# RentSmart Car Rental

The RentSmart application platform is a comprehensive, scalable solution designed to streamline and automate car rental operations. Core requirements include:

1. **Vehicle and Fleet Management**: Track vehicle availability, usage, maintenance schedules, and integrate GPS tracking for real-time location and status updates.
2. **Customer Management**: Centralize customer profiles, manage registrations, segment customers, and provide loyalty programs, personalized offers, and robust communication (notifications, reminders).
3. **Booking and Reservations**: Allow seamless online and in-branch bookings, with features for selecting vehicles, optional extras, and flexible pickup/return options.
4. **Billing and Payments**: Automate billing, support multiple payment methods, manage security deposits, and handle refunds, late fees, and mileage-based charges.
5. **Accounting and Financial Tracking**: Record revenue, expenses, refunds, and taxes, while generating financial reports and maintaining compliance with regulatory requirements.
6. **Maintenance and Repair Management**: Track fleet maintenance history, schedule repairs, and record repair costs, ensuring vehicles remain rental-ready.
7. **Integration with External Services**: Connect to payment gateways, third-party insurance, vehicle maintenance providers, and other necessary external services.
8. **Data Security and Compliance**: Secure customer data, ensure privacy compliance, and offer role-based access for sensitive data and actions.
9. **Reporting and Analytics**: Generate operational and financial insights, track fleet performance, customer trends, and optimize business decisions based on data.

This platform will provide a seamless experience for customers and operational efficiency for RentSmart, ensuring scalability and flexibility for future growth.