**Model Development Phase**

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| --- | --- |
| Date | 5 July 2025 |
| Team ID | SWTID1749620997 |
| Project Title | Online Payments Fraud Detection |
| Maximum Marks | 5 Marks |

**Feature Selection Report**

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** |
| step | Time step at which the transaction occurred (e.g., hour in simulation) | Yes | Selected because time can influence fraud patterns (e.g., fraud may occur more during off-hours). |
| type | Type of transaction (e.g., PAYMENT, TRANSFER, CASH\_OUT) | Yes | Selected because certain transaction types like TRANSFER and CASH\_OUT are more prone to fraud. |
| amount | Transaction amount | Yes | Selected because unusually large or small amounts may indicate fraud. |
| oldbalanceOrg | Sender’s account balance before the transaction | Yes | Selected to detect if accounts are suddenly emptied, which is suspicious. |
| newbalanceOrig | Sender’s account balance after the transaction | Yes | Selected to identify inconsistent balance updates relative to transaction amount. |
| |  | | --- | | oldbalanceD  est | | |  | | --- | | Recipient’s account balance before the transaction | | Yes | Selected to identify inactive accounts suddenly receiving funds. |
| newbalanceDest | Recipient’s account balance after the transaction | Yes | Selected to verify whether the transaction amount was actually credited. |
| isFraud | System-generated flag indicating suspicious transaction | Yes | Selected as an additional feature that might help the model catch fraud signals early. |