Project and Professionalism

(6CS007)

Literature Review

Hotel Recommendation System

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Introduction

Hotel recommendation system is an online booking platform for hotel operators where they can provide their online booking services, and users of the platform can use them to make reservation and find the ideal hotel at the best price. When a user makes a reservation through our website, the user promises in the direct contact unless otherwise specified, the relationship with the hotel operator. Users communicate directly with relevant personnel. The provider also sends a confirmation email through our website. The system selects the ideal hotel with the highest evaluation based on factors such as cost, room, and availability also other contexts that allow users to compare transactions provided by hoteliers. Website also provide a personalized search experience. In addition, the system includes independent sources of information about different hotels, to provide users with more choices and reduce time to use rich information from hotels and suppliers for consumption.

A good hotel reservation system needs a user-friendly interface to help users. The convenient front desk view of the calendar will be seen in interface which will help user to make the booking process easier. Also, website redirect visitors to an online microsite or portal where they can complete a reservation. The booking engine provides user with all the information they may need-including prices, packages, room types, additional services, included content, and other detailed information without them having to scroll through the website.

Background

According to Condor Ferry (Hotel Booking Web Application) There are about 700,000 hotels around the world. These hotels contribute more than $3.41 trillion to the world economy. It also states the desire to travel is increasing among the peoples all around the world. Increasing experience and digital influence are driving travel growth industry. (Ferries, 2021) According to an increasing number of hotel owners and travelers, such a platform was introduced. Hotel owners can review their hotels, and travelers can view the hotel of interest. Therefore, this system carries a great potential from very long period.

In 1994 Hyatt Hotels and Promus Hotel Corporation launch website on the internet and within the same year Travelweb.com marks the debut of the first online hotel catalog. After a year, in 1995 Choice Hotels International and Promus offers real-time access to central reservation to guest. Meanwhile, Choice and Holiday Inn are first to introduce online booking capability. In 2009, after making progress in online booking system Intelity launches first mobile app for guest service and operational enhancements. (Anon., 2016)

In past time, hotels didn't always book electronically. For hotels, electronic delivery was introduced when Centralized Booking or Computer Booking Systems (CRS) were launched in the 1950s, with centralized booking, inventory management, storage and acquisition of customer information, and all transactions. Ultimately, the hotel booking system was used by travel agencies and further on a global platform for booking and selling tickets for multiple platforms, including airline tickets, hotel rooms, and car rentals. In addition, known as the Global Distribution System, it automated the marketing, sales, and distribution needs of the global travel industry in the 1960s. During this time, GDS was the only distribution channel. (Singh, n.d.)

In the late 1960s, hotels began to understand the scope and opportunities offered by electronic distribution, and eventually began developing their own system, known as the Property Management System (PMS). These systems were mainly adopted from airline frameworks and city codes. The PMS system has automated functions such as guest booking and check-in, booking, vendors, materials, and quantity management. Since GDS was still the only distribution channel, there were many problems faced by the hotel. Each hotel needed a GDS distribution system to do things their way, creating a major contradiction. By this time, hoteliers had good connections in different markets around the world and were well-positioned to take advantage of the decade of dot-com companies. The hotel brand.com site was launched, and the travel web was born. Hotel owners have established GDS by making website information more accessible to consumers, connecting directly to PMS from the website, and improving IT operations and system design. (Singh, n.d.)

Figure 1: Evolvement of Hotel Management System (**Anon., 2016**)

An ordinary recommender is based on clients' evaluations about the hotel review or highlights, but talking about this generation recommendation system utilizes surveys, mathematical position votes, and video perspectives to take genuine aftereffects of clients' multitype criticism. The score gives a literary side of client's perspectives about a specific hotel. To deal with the variety of heterogeneous information as the early approached recommendation system utilizes numeric information just as literary information which is a major information arrangement including Hadoop that utilizes in today's recommendation system as it productively handles variety of heterogenous information in a superior manner. As per today's recommendation system, it has categorized the visitor type (solo, family, business, companions, and couple) as the principal part of their exploration. They studied about various rating boundaries in addition to apply highlight to put together wistful examination with respect to client's information. For instance, their major part excursion guide permits travelers to rate lodgings on a few choices, for example, like area, room, neatness, administration, and staff. (Bushra Ramzan, 2019)

Approaches for the Hotel Recommendation System

Talking about 1980's, when the visitor information, recording names, locations and contact subtleties were followed which led towards CRM frameworks, client commitment, offers, and advertisement. The fact with hotels following travelers' information is yet an issue from early 40 years ago to till no.

In 1990's when followed carrier dynamic estimating were began the rates began to advance. After this, Hoteliers began to understand about the recommendation system then they suddenly started offering different costs and conveniences for the bundles of visitor.

The Web-based Travel Planner space advanced from 1990-2005. Hyatt Inns and Promus Inn Company were the very first to introduce lodging network sites in 1994. Till now, hotels are the prior and are in highlights for the movement inventories or handouts also it is difficult to accept that this is 26 years prior that the early approaches were introduced for the hotels. The principal organization to introduce this recommendation system through internet was Travel web but 26 years on and the recommendation is not as the prior one than the expected one as it couldn't add each person views and opinions. (Khristina, 2020)

Similar Systems for Hotel Recommendation

Booking.com

When the Web based travel planner were advancing Booking.com was established in 1996 in Amsterdam. With a little Dutch beginning booking.com was developed which was dependent upon one of the world's driving computerized travel organizations i.e., Part of Booking Property Inc. (NASDAQ: BKNG). The main goal of Booking.com is to make simpler for everybody to encounter the world. Booking.com provides as well as associates many hoteliers by adding their resources into innovation which removes the contact from movement for critical encounters, transportation choices and unimaginable spots to remain – from homes to hotels and other expeditions. Booking.com is subsidiaries of Booking Property Inc. which is one of the biggest travel hubs for both hoteliers and businesspeople as it empowers properties all over the world and develop the organization.

By having 43 dialects and 28 million announced convenience postings offerings including 6.2 million engaged hoteliers and other expeditions to remain, Booking.com makes it simple and provide day to day client assistance service any place we need to go or anything we desire. (Anon., 1996)

Agoda.com

In 2005 Agoda was established and became one of the world's quickest developing internet-based travel booking stages. From its beginnings as a web-based business fire up, Agoda has developed to provide worldwide unified organization of 2 million properties within excess of 200 nations and regions around the globe. It gives travelers simple platform to widen the decision of extravagance and spending plan lodgings, lofts, and other expedition to manage all travel plans and other events.

Agoda which is settled in Singapore is important for Booking Property (Nasdaq: BKNG) and enhanced more than 4,000 staff more than 30 nations. In 38 dialects Agoda.om and Agoda versatile web application are accessible. (Anon., 2005)

Trivago.com

Trivago NV is a Germany-based organization that preferred as a web-based hotel search engine. The platform allows clients to search best ideal hotel, analyze the hotels and book it afterwards. Trivago gathers information or use the APIs from different outsiders' foundation and gives out the data of hotels for best deals and their related information about the lodging, pictures, appraisals, audits, and channels, like value, area, and additional choices. It offers its services to more than 2.5 million hotels and different kinds of expeditions, including over 1.0 million units of elective expeditions, for example, get-away rentals and private apartments in north of 190 nations. It provides its services to its foundation through more than 50 commercial and confined sites and applications in more than 30 dialects. Trivago.com additionally offers promoting hotels and lodgings and inn networks, just as other online travel services and sponsors. Its foremost workplaces are situated in Germany. (Reuters, 2019)

Hotels.com

Hotels.com is leading provider of lodging convenience around the world, offering booking services through its website. Hotels.com provides voyagers probably the wide range of choices for convenience on the net as well as best search experience, including both free and significant chain lodgings just as in thousands of properties around the world. Hotels.com offers the comparison between top class ideal hotels, estimate the cost for the accommodation and provide direct contact with hotel owners and related expedition owners. Hotels.com is part of the Expedia Group of travel companies. (Diener, 1991)

Comparison between the top recommendation system across the world

The two leading Hotel Recommendation Systems; Agoda and Booking.com are corporate kin of Booking Property Inc. Their comparative appearance is like each other. Anyway, they perform to work autonomously and provide their services accordingly. As Agoda comes from Asia which gives some additional openness. While concerning and crossing out arrangements, both the principles as explained by the recommendation system seems they don't utilize it.

Trivago is from the Europe i.e., look through different locales so the rules are found through its connections. It was established in Germany and Expedia is a significant investor.

Agoda and Booking are two distinct platform following the norms and values for hotel booking and recommendation. Both are hotel booking platform that let users to make appointments through the web. While Trivago is a value evaluating website which is basically internet searcher that totals hotels accessible for making an appointment through the web. Trivago provides a connection to hotel booking destination that quite often offers appointment for clients in similar hotels at somewhat various costs at instant of time. For a user, they can begin an inquiry utilizing Trivago first then, evaluating the cost at that time and concluding whether make appointments with Agoda, Booking or some other Hotel booking destinations. (Steves, 2017)

Hotel Recommendation Systems in Nepal

ZenNepal.com

In 2008, zenNepal.com was established and became the first travel agency to offer online hotel booking platform and till now it is assumed as the largest hotel booking agency in Nepal. It has collaborated with more than 4000 hotels in Nepal. In early zenNepal.com started with contract of 60 hotels and reached 100 by 2009. Basically, it was emerging slow but quite progressing. It offers customer service to travelers and hotel partners 24/7. Furthermore, zenNepal provides travelers with domestic and international airline ticketing and other expedition services as well. (Anon., 2008)

Hotels for Nepal

Hotel For Nepal is based upon internet reservation platform that offers the best lodgings in Nepal and a wide scope of providing best search experience for clients around the world. They offer best deal five-star hotels to financial plan hotels. Hotels for Nepal has collaboration with different star hotels, legacy hotels, resorts, and visitor houses in Kathmandu. They expect to give quality convenience benefits that meet the customer itinerary items at sensible rates.

Their platform of lodgings offers an extraordinary rebate conspire with amazing accommodation experience. Customer can basically fill the internet-based structure for hotel booking in Nepal. Certainly, one should pick the lodging that meets his/her spending plan and assumption and send it via conformation e-mail for inn reservation. (Anon., 2016)

Technologies used for Hotel Recommendation System

A hotel recommendation system suggests properties/hotels to a customer/traveler such that they would refer the recommended property/hotels over others.

Present is the information driven world, it would be difficult for the hotel owners to follow the conventional or early heuristic way to suggest many clients a thing that they would really like and like. Hence, a Suggestion platform solve our concern where it requires client's feedback, chronicled association, and even client's socioeconomics to construct a canny model.

To build a recommendation platform, it requires, two sources of data, explicit and implicit signals. Explicit data is the user's direct input, like that a user applies while searching for a hotel Implicit data can be obtained by users' past interactions, for example, the average star rating preferred by the user and so on.
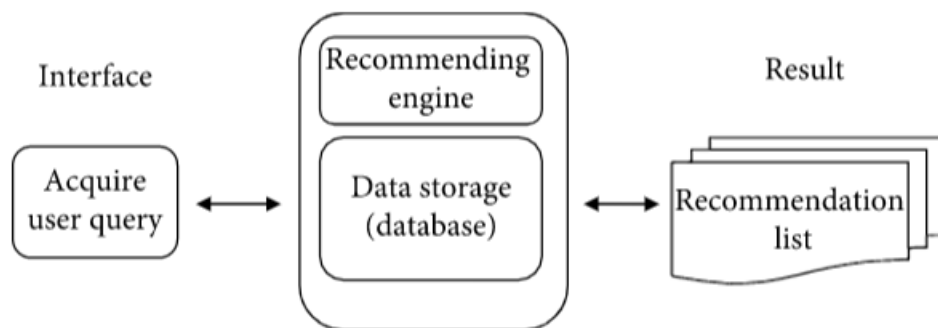

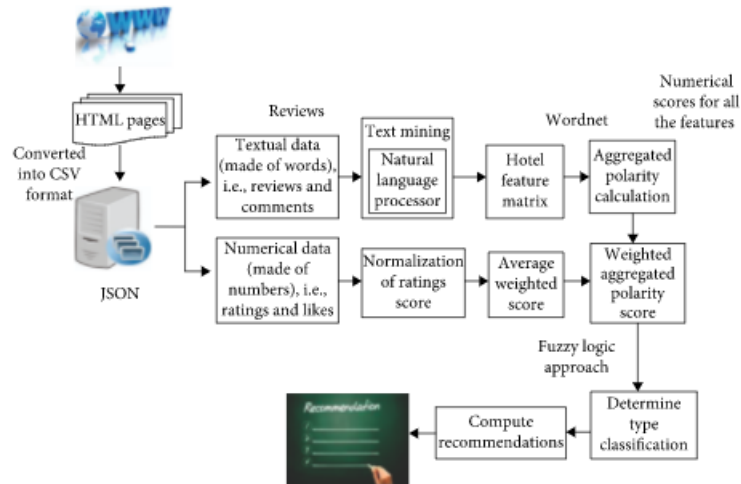Figure 2: Generic architecture of recommender system

Figure 3: The proposed approach for hotel recommendation

Conclusion

For a user, it is always difficult to go through different sites to compare hotels for reservation and it is also more time consuming. If the information of different hotels is included in single platform and user can compare at a time, then it will be less time consuming. If the system can be operated through the web application, then it will provide new search experience for a user and user can have multiple options for the reservation of hotel.

Users these days are quite busy and find quicker way to find solution to the problem and in the context of hotel reservation they always search for good room with ideal price and solution to this problem leads to the good hotel recommendation system.

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