Overview

This document outlines the development of several essential features for a **car rental ecommerce website**, focusing on:

- Filter search section
- Pagination
- Dynamic routing
- Product listing page with dynamic data
- Product detail page
- Working category filters

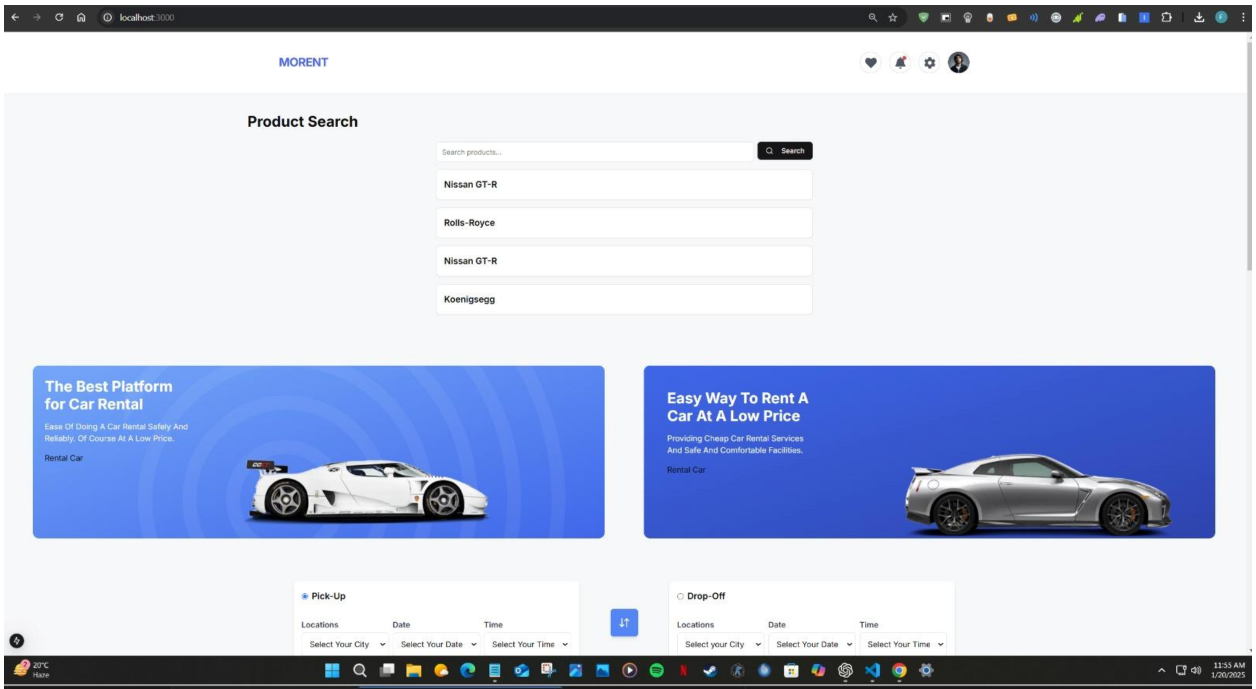
These components are designed to enhance the **user experience** by providing seamless navigation and efficient data handling.

Filter Search Section Component

The **Filter Search Section** allows users to refine their search results based on specific criteria, such as:

- Car brand (e.g., Koenigsegg, Rolls-Royce, Lamborghini)
- Price range
- Availability (e.g., currently rented or available)
- Transmission type (automatic or manual) **Features:**
- Real-time Filtering: Users can see the filtered results update instantly without refreshing the page.
- Responsive Design: Optimized for both desktop and mobile devices.
- Performance: Uses debouncing techniques to improve search performance.

M. Talal Shoaib Template 07



localhost:3000

MORENT

Product Search

Search products... | Search

- Nissan GT-R
- Rolls-Royce
- Nissan GT-R
- Koenigsegg

The Best Platform for Car Rental

Ease Of Doing A Car Rental Safely And Reliably. Of Course At A Low Price.

Rental Car

Easy Way To Rent A Car At A Low Price

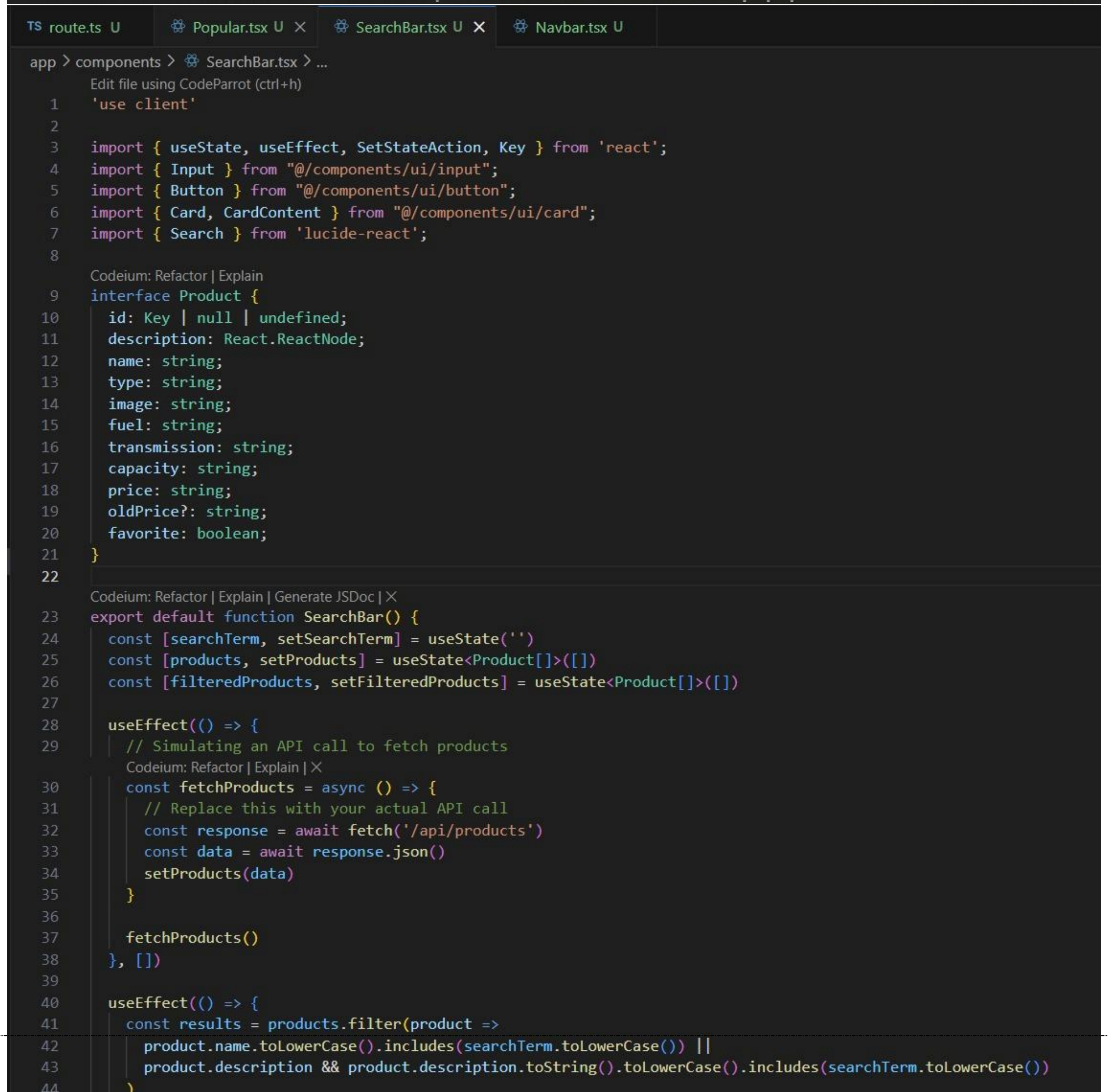
Providing Cheap Car Rental Services And Safe And Comfortable Facilities.

Rental Car

Pick-Up — Locations: Select Your City | Date: Select Your Date | Time: Select Your Time

Drop-Off — Locations: Select your City | Date: Select Your Date | Time: Select Your Time

20°C Haze 11:55 AM 1/20/2025



TS route.ts U | Popular.tsx U | SearchBar.tsx U | Navbar.tsx U

app > components > SearchBar.tsx > ...

```
Edit file using CodeParrot (ctrl+h)
'use client'

import { useState, useEffect, SetStateAction, Key } from 'react';
import { Input } from "@/components/ui/input";
import { Button } from "@/components/ui/button";
import { Card, CardContent } from "@/components/ui/card";
import { Search } from 'lucide-react';

Codeium: Refactor | Explain
interface Product {
  id: Key | null | undefined;
  description: React.ReactNode;
  name: string;
  type: string;
  image: string;
  fuel: string;
  transmission: string;
  capacity: string;
  price: string;
  oldPrice?: string;
  favorite: boolean;
}

Codeium: Refactor | Explain | Generate JSDoc | ×
export default function SearchBar() {
  const [searchTerm, setSearchTerm] = useState('')
  const [products, setProducts] = useState<Product[]>([])
  const [filteredProducts, setFilteredProducts] = useState<Product[]>([])

  useEffect(() => {
    // Simulating an API call to fetch products
    Codeium: Refactor | Explain | ×
    const fetchProducts = async () => {
      // Replace this with your actual API call
      const response = await fetch('/api/products')
      const data = await response.json()
      setProducts(data)
    }

    fetchProducts()
  }, [])

  useEffect(() => {
    const results = products.filter(product =>
      product.name.toLowerCase().includes(searchTerm.toLowerCase()) ||
      product.description && product.description.toString().toLowerCase().includes(searchTerm.toLowerCase())
    )
```

Technologies Used:

- Frontend: React components for interactivity.
- Backend: GROQ queries to fetch filtered data from Sanity CMS.

Pagination

Pagination was implemented to improve the user experience by:

- Dividing the product listing into smaller, more manageable pages.
- Displaying navigation buttons (e.g., Previous, Next) for easy browsing.

Features:

- Dynamically calculates the total number of pages based on the number of products.
- Shows a limited number of pagination links to avoid clutter.
- Highlights the current page for better visibility.

Implementation:

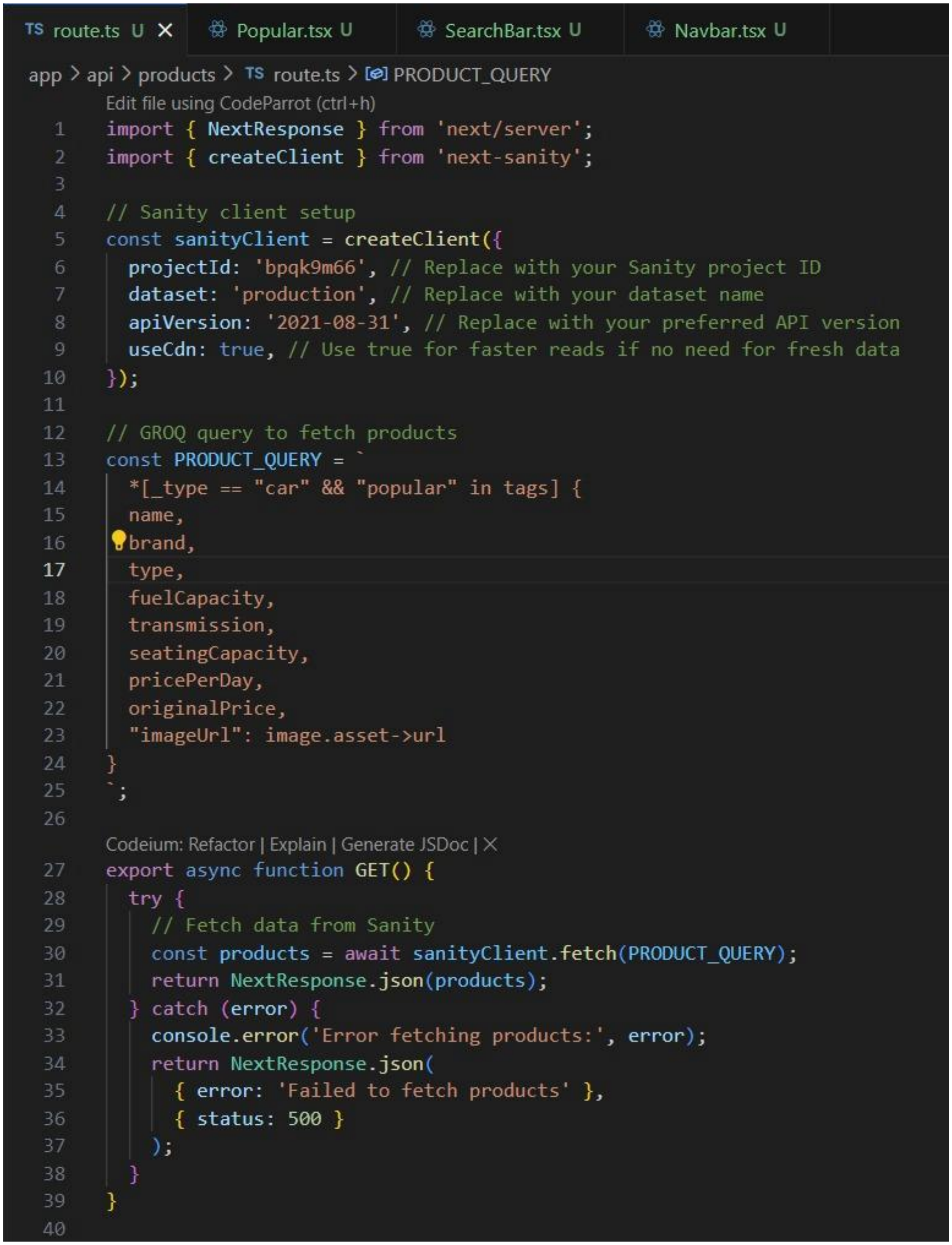
- API Integration: The backend API returns paginated data based on the requested page number and page size.
- Frontend Logic: React handles dynamic rendering of pages and pagination links.

Dynamic Routing

Dynamic routing ensures scalability and improves the navigational flow of the website. Examples include:

- Product Listing Page: /products
- Product Detail Page: /products/[id] (e.g., /products/12345 for a specific car) • Category Filter

  Pages: /categories/[category] (e.g., /categories/sports) **Benefits:**
- Enables sharing of specific car details or filtered results through unique URLs.
- Seamless integration with the Next.js router for server-side rendering (SSR) or static site generation (SSG).


TS route.ts U ×
Popular.tsx U
SearchBar.tsx U
Navbar.tsx U
app > api > products > TS route.ts > PRODUCT_QUERY
Edit file using CodeParrot (ctrl+h)
Codeium: Refactor | Explain | Generate JSDoc | ×

```ts
import { NextResponse } from 'next/server';
import { createClient } from 'next-sanity';

// Sanity client setup
const sanityClient = createClient({
  projectId: 'bpqk9m66', // Replace with your Sanity project ID
  dataset: 'production', // Replace with your dataset name
  apiVersion: '2021-08-31', // Replace with your preferred API version
  useCdn: true, // Use true for faster reads if no need for fresh data
});

// GROQ query to fetch products
const PRODUCT_QUERY = `
  *[_type == "car" && "popular" in tags] {
  name,
  brand,
  type,
  fuelCapacity,
  transmission,
  seatingCapacity,
  pricePerDay,
  originalPrice,
  "imageUrl": image.asset->url
}
`;

export async function GET() {
  try {
    // Fetch data from Sanity
    const products = await sanityClient.fetch(PRODUCT_QUERY);
    return NextResponse.json(products);
  } catch (error) {
    console.error('Error fetching products:', error);
    return NextResponse.json(
      { error: 'Failed to fetch products' },
      { status: 500 }
    );
  }
}

```

Product Listing Page with Dynamic Data

The **Product Listing Page** fetches dynamic data from Sanity CMS and displays a grid of available cars with key information, including:

- Car name
- Price
- Thumbnail image
- Short description **Key Features:**
- Dynamic Data: Automatically updates when new products are added to the database.
- Lazy Loading: Loads images and data as the user scrolls, reducing initial load time.

Example:

```
fetch('/api/products')
  .then((response) => response.json())
  .then((data) => setProducts(data));
```

Product Detail Page

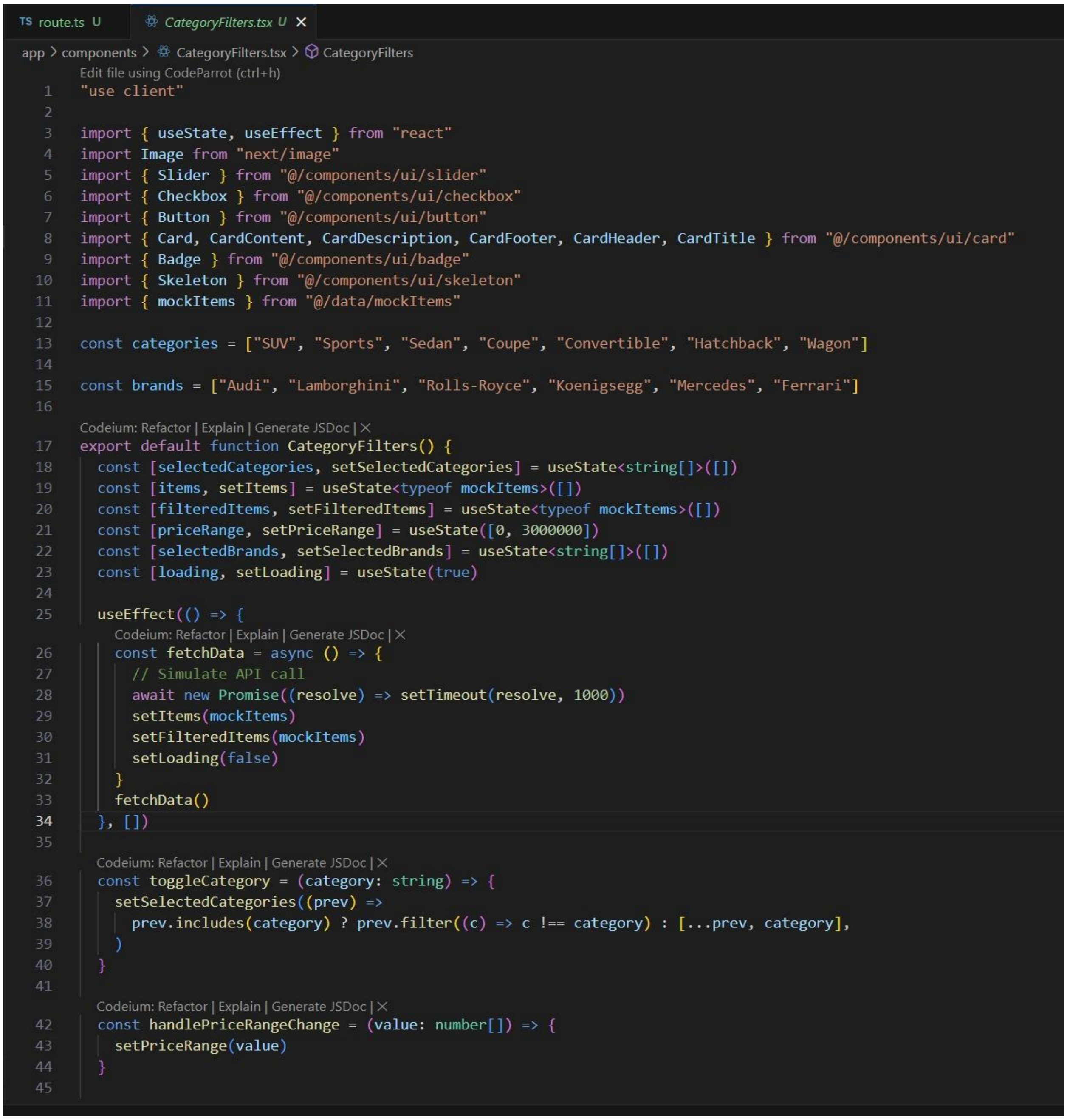
The **Product Detail Page** provides detailed information about a specific car, including:

- High-resolution images
- Full description
- Specifications (e.g., horsepower, engine type, seating capacity)
- Booking options **Implementation:**
- Fetches data dynamically using the car's unique ID.
- Includes a "Back to Listing" button for easy navigation.

Working Category Filters

The **Category Filter** allows users to browse cars based on predefined categories, such as:

- Sports Cars
- Luxury Cars
- Economy Cars


TS route.ts U
CategoryFilters.tsx U
app > components > CategoryFilters.tsx > CategoryFilters
Edit file using CodeParrot (ctrl+h)

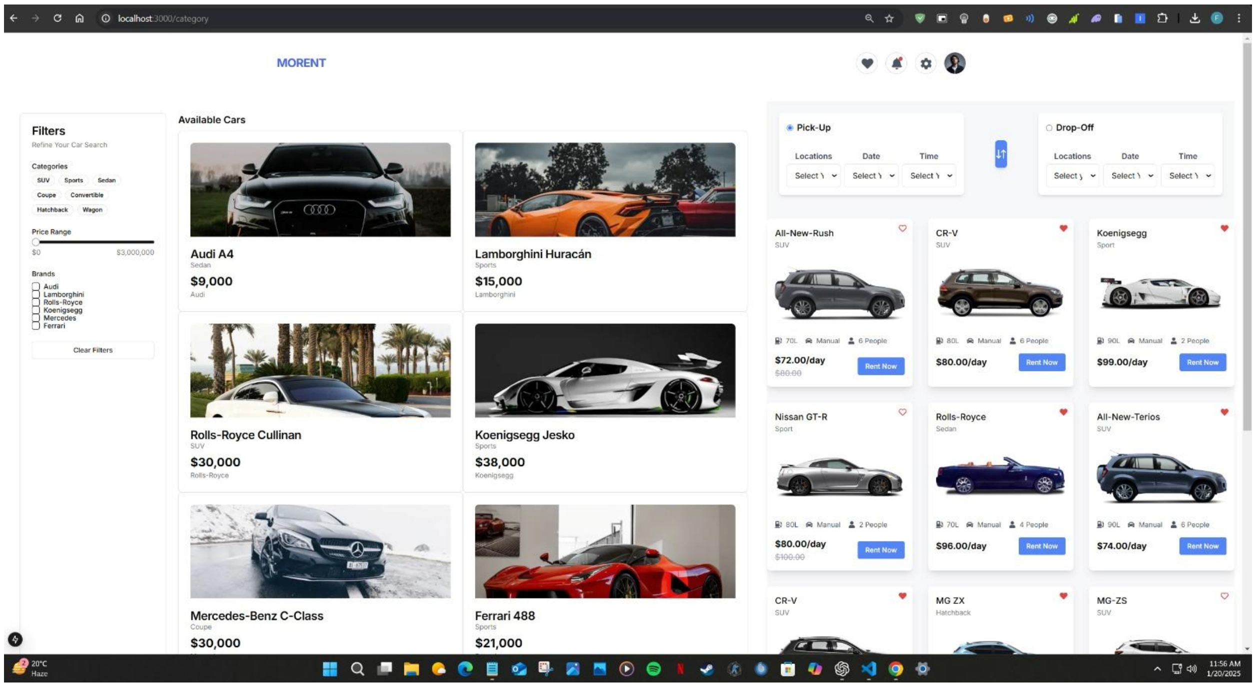
```tsx
"use client"

import { useState, useEffect } from "react"
import Image from "next/image"
import { Slider } from "@/components/ui/slider"
import { Checkbox } from "@/components/ui/checkbox"
import { Button } from "@/components/ui/button"
import { Card, CardContent, CardDescription, CardFooter, CardHeader, CardTitle } from "@/components/ui/card"
import { Badge } from "@/components/ui/badge"
import { Skeleton } from "@/components/ui/skeleton"
import { mockItems } from "@/data/mockItems"

const categories = ["SUV", "Sports", "Sedan", "Coupe", "Convertible", "Hatchback", "Wagon"]

const brands = ["Audi", "Lamborghini", "Rolls-Royce", "Koenigsegg", "Mercedes", "Ferrari"]

Codeium: Refactor | Explain | Generate JSDoc | ×
export default function CategoryFilters() {
  const [selectedCategories, setSelectedCategories] = useState<string[]>([])
  const [items, setItems] = useState<typeof mockItems>([])
  const [filteredItems, setFilteredItems] = useState<typeof mockItems>([])
  const [priceRange, setPriceRange] = useState([0, 3000000])
  const [selectedBrands, setSelectedBrands] = useState<string[]>([])
  const [loading, setLoading] = useState(true)

  useEffect(() => {
    Codeium: Refactor | Explain | Generate JSDoc | ×
    const fetchData = async () => {
      // Simulate API call
      await new Promise((resolve) => setTimeout(resolve, 1000))
      setItems(mockItems)
      setFilteredItems(mockItems)
      setLoading(false)
    }
    fetchData()
  }, [])

  Codeium: Refactor | Explain | Generate JSDoc | ×
  const toggleCategory = (category: string) => {
    setSelectedCategories((prev) =>
      prev.includes(category) ? prev.filter((c) => c !== category) : [...prev, category],
    )
  }

  Codeium: Refactor | Explain | Generate JSDoc | ×
  const handlePriceRangeChange = (value: number[]) => {
    setPriceRange(value)
  }

```

Key Features

- **Dynamic Querying:** GROQ queries fetch filtered data based on the selected category.
- **Interactive UI:** Clicking on a category updates the listing page without a full page reload.

Conclusion

These features collectively enhance the functionality and usability of the car rental e-commerce website. By implementing efficient filtering, pagination, dynamic routing, and detailed product pages, the platform delivers an **engaging** and **user-friendly experience** for potential customers.


localhost:3000/category
MORENT
Filters
Refine Your Car Search
Categories
SUV
Sports
Sedan
Coupe
Convertible
Hatchback
Wagon
Price Range
$0
$3,000,000
Brands
Audi
Lamborghini
Rolls-Royce
Koenigsegg
Mercedes
Ferrari
Clear Filters
Available Cars
Audi A4
Sedan
$9,000
Audi
Lamborghini Huracán
Sports
$15,000
Lamborghini
Rolls-Royce Cullinan
SUV
$30,000
Rolls-Royce
Koenigsegg Jesko
Sports
$38,000
Koenigsegg
Mercedes-Benz C-Class
Coupe
$30,000
Ferrari 488
Sports
$21,000
Pick-Up
Locations
Date
Time
Select
Drop-Off
All-New-Rush
SUV
70L Manual 6 People
$72.00/day
$80.00
Rent Now
CR-V
SUV
80L Manual 6 People
$80.00/day
Koenigsegg
Sport
90L Manual 2 People
$99.00/day
Nissan GT-R
Sport
80L Manual 2 People
$80.00/day
$100.00
Rolls-Royce
Sedan
70L Manual 4 People
$96.00/day
All-New-Terios
SUV
90L Manual 6 People
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