



# RENTAL CAR E-COMMERCE WEBSITE





# Introduction

This document provides a focused overview of the user workflow and technical processes for the Rental Car E-Commerce website.

## Key User Workflow

### Homepage:

Users browse rental cars with filters for category, price range, and rental duration.

### Car Details:

Users view car details like name, category, price, features (e.g., GPS, Hybrid), and availability.





### Adding to Cart:

Users add cars to the cart after signing in or registering.

### Checkout Process:

Users review cart details, choose rental periods, and make payments.

### Booking:

Booking confirmation, payment, and shipment tracking are provided.







## Car Rental User Workflow



### Homepage Browsing

Users browse rental cars with filters for category, price range, and rental duration.



### Viewing Car Details

Users view car details like name, category, price, features, and availability.



### Adding to Cart

Users add cars to the cart after signing in or registering.



### Checkout Process

Users review cart details, choose rental periods, and make payments.



### Post-Booking Confirmation

Booking confirmation, payment, and shipment tracking are provided.





## BACKEND WORKFLOW

SANITY CMS:

STORES CAR DETAILS, BOOKINGS, AND CUSTOMER DATA.

PAYMENT GATEWAY:

PROCESSES SECURE PAYMENTS AND SAVES TRANSACTION DETAILS.

SHIPMENT TRACKING:

UPDATES CAR STATUS TO “BOOKED” AND PROVIDES DELIVERY UPDATES.





# Car Rental Backend Workflow



Store Car  
Details

Sanity CMS  
stores car  
details,  
bookings, and  
customer data

Process  
Payments

Payment  
Gateway  
processes  
secure  
payments and  
saves  
transaction  
details

Update  
Shipment  
Status

Shipment  
Tracking  
updates car  
status to  
"Booked" and  
provides  
delivery  
updates



# SYSTEM ARCHITECTURE



OVERVIEW:

FRONTEND:

USER INTERFACE BUILT WITH REACT/NEXT.JS.

HANDLES BROWSING, BOOKING, AND USER INTERACTIONS.

SANITY CMS:  
MANAGES ALL CAR-RELATED AND CUSTOMER DATA.

APIS:  
INCLUDES PAYMENT, SHIPMENT TRACKING, AND CAR AVAILABILITY SERVICES.



# High-Level Architecture



[User Interface (Frontend - React/Next.js)]

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[Sanity CMS - Content Management System]

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[Car Availability API]

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[Third-Party APIs: Payment Gateway, AI Recommendations, Shipment]







## Page Development



Homepage Creation

Car Listing Page

Details Page

## Frontend Development



## Project Setup

React/Next.js Setup

Tailwind CSS Integration



## Functionality Implementation

Cart Functionality

Checkout Process





- Technical Roadmap
- Frontend
- Setup React/Next.js project with Tailwind CSS.
- Build homepage, car listing, and details pages.
- Create cart and checkout functionality.

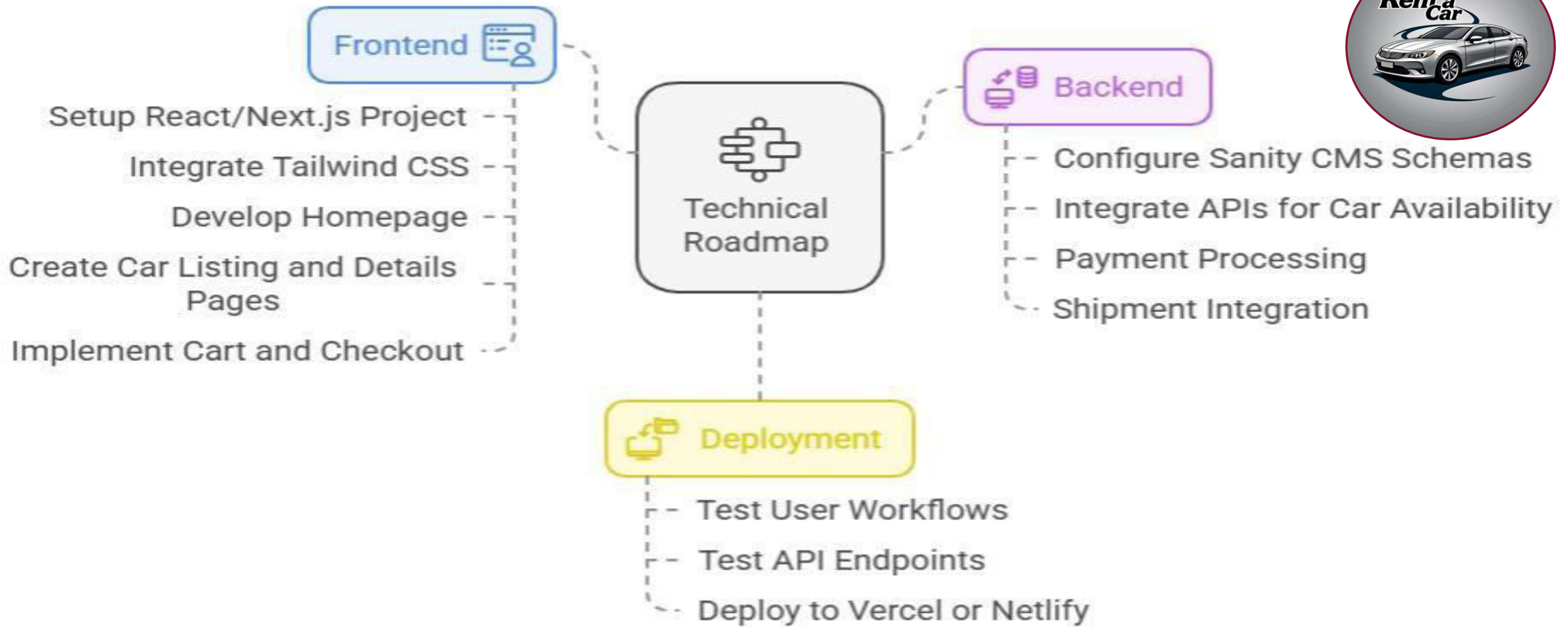




- Backend
- Configure Sanity CMS schemas for cars and bookings.
- Integrate APIs for car availability, payments, and shipment.
- Deployment
- Test user workflows and API endpoints.
- Deploy to platforms like Vercel or Netlify.









# Key API Endpoints

Endpoint	Method	Purpose
GET /cars	GET	Fetch all cars
GET /cars/:id	GET	Fetch specific car
POST /bookings	POST	Create a booking
POST /payments	POST	Process payment
GET /shipment/:id	GET	Fetch shipment details





## Sanity Schema Examples

Cars Schema : export default {

  name: 'car',

  type: 'document',

  fields: [

    { name: 'name', type: 'string', title: 'Car Name' },

    { name: 'price', type: 'number', title: 'Price' },

    { name: 'availability', type: 'boolean', title: 'Availability' },







Customer Schema : export default {

name: 'customer',

type: 'document',

fields: [

{ name: 'name', type: 'string', title: 'Customer Name' },

{ name: 'email', type: 'string', title: 'Email Address' },

{ name: 'phone', type: 'string', title: 'Phone Number' },

{ name: 'address', type: 'string', title: 'Address' },

{ name: 'drivingLicense', type: 'string', title: 'Driving License Number' },





# CONCLUSION

THIS DOCUMENT PROVIDES A CONCISE ROADMAP FOR IMPLEMENTING A USER-FRIENDLY AND SCALABLE RENTAL CAR E-COMMERCE PLATFORM.

