

KSRTC MANAGEMENT SYSTEM

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ABSTRACT

The Kerala State Road Transport Corporation (KSRTC) information system is a sophisticated and comprehensive platform designed to optimize the management of the state's road transport services. Operating on three key levels—Admin, Terminal, and Staff—the system facilitates secure and efficient administration. The Admin module serves as the central hub for overseeing administrative tasks, including the registration of terminals, buses, and the strategic allocation of routes and staff. Terminals utilize the system to manage personnel, buses, and routes, enhancing security, addressing financial collections, and managing customer complaints. Individual staff members, including drivers and terminal personnel, engage with tailored functionality, enabling seamless communication and efficient issue resolution. In summary, the KSRTC information system aims to enhance transparency, operational efficiency, and overall customer satisfaction within the Kerala State Road Transport Corporation, offering a cohesive and adaptive solution for transportation administration.

Modules

1. Admin Functionality:

Login:

Authenticate and authorize administrative access.

Register KSRTC Terminal:

Add new bus terminals to the system.

Register Bus:

Add information about new buses, such as registration details, capacity, etc.

Bus Route Allocation:

Assign routes to specific buses.

Staff Allocation to Terminal:

Assign staff (drivers, conductors, etc.) to specific terminals.

Register and Manage Workshop:

Add and manage information about workshops responsible for bus maintenance.

View Repair Details:

Access information regarding bus repairs and maintenance.

2. Terminal Functionality:

Login:

Authenticate and authorize terminal access.

View Allocated Staff:

See the staff members assigned to the terminal.

View Allocated Bus and Route:

Check the buses assigned to the terminal and their respective routes.

Change Password:

Update terminal login credentials.

Assign Bus to Staff:

Allocate buses to specific staff members.

View Daily Collection:

Access information on the terminal's daily revenue collection.

View Complaint and Post Replay:

Review and respond to user complaints.

3. Staff Functionality:

Register:

Create a staff account with necessary details.

Login:

Authenticate and authorize staff access.

Edit Profile:

Update personal information.

View Allocated Bus and Its Route:

Check the assigned bus and its designated route.

Post Daily Collection:

Enter daily revenue collection data.

Post Complaint and View Replay:

Submit user complaints and view responses.

4. Workshop Functionality:**Login:**

Authenticate and authorize workshop access.

View Breakdown Details and Response:

Access information on breakdowns and responses.

Update Repair Details:

Enter and manage details of bus repairs and maintenance.

5. User Functionality:**View Bus Details:**

Access information about buses, such as routes, schedules, and availability.

View Route:

View Route of buses

Additional technologies to be used:**Location Tracking:**

Location tracking involves monitoring and recording the geographical position of an object or person over time. This can be achieved through the use of GPS technology, RFID (Radio-

Frequency Identification), or other tracking devices. Location tracking is commonly used in logistics, transportation, and personal devices like smartphones for navigation.

Route Optimization:

Implement machine learning algorithms to optimize bus routes based on real-time traffic data, historical patterns, and current conditions. This can improve efficiency and reduce travel time.