Model Development Phase Template

Date	20 June 2025
Project Title	Rising water: A Machine Learning Approach to Flood Prediction
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
Temp	Temperature (°C)	Yes	Temperature can influence evaporation and atmospheric pressure, affecting rainfall and flood dynamics.
Humidity	Humidity (%)	Yes	High humidity often correlates with increased rainfall and flood risks.
Cloud Cover	Cloud cover (%)	Yes	Indicates sky conditions; higher coverage may signal more rainfall and potential flooding.

Jan-Feb	Rainfall during January-February (mm)	Yes	Early year rainfall can saturate soil, affecting its capacity to absorb future rain.
Mar-May	Rainfall during March-May (mm)	Yes	. Pre-monsoon rainfall can contribute to ground saturation, indirectly affecting flood risk.
Jun-Sep	Rainfall during June-September (mm)	Yes	Primary monsoon period—direct contributor to flooding events.
Oct-Dec	Rainfall during October-December (mm)	Yes	Post-monsoon rainfall can extend waterlogging or delayed flooding situations.
avgjune	Average rainfall in June (mm)	Yes	Early monsoon performance is a strong early indicator of flood likelihood.
sub	Sub-basin water accumulation	Yes	Indicates local water collection; high values increase flood probability.
flood	Flood occurrence (0: No, 1: Yes	Yes	Target variable for classification—essential for model training and evaluation.