amount of rainfall recorded (in mm) | Yes | Core variable for the analysis; directly related to the objective of the study. |
| Seasonal Average | The average rainfall for a particular season | Yes | Helps in understanding seasonal patterns and variations in rainfall. |
| Temperature | The temperature recorded alongside rainfall data | Yes | Useful for understanding the interplay between temperature and rainfall on crop growth. |
| Humidity | The humidity level recorded alongside rainfall data | Yes | Relevant for analysing the combined effect of humidity and rainfall on agriculture. |
| Wind Speed | The wind speed recorded alongside rainfall data | No | Typically has less direct impact on rainfall patterns and crop growth compared to other selected features. |
| Historical Rainfall | Historical rainfall data (lagged values) | Yes | Provides context and trends, useful for predictive modeling of future rainfall patterns. |