

Title: Rent A Car Schema

Day: 2

Car listing Schema

```
export default {
  name: "car",
  title: "Car",
  type: "document",
  fields: [
    {
      name: "name",
      title: "Car Name",
      type: "string",
    },
    {
      name: "brand",
      title: "Brand",
      type: "string",
    },
    {
      name: "type",
      title: "Car Type",
      type: "string",
      options: {
        list: [
          { title: "Sport", value: "Sport" },
          { title: "Sedan", value: "Sedan" },
          { title: "Electric", value: "Electric" },
          { title: "Gasoline", value: "Gasoline" },
          { title: "Diesel", value: "Diesel" },
          { title: "Hybrid", value: "Hybrid" },
          { title: "SUV", value: "SUV" },
          { title: "Hatchback", value: "Hatchback" },
        ],
      },
    },
    {
      name: "fuel_capacity",
      title: "Fuel Capacity",
      type: "string",
    },
    {
      name: "transmission",
      title: "Transmission",
      type: "string",
      options: {
        list: [{ title: "Manual", value: "Manual" }, { title: "Automatic", value: "Automatic" }],
      },
    },
  ],
}
```

```

    },
  },
  {
    name: "seating_capacity",
    title: "Seating Capacity",
    type: "string",
  },
  {
    name: "price_per_day",
    title: "Price Per Day",
    type: "string",
  },
  {
    name: "original_price",
    title: "Original Price",
    type: "string",
  },
  {
    name: "image_url",
    title: "Car Image",
    type: "url",
  },
  {
    name: "tags",
    title: "Tags",
    type: "array",
    of: [{ type: "string" }],
  },
],
};

```

Booking Schema

The **Booking Schema** now references the **Car Listing Schema** directly, ensuring consistency with the car data.

```

export default {
  name: 'booking'
  type: 'document',
  title: 'Booking',
  fields: [
    {
      name: 'user', type: 'reference',
      to: [{ type: 'user' }], title: 'User', description: 'The user making the booking.'
    },
    {

```

```

    name: 'car',type: 'reference',to: [{ type: 'car' }],title: 'Car', description: 'The car being booked.'
  },
  {
    name: 'pickupLocation', type: 'string',title: 'Pickup Location',
    description: 'Location where the car will be picked up.'
  },
  {
    name: 'pickupDate',type: 'datetime',title: 'Pickup Date',
    description: 'Date and time of car pickup.'
  },
  {
    name: 'dropoffDate', type: 'datetime',title: 'Drop-off Date',
    description: 'Date and time of car drop-off.'
  },
  {
    name: 'totalCost',type: 'number',title: 'Total Cost',
    description: 'Total cost of the booking.'
  },
  {
    name: 'paymentStatus',type: 'string',title: 'Payment Status',
    description: 'Status of the payment for the booking.',
    options: {
      list: ['Pending', 'Paid', 'Failed'],
      layout: 'radio'
    }
  },
  {
    name: 'bookingStatus',type: 'string',title: 'Booking Status',
    description: 'Status of the booking.',
    options: {
      list: ['Pending', 'Confirmed', 'Completed', 'Canceled'],
      layout: 'radio'
    }
  }
]
};

```

Fetch All Cars

- **Endpoint:** /cars
- **Method:** GET
- **Description:** Fetches all available cars from Sanity CMS.

- **Response:**

```
[
  {
    "id": 1,
    "name": "Toyota Corolla",
    "brand": "Toyota",
    "type": "Sedan",
    "fuel_capacity": "50L",
    "transmission": "Automatic",
    "seating_capacity": "5",
    "price_per_day": "50",
    "original_price": "20000",
    "image_url": "https://example.com/corolla.jpg",
    "tags": ["economy", "automatic"]
  }
]
```

Create a Booking

- **Endpoint:** /bookings
- **Method:** POST
- **Description:** Creates a new booking in Sanity CMS.
- **Payload:**

```
{
  "userId": "123",
  "carId": "456",
  "pickupLocation": "City Center",
  "pickupDate": "2025-02-10T10:00:00Z",
  "dropoffDate": "2025-02-15T10:00:00Z",
  "totalCost": 250
}
```

- **Response:**

```
{
  "bookingId": "789",
  "status": "Success"
}
```

Process Payment

- **Endpoint:** /payment
- **Method:** POST
- **Description:** Processes the payment for a booking.
- **Payload:**

```
{
  "bookingId": "789",
  "paymentAmount": 250,
  "paymentMethod": "Credit Card"
}
```

- **Response:**

```
{
  "paymentStatus": "Success",
  "paymentId": "12345"
}
```

1. User Registration

- **Step 1:** User signs up (name, email, password).
- **Step 2:** User profile data saved in Sanity CMS.
- **Step 3:** Confirmation email sent to the user (optional).

2. Car Browsing

- **Step 1:** User filters and views available cars.
- **Step 2:** Frontend queries Sanity CMS for car listings.
- **Step 3:** Car details fetched and displayed.

3. Booking Process

- **Step 1:** User selects a car and enters booking details.
- **Step 2:** Booking data saved in Sanity CMS.
- **Step 3:** Payment processed via Stripe API.
- **Step 4:** Booking confirmation displayed to the user.

4. Payment Process

- **Step 1:** User enters payment details.
- **Step 2:** Payment processed via Stripe API.
- **Step 3:** Payment status updated in Sanity CMS.

System Architecture Diagram

The system architecture remains the same, with the following components interacting:

