**Model Development Phase Template**

|  |  |
| --- | --- |
| Date | 15 August 2024 |
| Team ID | LTVIP2024TMID24789 |
| Project Title | TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks | 6 Marks |

**Model Selection Report**

In the forthcoming Model Selection Report, various models will be outlined, detailing their descriptions, hyperparameters, and performance metrics, including Accuracy or F1 Score. This comprehensive report will provide insights into the chosen models and their effectiveness.

**Model Selection Report:**

|  |  |  |  |
| --- | --- | --- | --- |
| **Model** | **Description** | **Hyperparameters** | **Performance Metric (e.g., Accuracy, F1 Score)** |
| Random Forest | Ensemble learning algorithm that builds multiple decision trees and combines their predictions to improve accuracy and prevent overfitting | --- | Accuracy score=80% |
| XGBoost | Gradient boosting model used for better accuracy | --- | Accuracy score=80% |
| Decision Tree | Decision tree for predicting traffic volume | **---** | Accuracy score=68% |