**Data Collection and Preprocessing Phase**

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| Date | 15 October 2024 |
| Team ID | LTVIP2024TMID24789 |
| Project Title | TrafficTelligence: Advanced Traffic Volume Estimation with Machine Learning |
| Maximum Marks | 2 Marks |

**Data Collection Plan & Raw Data Sources Identification Template**

Elevate your data strategy with the Data Collection plan and the Raw Data Sources report, ensuring meticulous data curation and integrity for informed decision-making in every analysis and decision-making endeavor.

**Data Collection Plan Template**

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| **Section** | **Description** |
| Project Overview | **TrafficTelligence** aims to develop a machine learning-based solution for real-time traffic volume estimation. By integrating data from traffic cameras, GPS, and IoT sensors, the project seeks to provide accurate predictions of traffic patterns and congestion. The solution will feature a user-friendly dashboard for city planners and commuters, enabling proactive traffic management and enhancing urban mobility. With a focus on continuous learning and scalability, **TrafficTelligence** will support sustainable urban development by reducing congestion and emissions. |
| Data Collection Plan | * Location data from vehicles to track movement and analyze traffic patterns. * Roadside sensors that measure vehicle speeds, counts, and environmental conditions. |
| Raw Data Sources Identified | Information sourced from weather stations and meteorological services, including temperature, precipitation, and wind conditions. This data helps analyze the impact of weather on traffic patterns.  Location information collected from vehicles equipped with GPS devices. This data provides insights into vehicle movements, travel times, and congestion patterns across different routes. |

**Raw Data Sources Template**

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| --- | --- | --- | --- | --- | --- |
| **Source Name** | **Description** | **Location/URL** | **Format** | **Size** | **Access Permissions** |
| Smart Internz Dataset | This dataset includes location and speed data collected from vehicles equipped with GPS devices, tracking their movements over time. | https://drive.google.com/file/d/19GB6dD8TuX5riAk2PiWItRCz\_jm1cx-j/view?usp=sharing | CSV | 2.2MB | Public |