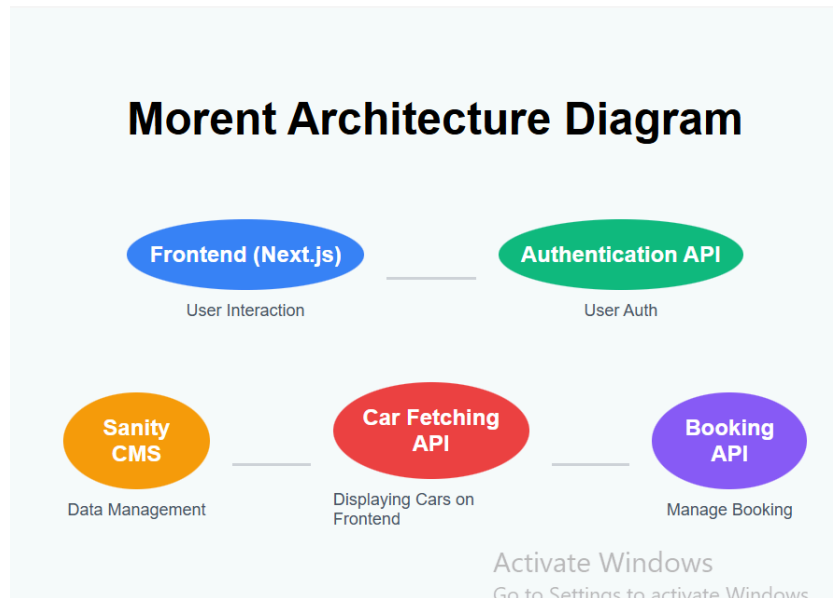


# Marketplace Technical Foundation - MORENT

## 1. System Architecture Overview



### Component Roles

- **Frontend (Next.js):** Provides user interaction and interface components.
- **Tailwind CSS & ShadCN UI:** Handles styling and UI components.
- **Authentication API:** Manages user registration and login processes.
- **Sanity CMS:** Acts as the content management system to store user data and booking history.
- **Car Fetching API:** Retrieves car listings and details for display on the frontend.
- **Booking API:** Handles creation, updating, and storage of booking information.

## 2. Key Workflows

### 2.1 User Browsing and Booking a Car

1. **User Browsing Cars**
  - User interacts with the frontend to view car listings.
  - Frontend calls `/api/cars` to fetch available cars.
  - Data is displayed using Tailwind CSS & ShadCN components.

## 2. User Logs In

- User authenticates via Google using `/api/auth`.
- Authentication API creates a user in Sanity CMS.

## 3. User Creates a Booking

- User selects a car and provides booking details.
- Frontend sends booking information to `/api/bookings`.
- Booking API saves booking data in Sanity CMS.

# 4. API Endpoints

Endpoint	Method	Purpose	Response Example
<code>/api/auth</code>	GET, POST	Authenticates users and stores them in Sanity	<code>{ "status": "Customer created successfully" }</code>
<code>/api/bookings</code>	POST	Creates a booking in Sanity	<code>{ "status": "Booking created successfully" }</code>
<code>/api/cars</code>	GET	Fetches car listings	<code>{ "status": "Cars fetched successfully" }</code>

## 5. Sanity Schema

### Cars Schema

```
export default {  
  name: 'car',  
  type: 'document',  
  fields: [  
    { name: 'name', type: 'string', title: 'Car Name' },  
    { name: 'brand', type: 'string', title: 'Brand' },  
    { name: 'carType', type: 'string', title: 'Car Type' },  
    { name: 'fuelCapacity', type: 'string', title: 'Fuel Capacity' },  
    { name: 'transmission', type: 'string', title: 'Transmission' },  
    { name: 'seatingCapacity', type: 'number', title: 'Seating Capacity' },  
    { name: 'pricePerDay', type: 'number', title: 'Price Per Day' },  
    { name: 'originalPrice', type: 'number', title: 'Original Price' },  
    { name: 'location', type: 'reference', to: [{ type: 'location' }] },  
    { name: 'carStatus', type: 'string', title: 'Car Status' },  
    { name: 'tags', type: 'array', of: [{ type: 'string' }], title: 'Tags' },  
    { name: 'carImage', type: 'image', options: { hotspot: true }, title: 'Car Image' }  
  ],  
};
```

## 6. Technical Roadmap

### Milestones

- 1. Frontend Setup:**
  - Implement Next.js and Tailwind CSS.
  - Integrate ShadCN UI components.
- 2. API Integration:**
  - Connect Authentication, Car Fetching, and Booking APIs.
- 3. Sanity CMS Setup:**
  - Design and implement schemas for products and bookings.
- 4. Testing and Debugging:**
  - Conduct end-to-end testing of user workflows.
- 5. Deployment:**
  - Deploy the system using a cloud-based solution.