

Technical Report: Rental E-Commerce Website

Steps and Challenges

This document summarizes the steps taken to build the rental e-commerce website and challenges faced during development.

Steps Taken

- Setup: Initialized Next.js and start integrating sanity cms as backend for backend.
- Backend: Developed APIs for car booking, and payments.
- Integration: Connected frontend with backend APIs and enabled dynamic routing

Challenges and Solutions

- . Fetching Data:
 - Problem: Inconsistent API responses.
 - Solution: Standardized API response handling and managed state using React hooks.

Best Practices


- Code quality with reviews and refactoring.
- Version control with Git.
- control on and grip on apis .

Conclusion


This project showcased practices for tackling challenges and delivering a scalable rental e-commerce platform






The product listing page with dynamic data

Popular Car [View All](#)


Nissan Altima 

Hybrid









 Gas Sta  50L  Car Icor  Manual  Sea Car 5 seats

\$90.00/day [Rent Now](#)


Audi A6 

Hybrid









 Gas Sta  50L  Car Icor  Manual  Sea Car 5 seats

\$120.00/day [Rent Now](#)


Rolls-Royce 

Sedan









 Gas Sta  70L  Car Icor  Manual  Sea Car 4 People

\$96.00/day [Rent Now](#)

All New Terlos 


SUV





 Gas Sta  90L  Car Icor  Manual  Sea Car 6 People


\$74.00/day [Rent Now](#)

Recommendation Car

Rolls-Royce 

Mercedes-Benz C-Class 

CR-V 

Nissan GT-R 

Individual product detail pages with accurate routing and data rendering.



Audi A6



Hybrid



Fuel
Cap:

50L

Fuel Capacity



Tran

Manual

Transmission



Seat
Cap:

5 seats

Seating Capacity

Brand: AUDI AG

Tags: Recommend

\$120.00 / day

~~\$149.99~~

Rent Now

Working category filters

Fuel Capacity

- ☐ 50L
- ☐ 70L
- ☐ 90L

Price Range

Min Max

-

Selected price range: 0 - 100

Rolls-Royce ❤️

SUV



 70L  Manual  6 People

\$72.00/day

[Rent Now](#)

Mercedes-Benz C-Class ❤️

Gasoline



 65L  Manual  5 seats

\$140.00/day

[Rent Now](#)

CR-V ❤️

SUV



 80L  Manual  6 People




\$80.00/day

[Rent Now](#)

Nissan GT-R ❤️

Sport



 80L  Manual  2 People

\$80.00/day

[Rent Now](#)

Ford Mustang ❤️

Gasoline

Nissan GT-R ❤️

Sport

BMW X5 ❤️

Diesel

Koenigsegg ❤️

Sport

search bar

MORENT



Rolls-Royce

Sedan



Fuel 70L
Cap:



Tran Manual



Seat 4 People
Cap:

\$96.00/day

Rent Now

The Best Place
for Car Rental

Ease of doing a car rental
reliably. Of course at a low

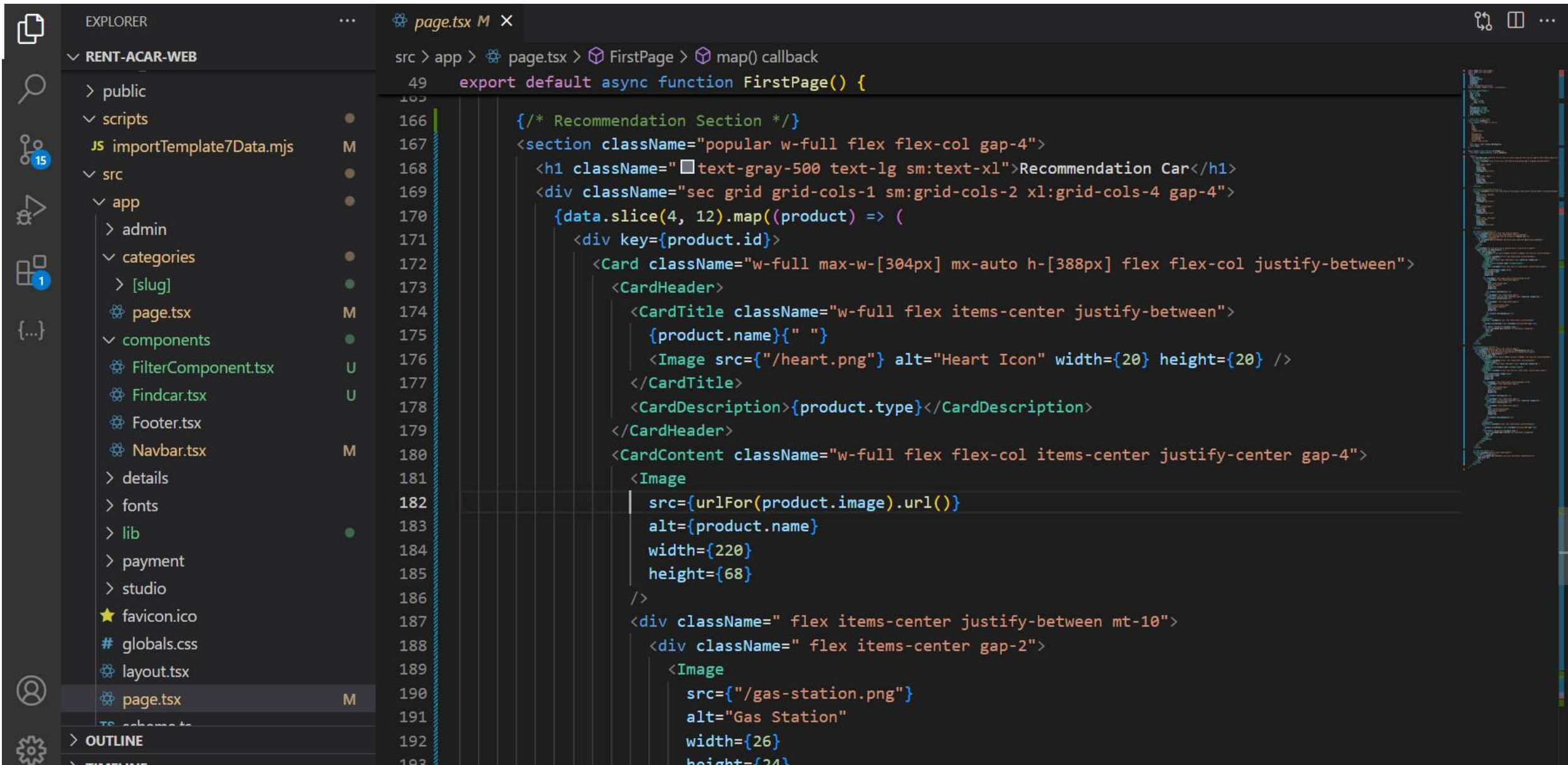
Rental Car

Way to rent a
a low price

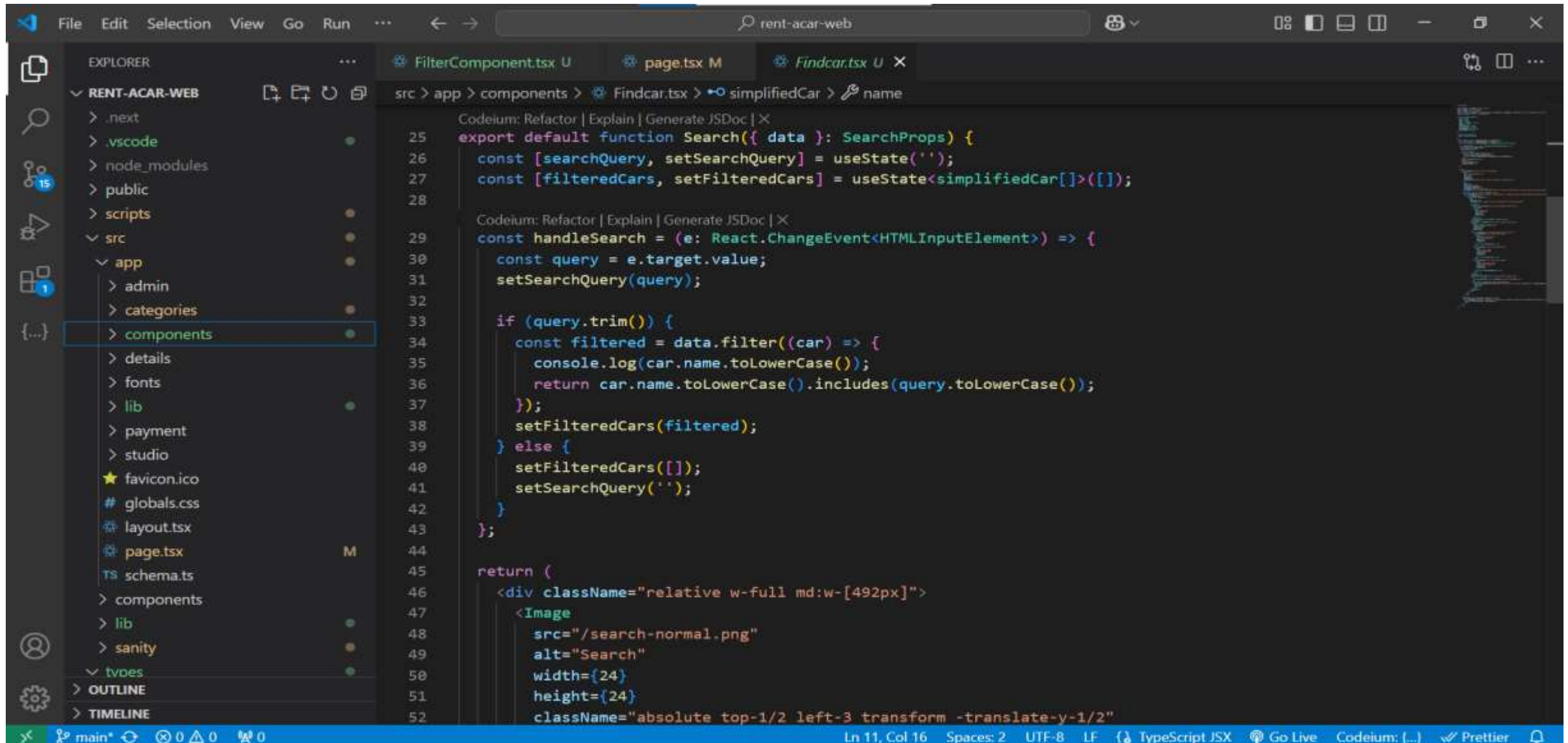
cheap car rental services
and comfortable facilities.



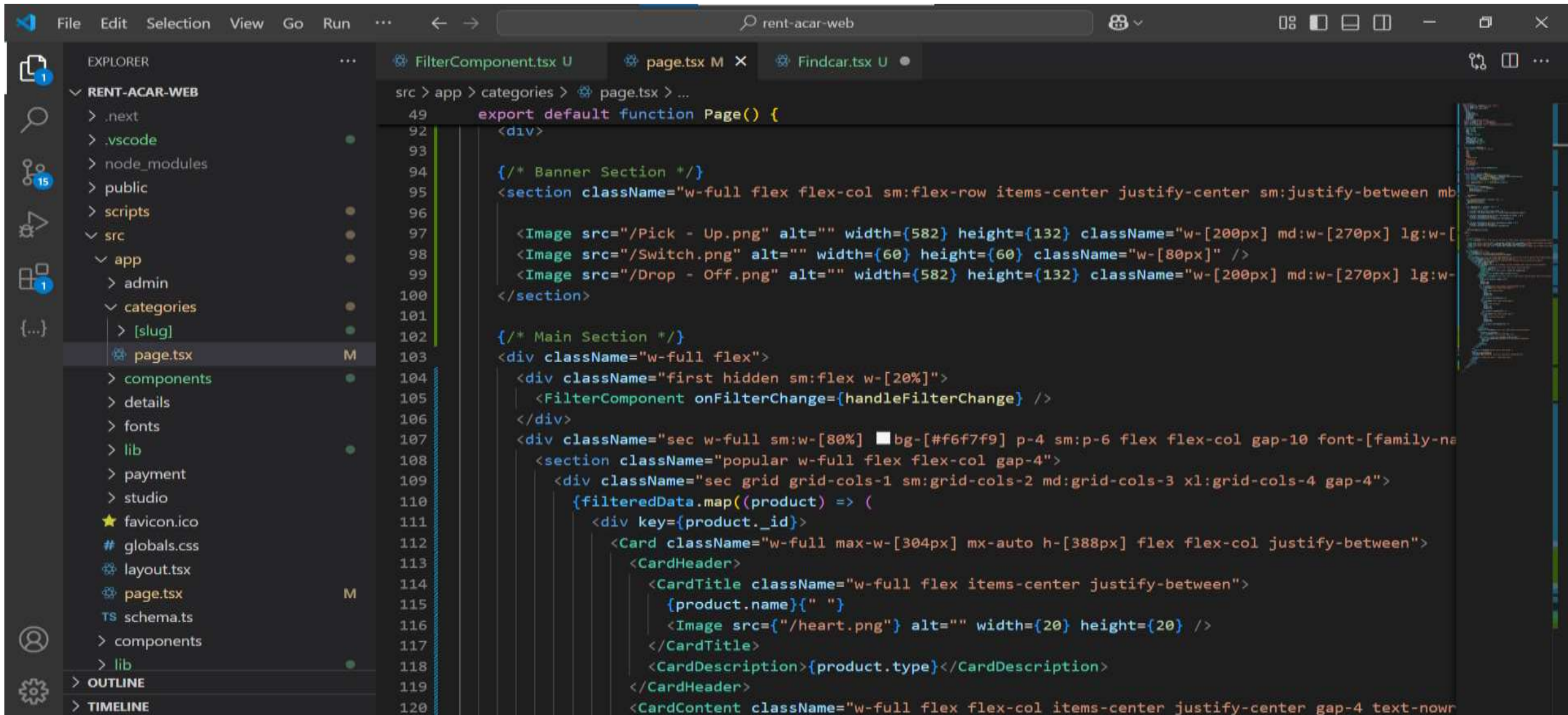
Code of snippet ProductCard



code snippet of search

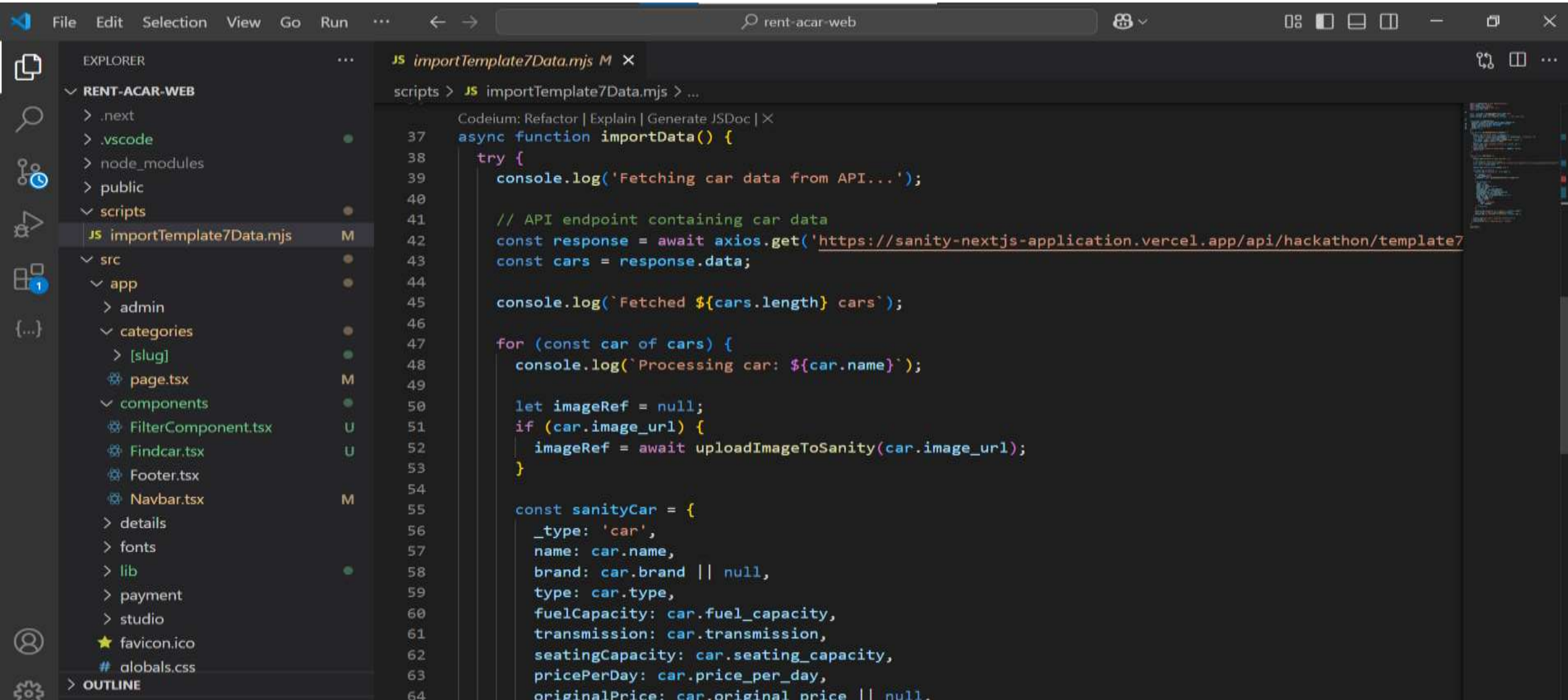


Code snippet of category



```
src > app > categories > page.tsx > ...
49  export default function Page() {
92    <div>
93
94      {/* Banner Section */}
95      <section className="w-full flex flex-col sm:flex-row items-center justify-center sm:justify-between mb-10">
96
97        <Image src="/Pick - Up.png" alt="" width={582} height={132} className="w-[200px] md:w-[270px] lg:w-[340px]" />
98        <Image src="/Switch.png" alt="" width={60} height={60} className="w-[80px]" />
99        <Image src="/Drop - Off.png" alt="" width={582} height={132} className="w-[200px] md:w-[270px] lg:w-[340px]" />
100    </section>
101
102    {/* Main Section */}
103    <div className="w-full flex">
104      <div className="first hidden sm:flex w-[20%]">
105        <FilterComponent onFilterChange={handleFilterChange} />
106      </div>
107      <div className="sec w-full sm:w-[80%] bg-[#f6f7f9] p-4 sm:p-6 flex flex-col gap-10 font-[family-name]">
108        <section className="popular w-full flex flex-col gap-4">
109          <div className="sec grid grid-cols-1 sm:grid-cols-2 md:grid-cols-3 xl:grid-cols-4 gap-4">
110            {filteredData.map((product) => (
111              <div key={product._id}>
112                <Card className="w-full max-w-[304px] mx-auto h-[388px] flex flex-col justify-between">
113                  <CardHeader>
114                    <CardTitle className="w-full flex items-center justify-between">
115                      {product.name}{" "}
116                      <Image src={"/heart.png"} alt="" width={20} height={20} />
117                    </CardTitle>
118                    <CardDescription>{product.type}</CardDescription>
119                  </CardHeader>
120                  <CardContent className="w-full flex flex-col items-center justify-center gap-4 text-nowrap">
```


Script logic for API integration and dynamic routing



The screenshot displays the Visual Studio Code editor interface. The Explorer sidebar on the left shows the project structure for 'RENT-ACAR-WEB'. The main editor area shows the file 'importTemplate7Data.mjs' with the following code:

```
37 async function importData() {
38   try {
39     console.log('Fetching car data from API...');
40
41     // API endpoint containing car data
42     const response = await axios.get('https://sanity-nextjs-application.vercel.app/api/hackathon/template7');
43     const cars = response.data;
44
45     console.log(`Fetched ${cars.length} cars`);
46
47     for (const car of cars) {
48       console.log(`Processing car: ${car.name}`);
49
50       let imageRef = null;
51       if (car.image_url) {
52         imageRef = await uploadImageToSanity(car.image_url);
53       }
54
55       const sanityCar = {
56         _type: 'car',
57         name: car.name,
58         brand: car.brand || null,
59         type: car.type,
60         fuelCapacity: car.fuel_capacity,
61         transmission: car.transmission,
62         seatingCapacity: car.seating_capacity,
63         pricePerDay: car.price_per_day,
64         originalPrice: car.original_price || null,
```