**Model Development Phase Template**

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| Date | 15 October 2024 |
| Team ID | LTVIP2024TMID24789 |
| Project Title | TrafficTelligence: Advanced Traffic Volume Estimation with 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.

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| **Feature** | **Description** | **Selected (Yes/No)** | **Reasoning** |
| Holiday | Indicates if the day was a holiday | Yes | Traffic volume can differ significantly on holidays. |
| Temperature | Temperature in Kelvin | Yes | Weather conditions such as temperature can affect traffic patterns. |
| Rain | Amount of rain in millimeters | Yes | Rain affects driving conditions, which can influence traffic volume. |
| Snow | Amount of snow in millimeters | Yes | Snow impacts road conditions, hence affecting traffic. |
| Weather | Weather condition (e.g., clouds, clear) | Yes | Weather conditions affect traffic flow and driver behavior. |
| Date | The date of traffic data recording | No | Date by itself might not provide much insight without further aggregation. |
| Time | The time of day | Yes | Traffic volume varies significantly based on the time of day (e.g., rush hours). |
| Traffic Volume | The recorded traffic volume | No | This is the target variable we are predicting, not a feature to be selected. |