

## Model Development Phase Template

Date	15 April 2024
Team ID	Team-738164
Project Title	Rainfall Prediction Using Machine Learning
Maximum Marks	5 Marks

### Feature Selection Report

Feature	Description	Selected (Yes/No)	Reasoning
Date	Date of the observation	Yes	Date could potentially impact rainfall patterns based on seasonal variations. To extract month and observe the patterns.
Location	Location of the observation	Yes	Different locations may have varying rainfall patterns, influencing the prediction.
MinTemp	Minimum temperature of the day	Yes	Lower temperatures might indicate a higher chance of rainfall.
MaxTemp	Maximum temperature of the day	Yes	Higher temperatures could lead to evaporation, affecting rainfall.

Rainfall	Rainfall amount for the day	Yes	Directly related to the target variable "RainTomorrow."
Evaporation	Evaporation rate for the day	Yes	Evaporation levels may impact the likelihood of rainfall.
Sunshine	Sunshine duration for the day	Yes	Sunlight can influence weather conditions and potentially rainfall.
WindGustDir	Direction of the maximum wind gust	Yes	Wind direction can affect weather patterns and rainfall distribution.
WindGustSpeed	Speed of the maximum wind gust	Yes	Wind speed can influence the movement of weather systems and rainfall.
WindDir9am	Wind direction at 9 AM	Yes	Morning wind direction may indicate weather patterns affecting rainfall.
WindDir3pm	Wind direction at 3 PM	Yes	Afternoon wind direction can impact weather changes and rainfall.
WindSpeed9am	Wind speed at 9 PM	Yes	Morning wind speed may influence weather conditions and rainfall.
WindSpeed3pm	Wind speed at 3 PM	Yes	Afternoon wind speed can affect weather systems and rainfall.
Humidity9am	Humidity at 9 AM	Yes	Morning humidity levels can influence the likelihood of rainfall.

Humidity3pm	Humidity at 3 PM	Yes	Afternoon humidity levels may impact the occurrence of rainfall.
Pressure9am	Atmospheric pressure at 9 AM	Yes	Pressure changes can indicate weather shifts and potential rainfall.
Pressure3pm	Atmospheric pressure at 3 PM	Yes	Afternoon pressure levels can signal weather changes and rainfall.
Cloud9am	Cloud coverage at 9 AM	Yes	Morning cloud coverage can affect sunlight and rainfall patterns.
Cloud3pm	Cloud coverage at 3 PM	Yes	Afternoon cloud coverage may influence weather conditions and rainfall.
Temp9am	Temperature at 9 AM	Yes	Morning temperatures can impact weather conditions and rainfall.
Temp3pm	Temperature at 3 PM	Yes	Afternoon temperatures may affect weather patterns and rainfall.
RainToday	Rainfall today (binary)	Yes	Previous day's rainfall can be a strong indicator of potential rainfall tomorrow.