**Project Design Phase**

**Solution Architecture**

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| 📌 Project Name | Public Transport Management System |

**Solution Architecture**

The **CRM Application For Public Transport Management System** architecture bridges the gap between the operational needs of a transport department and the capabilities of Salesforce technology. It aims to:

* Provide the best technology solution to centralize and streamline public transport administration.
* Clearly describe the structure, behavior, and data flow of the system for all stakeholders (administrators, drivers, managers).
* Define functional features, development phases, and solution requirements specific to transport operations.
* Deliver specifications for managing and deploying the solution effectively, ensuring data accuracy and real-time insights.

**Architecture Overview**

The solution consists of the following key components within the Salesforce platform:

* **User Interface:** Salesforce Lightning platform providing role-based access for Transport Department Administrators, Operations Managers, Drivers, and Conductors. This ensures tailored user experiences for managing employees, buses, trips, and accessing reports.
* **Application Logic:** Salesforce Flows and validation rules automate critical operational processes such as calculating total ticket fares per trip, assigning resources (drivers, conductors, buses) to daily trips, and enforcing data integrity rules for all records.
* **Data Storage:** Salesforce Object Store, securely holding all essential public transport data, including custom objects for Employees, Bus Stations, Buses, Routes, Ticket Fares, and Daily Bus Trips, along with their established relationships.
* **Reporting & Analytics:** Real-time dashboards and comprehensive reports utilizing Salesforce native reporting tools. These provide key metrics on passenger counts, revenue, trip efficiency, and resource utilization, enabling data-driven decision-making.
* **External APIs (future scope):** Potential integration points for future enhancements such as external ticketing systems, real-time GPS tracking for buses, or external financial systems for deeper revenue analysis.

