# Model Development Phase Template

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| Date | 10 July 2024 |
| Team ID | 739797 |
| Project Title | **TRAFFICTELLIGANCE - Advanced Traffic Volume Estimation Wi        th   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 |
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| Traffic_ID | Unique identifier for each traffic data | No | For predicting the traffic patterns, a Loan ID is not required. |
| Vehicle_Count | Number of vehicles passing through a point | Yes | Essential for understanding traffic volume congestion. |
| Average_Speed | Average speed of vehicles | Yes | Crucial for assessing traffic flow and identifying slowdowns |
| Accident_Count | Number of accidents | Yes | Important for identifying high risk areas and improving safety measures |

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| Wheather_Condition | Wheather conditions during data collection | Yes | Wheather impacts traffic patterns and road safety. |
| Road_Type | Type of road(e.g.,highway, urban street) | Yes | Different types have varying traffic behaviors and capacity. |

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| Time_of_Day | Time at which data Was collected | Yes | Traffic patterns change throughout the day, influencing peak and offpeak periods . |
| Day_of_Week | Day of the week On which data was collected | Yes | Traffic varies by weekdays and weekends, important for trend analysis. |
| Event_Proximity | Proximity o special events or holidays | Yes | Special events can cause a typical traffic patterns. |
| Lane_Count | Number of lanes | Yes | More lanes typically handle higher traffic volumes, affecting flow and congestion. |
| Signal_Timing | Traffic signal timing at intersections | Yes | Signal timing impacts vehicle flow and stop durations |