SchoolRun Platform – System Logic & User Roles Specification
Version 1.0 | January 2026

Overview
SchoolRun is a web-based platform that connects parents of children (ages 4–14) with verified drivers for safe, reliable, and transparent school transportation in urban areas. The system automates matching, real-time tracking, pricing, performance scoring, and communication — all while prioritizing child safety, parent trust, and driver fairness.

The platform serves three user roles: Parent/Guardian, Driver, and System Admin.

User Roles & Responsibilities

1. Parent / Guardian
Purpose: Request, monitor, and manage school transport for their children.

Key Responsibilities:
• Create and verify account with contact details and residential address (no postal code).
• Register one or more children with full name, date of birth, school, and pickup zone.
• View eligible drivers serving both the pickup zone and school.
• Select a driver (subject to driver approval).
• Receive real-time notifications and live map tracking.
• Rate the driver after each completed round trip.
• Access full trip history.

Permissions:
• View only their own children's data and trips.
• Cannot view other parents' information or driver earnings.
• Can edit child details or cancel future bookings.

2. Driver
Purpose: Provide safe, punctual school transport within self-defined service zones.

Key Responsibilities:
• Complete onboarding with ID, license, vehicle details, zones, and schools.
• Accept or decline parent requests.
• Start morning and afternoon trips via the app.
• Confirm arrival, pickup, and drop-off events.
• Maintain vehicle safety and punctuality.
• View trip history, earnings, and performance score.

Permissions:
• View only trips they operate.
• See child first name + initial only.
• Cannot see full parent contact details.
• Cannot edit route pricing.

3. System Admin
Purpose: Oversee platform integrity, safety, and operations.

Key Responsibilities:

- Approve or reject driver applications.
- Manage pickup zones and schools.
- Monitor driver performance scores.
- Resolve disputes using logs.
- Ensure compliance with regulations.
- Generate operational reports.

Permissions:
- Full read access with audit logging.
- Cannot modify trip events or ratings.
- Can suspend users for violations.

Core System Logic

User Onboarding
Parents submit name, contact, address, and relationship. Email and SMS verification required.
Drivers submit ID, license, vehicle info, zones, and schools. Admin approval required.
No postal codes collected.

Matching Logic
A driver appears if the child's pickup zone and school are both serviced by the driver and a seat is available.
Matching is real-time and dynamic using predefined zones and schools only.

Pricing Model
Tier 1: ≤25 km daily round-trip → $28/month per child.
Tier 2: >25 km daily round-trip → $45/month per child.
Distance calculated using OpenRouteService driving distance.
Price locked at booking.

Booking Workflow
Parent selects driver → request sent → driver accepts within 48h → seat reserved → parent notified.
No auto-assignment.

Trip Execution
Morning and afternoon flows include GPS tracking, arrival, pickup, drop-off confirmations, and notifications.
Real-time tracking updates every 15 seconds using Leaflet and OpenStreetMap.

Post-Trip Actions
Parents may submit a 1–5 star rating within 24 hours. One rating per child per trip day.

Driver Performance Score
Parent Rating (60%), Reliability (20%), Punctuality (20%). Total score out of 100, calculated nightly.

Trip History
Stored minimum 12 months. Parents and drivers can view their respective histories. Immutable audit trail maintained.

Notifications

Sent via Resend (email) and Soketi (in-app) for verification, trip events, requests, reminders, and alerts.

Privacy & Safety

No exact home addresses shared. Child data protected. Ratings anonymous. Documents encrypted. GDPR compliant.

Technology Stack

Backend: Laravel 10. Database: MySQL/PostgreSQL. Real-time: Soketi. Maps: Leaflet + OSM. Distance: OpenRouteService. Email: Resend. Hosting: Railway or Render.

Success Metrics

Parents feel safe, drivers earn fairly, admins maintain quality, zero tolerance for unsafe practices.

This document is the single source of truth for system behavior, user roles, and business logic.