Model Development Phase Template

Date	June 2025
Team ID	SWTID1749841176
Project Title	Online Payment Fraud Detection using Machine Learning
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
step	Represents time step in hours since the beginning of data collection.	Yes	Useful to capture temporal fraud patterns.
type	Gives the type of transaction.	Yes	It is a categorical feature. The type of transaction is a strong indicator of fraud.
amount	Gives the amount being transacted.	Yes	Used to detect transactions of unusual size.

nameOrig	Identifier for the sender.	No	Not useful directly; too granular and might overfit. Consider anonymizing or extracting patterns if needed.
oldbalance Org	Sender's balance before the transaction.	Yes	Helps to understand the transaction's legitimacy (e.g., insufficient funds).
newbalance Orig	Sender's balance after the transaction.	Yes	Can be used in combination with oldbalanceOrg and amount to detect inconsistencies.
nameDest	Identifier for the receiver.	No	Not useful directly; too granular and might overfit. Consider anonymizing or extracting patterns if needed
oldbalance Dest	Recipient's balance before the transaction.	Yes	Useful for pattern detection in recipients.
newbalance Dest	Recipient's balance after the transaction.	Yes	Useful for pattern detection in recipients. Helps identify suspicious behavior (e.g., recipient balance unchanged).
isFraud	Label (target variable).	No	Used only as y during training, not as input.
isFlaggedFr aud	Whether the transaction was flagged by the system.	No	Leaky feature — if your goal is to predict fraud before the system flags it, this gives away the label.