Trip Booking Based On Conditional Rules For External Factors

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Trip Booking Based On Conditional Rules For External Factors

ABSTRACT

Travel booking systems do not currently permit automated travel booking and/or alerts for manual booking that are based on monitoring relevant external factors such as weather. This disclosure describes techniques to enable automated conditional travel bookings. Such automated travel booking can be based on evaluating one or more conditions that the user has set. The user-specified conditions can include relevant external factors, such as the weather.

KEYWORDS

- Travel booking
- Trip reservation
- Flights
- Hotel reservation
- Ground transportation
- User context

BACKGROUND

Currently, booking travel online typically involves searching based on specific dates or date ranges and destinations, followed by booking a suitable option from the list of results that match the search criteria. Such a process cannot effectively accommodate flexible travel preferences or dependencies on external factors, such as weather, local disruptions, strikes, airline bankruptcies, etc. For example, if the prevailing weather is bad, a person may wish to delay booking travel until the weather conditions turn favorable. However, typical travel booking systems do not currently permit automated travel booking and/or alerts for manual booking that are based on monitoring relevant external factors such as the weather.
DESCRIPTION

The techniques described in this disclosure enable conditional travel bookings. Such automated travel booking is based on evaluating one or more conditions that the user has set. The user-specified conditions can include relevant external factors, such as the weather.

For instance, consider a user Alice that wants to travel from Seattle to New York for a business meeting the following week. She is aware that New York is currently experiencing a winter storm and would like to travel only if the weather conditions improve prior to travel. In such a case, the techniques described in this disclosure enable Alice to specify that the system book her travel only if the weather in New York is favorable on the Monday of the following week. Such a condition can be specified in the form of a rule, such as: “Book my flight from Seattle to New York for Wednesday afternoon of the following week only if it snowed less than 4 inches in New York on Monday afternoon” Additionally, Alice can specify similar rules for hotel booking in New York and return flight to Seattle conditional upon the booking of the initial flight as well as the weather.

Fig. 1: Specifying a condition for booking travel
Fig. 1 shows an example of operational implementation of the techniques described in this disclosure. A user (102) wishes to book travel for the following week depending on weather conditions at the destination city of New York at the beginning of the week. The user sends a conditional booking request (112) to a travel service (104). The request specifies a rule (106) that includes a specification of weather conditions along with other information related to travel, such as dates, destination, etc. The booking corresponding to the rule is triggered to be sent to the booking engine (110) based upon information provided by weather service (108) regarding the weather conditions included in the rule. If the weather meets the user-specified rule, the booking is made automatically and corresponding confirmation (114) is provided to the user.

The user can specify the conditional rules for booking travel via any convenient mechanism, such as voice commands, form-based user interface on a website, etc. The described techniques can cover conditional automated booking of multiple different components of a travel itinerary, such as flights, hotel, ground transportation, etc. The techniques described above can be extended in a number of ways, including but not limited to:

- Alerting the user when the conditions specified in a rule are met instead of booking automatically; and
- Providing the ability to specify a variety of external factors, such as strikes, notable news events, business developments, and other matters that can potentially influence travel.

The described techniques can be integrated into any system involved in the process of booking travel. Implementation of the techniques described in this disclosure can elevate the user experience of booking travel. Moreover, facilitating conditional bookings can potentially save money and time wasted in rescheduling or canceling travel booked in advance without
knowledge and consideration of external factors. Further, the ability to specify rules and book
travel automatically alleviate the burden of continual manual monitoring of relevant factors.

CONCLUSION

This disclosure describes techniques to enable automated conditional travel bookings.
Such automated travel booking can be based on evaluating one or more conditions that the user
has set. The user-specified conditions can include relevant external factors, such as the weather.
The described techniques can be applied to cover conditional automated booking of multiple
different components of a travel itinerary, such as flights, hotel, ground transportation, etc. The
described techniques can be integrated into any system involved in the process of booking travel.
Implementation of the techniques described in this disclosure can elevate the user experience of
booking travel, save money and time wasted in rescheduling or canceling advance travel
bookings, and alleviate the burden of continual manual monitoring of relevant factors.