

Travel Companion

"Travel Companion" is a web application designed to help travelers in planning their trips. The application integrates data from several APIs to provide users with information about the weather, tourist attractions, local events, restaurant recommendations in the chosen city or region.

Project Description:

Objective: Development of an interactive website with integration of geographical and weather and Wikipedia APIs.

Features:

- Geo API for visualizing an interactive map.
- Interface design using Bootstrap, including an attractive map background.
- Integration of Wikipedia section for information on hotels and restaurants.
- Weather API for displaying current weather conditions

Development Motivation:

Need: Creating a convenient and informative resource for travelers.

Goal: Providing comprehensive information on weather, location, and local attractions.

Inspiration: Combining technology and convenience to enhance the travel experience.

User Story:

Problem: The need for a single resource for planning travels with weather and local attractions in mind.

Solution: Our site offers detailed information about weather and interesting places, simplifying trip planning.

User Experience: Users can easily access all the necessary information on one website, making travel planning more enjoyable and time-efficient.

We used in our project:

- HTML/CSS: Structure and styling of the interface.
- Bootstrap 5.3.0-alpha3: Framework for responsive and mobile-first design.
- Leaflet 1.9.4: Library for map functionality.
- JavaScript: Dynamic user interaction and asynchronous API requests.
- Day.js: Utility for date and time manipulation.
- jQuery 3.2.1: Library to simplify DOM manipulation, events, and AJAX.
- Geoapify API: For autocomplete and geocoding of addresses.
- API Weather by API Ninjas: To retrieve weather information.
- Wikipedia API: To extract information and images about cities.

How we divided the work:

We split the tasks into two groups Junu and Aftab and Olga and Oleksii.

Junu & Aftab's Contributions:

- Weather API:
 - Junu: Designed the sidebar for weather display on the website.
 - Aftab: Managed the Readme documentation for Weather API integration.

Olga & Oleksii's Roles:

- Geo API & Interactive Map:
 - Olga: Developed the overall interface using Bootstrap. Incorporated an appealing map background for enhanced user experience.
 - Oleksii: Solely responsible for the Wikipedia section. Efficiently integrated data fetching for hotels and restaurants.

Technology Stack Overview and Evaluation (a)

Geoapify Geocoding API:

- Capabilities: Converts addresses into geographic coordinates and vice versa. Supports address autocomplete.
- Our Opinion: Quite accurate and user-friendly. The autocomplete feature significantly enhances the user experience.
- Problems and Solutions: Inaccurate address inputs can lead to confusing results. Solution – use autocomplete to refine queries.

OpenStreetMap & Leaflet.js:

- Capabilities: OpenStreetMap provides free map data. Leaflet.js is a library for displaying this data.
- Our Opinion: A great free solution for map integration. Leaflet.js is easily integrated and customizable.
- Problems and Solutions: Sometimes map data may not be completely up-to-date. It's important to regularly update data sources.

Technology Stack Overview and Evaluation (b)

Wikipedia API:

- Capabilities: Allows extracting information and images from Wikipedia.
- Our Opinion: An excellent resource for obtaining educational content. CORS issues can be solved using a proxy.
- Problems and Solutions: The necessity of using a proxy server to circumvent CORS. Solution – use a CORS proxy.

Technology Stack Overview and Evaluation (c)

API Ninjas Weather API:

- Capabilities: Provides weather data worldwide.
- Our Opinion: Fairly accurate and timely data. Convenient for integration in projects requiring weather information.
- Problems and Solutions: Limitations on the number of free requests.
Solution – optimize the number of requests or consider paid plans for commercial projects.

Travel Companion

designed to help travelers in planning their trips and provide users with information about the weather, tourist attractions and recommendations in the chosen city.



Search for a City:

☐ Hotels ☐ Restaurants

Search

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designed to help travelers in planning their trips and provide users with information about the weather, tourist attractions and recommendations in the chosen city.

Search for a City:

London, ENG, United Kingdom

☒ Hotels ☐ Restaurants

Search

Information about the place from Wikipedia

The Trafalgar St. James London, Curio Collection by Hilton

The Trafalgar St. James London, Curio Collection by Hilton, 2 Spring Gardens, London, SW1A 2TS, United Kingdom

The Trafalgar St. James

The Trafalgar St. James, 2 Spring Gardens, London, SW1A 2TS, United Kingdom

Show on Map

Hotel The Grand at Trafalgar Square

Hotel The Grand at Trafalgar Square, Northumberland Avenue, London, WC2N 5BW, United Kingdom

Club Quarters Hotel

Club Quarters Hotel, 8 Northumberland Avenue, London, WC2N 5BY, United Kingdom

Show on Map

By entering the city name in the search field, users can see the details about the city sourced from Wikipedia, real-time weather updates - temperature, humidity and wind, and a list of hotels and restaurants. Search field has an autocomplete feature, suggesting the list of the cities from 3 first letters.

London,
ENG, United
Kingdom

Temperature

6°C

Temperature: 6

Minimum: 3

Maximum: 8

Humidity Info

70°C

Cloud PCT is 4

Feels like 3

Humidity is 70

Wind Info

3.6°C

Wind speed is 3.6

Wind degree is 240

Sunrise time is

6:57:35 PM

Olga Junu.

Club Quarters Hotel

Club Quarters Hotel, 8 Northumberland Avenue, London, WC2N 5BY, United Kingdom

Show on Map

Citadines

Citadines, 18-21 Northumberland Avenue, London, WC2N 5EA, United Kingdom

Show on Map

Corinthia Residences

Corinthia Residences, 10 Whitehall Place, London, SW1A 2BD, United Kingdom

Show on Map

Corinthia Hotel

Corinthia Hotel, 10 Whitehall Place, London, SW1A 2BD, United Kingdom

Show on Map

The Clermont

Users can explore the location of a place by clicking on interactive cards, which are corresponding with the pins on the dynamic map, We were trying to provide a visually intuitive way to navigate and discover destinations.

Royal Trafalgar

Royal Trafalgar Hotel, London, United Kingdom

Show on Map

Club Quarters Hotel

Club Quarters Hotel, 8 Northumberland Avenue, London, WC2N 5BY, United Kingdom

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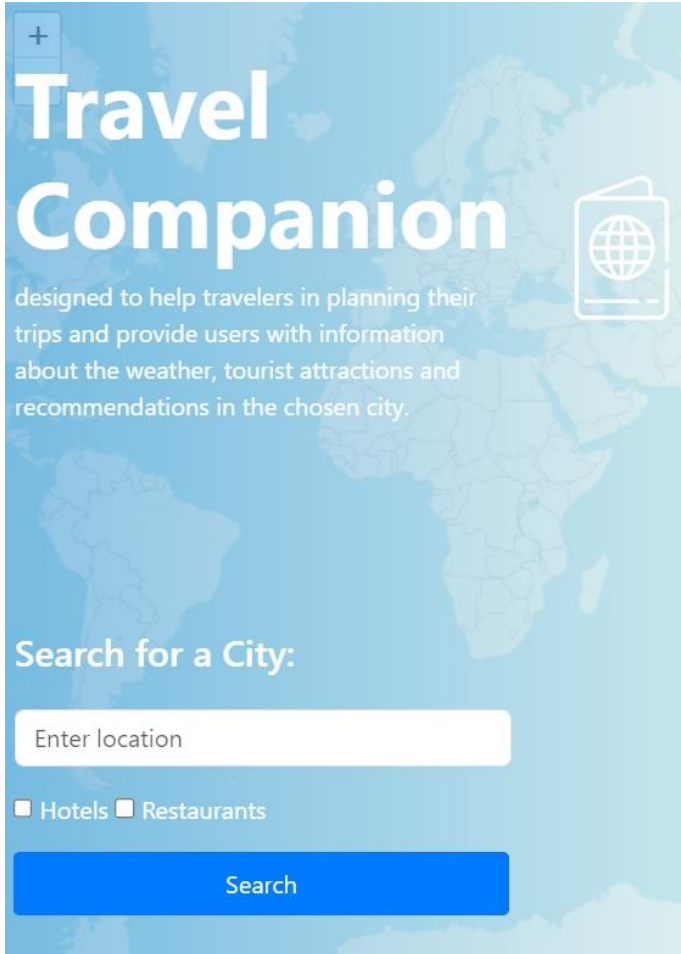
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Adaptive design for mobile devices.

Travel Companion has an adaptive design for optimal functionality on mobile devices. This ensures a seamless and user-friendly experience, allowing visitors to effortlessly access and navigate through the content, regardless of the device they are using. Whether on a desktop, or smartphone, the adaptive design guarantees a consistently compelling and visually appealing presentation.

Links

Enhancing User Experience

- **Personalization Features:** Implement user profiles to tailor content and suggestions.
- **Mobile Optimization:** Ensure full functionality and responsiveness on mobile devices.

Expanding Content and Services

- **Local Events Integration:** Add real-time local event data for more dynamic travel planning.
- **Multi-language Support:** Introduce additional languages to cater to a global audience.

Technical Improvements

- **API Efficiency:** Optimize API calls to improve speed and reduce costs.
- **Data Accuracy:** Continuously update and verify data sources for reliability.

Links

app: <https://oleksiieng.github.io/travel-companion-project>

repository: <https://github.com/Oleksiieng/travel-companion-project>

Thank you for your time 😊