Booking.com

TBU front-end technical test

You have been tasked with using the Rentalcars.com search endpoint to retrieve and display car hire locations based on user input.

Technical guidance

We use **React** for the front-end of our applications at Booking.com TBU, so ideally this test would be completed with this framework.

However this is not a deal breaker for us so if you wish, you can complete this with any other framework that you're more comfortable with, or with vanilla JavaScript.

Use any **build tooling** and/or **boilerplates** that you'd normally use if you wish to scaffold the project, but if using externally written tooling be prepared to write about or talk to us about **your technical decisions**. If you're an expert in build tooling, feel free to roll your own and show us what you can do.

When styling your application, feel free to use the technology and techniques that you'd normally use, and describe to us your methodology around **CSS architecture and development**.

We need to be able to fully **run your application and its tests locally**, and potentially be able to **statically host it**, so bear this in mind when completing the technical test.

Write us some **instructions** on how to build and serve it. If you want to host it yourself please provide us with a live link along with the code repository.

We'll be looking out for, amongst other things:

- ❏ Overall code quality and readability
- ❏ Modern technical best practices
- ❏ Project structure and separation of concerns
- ❏ Use of tooling if appropriate
- ❏ Visual accuracy and styling approach

In addition, for a senior level application, we'd be expecting:

- ❏ Testing approach
- ❏ Accessibility considerations
- ❏ Performance considerations

Booking.com

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Acceptance criteria

Part 1: Markup, styling, and accessibility

Given I am a visitor to your application
Then I should see a search form with a text input labelled *"Pick-up Location"*
And the styling is as per the Rental Cars live site.

Given I am a visitor to your application
When I use the search box with a screen reader
Then the correct label is read out for the *"Pick-up Location"* input

Consider mobile-first styling and web accessibility when completing this part of the technical test.

Part 2: Fetching and displaying search results

Given I am using the search form,
When I enter a single alphanumeric character into the *"Pick-up Location"* input,
Then the placeholder text disappears,
And no search results are displayed.

Given I am using the search form,
When I enter 2 or more alphanumeric characters into the *"Pick-up Location"* input,
Then I see a list of search results,
And the styling is as per the Rental Cars live site.

Given I have entered a matched search term into the *"Pick-up Location"* input,
When I see a list of search results,
Then the maximum number of search results displayed is 6.

Given I am a visitor using the search form,
When I enter a search term in the *"Pick-up Location"* input that is not recognised e.g. *"asdf1234",*
Then I should see the message *"No results found".*

Given the search results list is displayed,
When I truncate the search term leaving only 1 character,
Then the search results list is no longer displayed.

Consider client-side performance when completing this part of the technical test.

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Endpoint

Use our search endpoint:

`https://www.rentalcars.com/FTSAutocomplete.do?solrIndex=fts_en&solrRows={**number_of_results_required**}&solrTerm={**search_term**}`

Where **{number_of_results_required}** is an integer and **{search_term}** is a string.

The endpoint will return a JSON object which you can use to display search results.

Example JSON response:

```
{
	results: {
		docs: [
			{
				country: "United Kingdom",
				lng: -2.27472,
				city: "Manchester",
				searchType: "L",
				alternative: [
					"GB,UK,England,Manchester Airport"
				],
				index: 1,
				bookingId: "airport-38566",
				placeType: "A",
				placeKey: "1472187",
				iata: "MAN",
				countryIso: "gb",
				locationId: "38566",
				name: "Manchester Airport",
				ufi: 900038550,
				isPopular: true,
				region: "Greater Manchester",
				lang: "en",
				lat: 53.3536,
			}
		]
	}
}
```

Infer the format and manipulate the data to display results as per the existing Rental Cars live site.