

Sem 2 2023/2024

## **SECV2223 Web Programming**

Section 06

# **Report: Comparative Evaluation Websites**



# Group 7 < StreetWeb>

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#### **Introduction**

This report is designed to assess the efficiency of the web on a host of travel sites using Google Lighthouse which is a web performance evaluation tool. Among my choice of travel websites are some of the most sought after destinations and the most popularly visited resources in the travel sector. Analysis Involves Different Performance Indicators, such as perfomance, accessibility, etc. As per the findings the strengths and weaknesses of these websites will be identified and there shall be some recommendations which will be helpful to improve the user experience and also to strengthen the sites' performance.

#### Website selected for evaluation

# 1. Booking.com B.



One of the biggest online travel companies is Booking.com. It is a subsidiary of Booking Holdings with its headquarters located in Amsterdam. Within the travel agency category, the company's mobile app had the highest download volume in 2022. By December 31, 2022, Booking.com will have booked accommodations for about 2.7 million properties, including 2.3 million homes and apartments in more than 220 countries and 40 languages, as well as 400,000 hotels, motels, and resorts. In addition, it offers tours and activities in over 1,200 cities, as well as flights in 54 markets.

## 2. Expedia



The Seattle-based Expedia Group owns Expedia Inc., an online travel agency. Reservations for hotels, cars, cruise ships, and vacation packages can be made via the website and mobile app. Microsoft launched Expedia.com on October 22, 1996.

### 3. Airbnb



AIR-BEE-en-BEE, Airbnb, Inc. is an American company that runs an online marketplace for experiences and short- and long-term homestays. In its capacity as a broker, the business takes a commission from each reservation. In 2008, Joe Gebbia, Nathan Blecharczyk, and Brian Chesky founded the company. AirBedandBreakfast.com was the original name of Airbnb, which has been shortened. The most well-known company for renting out short-term homes is Airbnb.

#### 4. Tripadvisor



The American business Tripadvisor, Inc. runs user-generated content mobile apps, comparison shopping websites, and online travel agencies. Its namesake website, Tripadvisor.com, has over 1 billion reviews and opinions on about 8 million establishments and is available in 20 languages and 40 countries. Needham, Massachusetts serves as the company's headquarters. Expedia Group, Booking Holdings, and their

subsidiaries provided Tripadvisor with 25% of its revenue in 2023, mostly in the form of pay-per-click advertising.

#### 5. Kayak



agoda

Kayak, also spelt KAYAK, is a metasearch engine for booking travel-related services such as hotels, rental cars, airline tickets, and trip packages. Holdings is the owner and operator of it. Currently, Kayak's mobile apps and website are accessible in about 30 countries and 20 languages.

#### 6. Agoda

Agoda.com is an online travel company based in Singapore that primarily serves customers in the Asia-Pacific area. It also has operations in Bangkok, Thailand. Reservations for hotels, flights, ground transportation, and activities can be made easier with Agoda. It belongs to Booking Holdings as a subsidiary.

#### **Strength / Weakness**

Booking.com prioritizes website accessibility for users with disabilities, enhancing inclusivity and popularity. Its strong presence on search engines like Google drives traffic to the site. However, the platform faces performance challenges such as slow loading times and inefficient resource usage. Adhering to best practices could enhance user experience and security, ensuring sustained success.

Expedia.com focuses on accessibility and SEO, ensuring a wide audience and high online visibility. Its commitment to inclusivity and strong SEO efforts attract organic traffic. However, the platform encounters performance challenges like slow loading times and resource wastage. Adhering to best practices could improve user experience further, ensuring a seamless experience.

Airbnb.com excels in SEO and accessibility, enhancing its online presence and usability. Its dedication to inclusivity ensures easy navigation for users with disabilities. Despite these strengths, the platform faces performance challenges such as slow loading times and resource wastage. Addressing these issues and adhering to best practices could improve functionality and user experience.

TripAdvisor is renowned for its user-generated content, offering comprehensive reviews and recommendations for travelers. However, maintaining review quality and reliance on third-party booking sites pose challenges. Nonetheless, TripAdvisor remains a valuable resource for trip planning.

Kayak offers comprehensive travel information and real-time price comparison features, enabling users to find the best deals. Despite its convenience, reliance on third-party booking sites may lead to discrepancies. Nonetheless, Kayak remains a valuable resource for travelers.

Agoda specializes in accommodation booking with an extensive inventory and user-friendly interface. Despite its strengths, challenges related to customer service and transparency may arise. Nonetheless, Agoda remains a popular choice for travelers seeking a wide selection of accommodations.

#### **Comparative Analysis**

Website	Performance	Accessibility	Best Practices	SEO	PWA
Booking.com	28	95	52	100	-
Expedia	32	96	74	92	<b>V</b>
Airbnb	36	96	78	99	<b>V</b>
Tripadvisor	50	88	78	98	-
Kayak	29	81	78	99	<b>V</b>
Agoda	37	83	74	100	<b>V</b>

A sizable gap exists between the performance scores of the chosen travel websites, illustrating the differing levels of website optimization and responsiveness. Tripadvisor performs best, scores 50 points, while Booking.com and Kayak occupy the back of the group with the lowest performance scores of 28 and 29 points respectively.

The accessibility part shows that Airbnb and Expedia have strong commitment to inclusivity and they got the highest score of 96. Hence, it implies a user-friendly environment for all the users; therefore, its sites are accessible and navigable by the people with disabilities. On the other hand, Kayak comes second with 81 points.

In regards to the best practices in web development, Airbnb takes the lead with 78 points, followed by Tripadvisor and Kayak both having 74 points. Booking.com has the most to gain with the lowest score of 52 and thus improvement is needed in getting in line with industry standards.

The search engine optimization tactics of Agoda are well detailed with a perfect score of 100 that reflect how well Agoda has optimized content for better search engine visibility. Both, Booking.com and Airbnb excel in this field with ratings at 100 and 99 respectively.

Moreover, every selected travel site has a Progressive Web App (PWA) to ensure fantastic user experience on all possible devices. One of the major proofs that the industry takes into account the importance of mobile optimization and user engagement in the current digital era is the large scale implementation of PWAs.

#### Recommendations

To make Booking.com's website better, is to prevent user frustration, concentrate on increasing speed and utilizing less resources. In order to enhance user experience and maintain website security, adhere to the guidelines for improving websites. Verify that using the website is simple for everyone, including those with problems. And last, to bring more visitors to the website, continue to develop strategies for increasing the site's visibility on search engines like Google. These modifications are expected to enhance Booking.com's ease of use and popularity.

To make Expedia.com better, focus on making the page load more quickly and avoid wasting resources, which might upset consumers. Follow the guidelines for improving websites in order to enhance user experience. Make

sure that everyone, including those with problems, can easily navigate the website. To increase visitors, try increasing your presence on search engines like Google. With these modifications, Expedia.com will become more popular and user-friendly.

To make Airbnb.com better, focus speed and participation as two important aspects. Reduce page loading time and resource waste to avoid upsetting users by optimizing the website. Make sure that everyone, including those with problems, can easily navigate the website. Airbnb.com can make visitors' experiences better and draw in more customers by doing this.

To enhance TripAdvisor, focus on enhancing the moderation and verification procedures to improve the standard and accuracy of user-generated material. Offer direct booking choices to improve the booking process instead of depending only on third-party websites. Furthermore, give innovation top priority to maintain an advantage in the competitive marketplace and respond more effectively to user preferences. By adopting these actions, TripAdvisor may enhance user credibility, trust, and overall experience while maintaining its standing as a trustworthy source for travel planning.

To improve Kayaks, is to provide direct booking alternatives or form partnerships with trustworthy vendors to further streamline the booking process and reduce inconsistencies. Maintain the platform's user-friendly design by constantly innovating it and adding new features that bring value, such improved search filters or tailored suggestions. By resolving these issues, Kayak can draw in more customers and raise user satisfaction levels by further establishing itself as a practical and trustworthy travel metasearch engine.

To improve Agoda, put improving customer service and openness first by setting up improved lines of contact with hotels and quickly addressing any booking inconsistencies. Maintain a consistent update schedule for the website and mobile app to keep them intuitive and user-friendly, with improved search and sorting features. Furthermore, emphasize the Agoda Rewards program more strongly to encourage recurring reservations and boost client loyalty.

#### Conclusion

In conclusion, this evaluation has provided valuable insights into the web performance of the selected travel websites. Each platform demonstrated both strengths and weaknesses in various aspects of web performance, including speed, accessibility, and best practices.

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