**Project Documentation**

**Project Title :**

A CRM Application for Public Transport Management System

**College Name :**

Annamacharya Institute of Technology and Sciences, Tirupati

**Team Details:**

**Team ID :** LTVIP2025TMID29096

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**Platform & Technologies**

* **Platform**: Salesforce CRM (Salesforce Developer Edition)
* **Technology Stack**:
  + Salesforce Objects (Standard & Custom Objects)
  + Salesforce Dashboards & Reports
  + Role-Based Access & Profiles
  + Incognito Testing for Role Simulation

**Project Overview**

The **CRM Application for Public Transport Management System** is designed to centralize and streamline operational data for the Regional Transport Corporation (RTC). The system allows departments to efficiently manage bus stations, employee shifts, trips, fares, and revenue within a secure, accessible, and role-based Salesforce application.

**Problem Statement**

The RTC currently faces operational challenges due to fragmented data and manual processes. This results in:

* Inconsistent and redundant data across departments.
* Difficulty in scheduling and managing staff and trips.
* Inaccurate fare calculations and revenue tracking.
* Limited ability to assess operational efficiency and performance in real-time.

**Proposed Solution**

The proposed solution is a **Salesforce CRM-based application** that:

* Enables structured role-based access for employees, drivers, and conductors.
* Provides a central database for bus stations, staff, buses, trips, and fare details.
* Enables recording and analysis of daily trips, passenger counts, and total fare amounts.
* Provides dashboards and reports for quick access to actionable operational insights.
* Enhances accountability, data integrity, and overall operational efficiency.

**Methodology**

The project was implemented following an **Development Framework**, focusing on incremental and iterative delivery:

1. **Requirement Gathering**:
   * Identified stakeholders and conducted interviews.
   * Created user stories and requirement specifications.
2. **System Design**:
   * Created entity-relationship and object design for bus stations, employees, trips, and fares.
   * Defined role-based access control and data relationships.
3. **Implementation**:
   * Developed custom objects, fields, and relationships within Salesforce.
   * Created user interfaces, layouts, and data entry forms.
   * Developed dashboards and reports for analytics.
4. **Testing & Validation**:
   * Created sample data for bus stations, trips, and fares.
   * Tested role-based access using incognito windows.
   * Verified results against requirements and adjusted as needed.
5. **Deployment & Presentation**:
   * Finalized the solution for review and presentation.
   * Created user guides and deployment instructions.

**Future Scope**

The solution can be further enhanced by:

* **Integration** with GPS and IoT platforms for real-time bus tracking.
* Adding a mobile application for drivers and staff for seamless data entry.
* Incorporation of automated fare calculation and predictive analytics.
* Expanding the system for multi-city and multi-regional transport departments.
* Incorporation of AI-based forecasting for passenger and revenue planning.

**References**

* [Salesforce Developer Documentation](https://developer.salesforce.com/)
* [Salesforce Trailhead](https://trailhead.salesforce.com/)
* Salesforce Architecture and Best Practices Guides
* Internal Stakeholder Interviews and RTC Operational Reports