

**National University of Singapore  
School of Computing**

**IT5004 Enterprise Systems Architecture Fundamentals  
Tutorial 3**

**Case Study**

**Easy Booking**

Easy Booking (<http://www.easybooking.biz>) is a new hotel-booking platform that promises the most affordable hotel stay packages. The site contains hundreds of thousands of hotels from all over the globe. Users can book hotels or apartment directly from their online portal or from the EasyBooking iPhone/Android mobile app.

The booking process consists of 5 steps: Hotel Searching, Hotel Selection, Room Selection, Login/Guest Checkout, and Payment. A customer will first have to search for hotel listing by supplying a hotel name (or destination), check-in date, number of nights stay, and number of rooms required. The system will then display the list of available hotels that fits the search criteria. On the listing search result page, the customer can sort the listing by hotel name, price, or review score. The results can also be filtered based on a set of criteria such as pricing, review score, area, accommodation type, and hotel facilities. The customer can also view the reviews associated with each listing. After a hotel is selected, the site will show a list of the available room types (with the room pricing, facilities of the hotel/room, etc). After a room is selected, the page will be redirected to the booking details screen where the details of the booking such as the hotel name, address, check-in date, check-out date, etc are displayed. To confirm the booking, the customer has to log into his/her Easy Booking account, or choose to do a guest checkout by entering his/her details (First Name, Last Name, Email, Phone Number, Country of Passport). On the same screen, special requests can also be indicated such as non-smoking room, twin beds, large bed, high floor, etc. In order to complete the booking process, the customer has to make payment using credit card (card number, expiration date, card holder name, and CVV number). On this screen, customers can also choose to convert their Easy Booking (EB) points for discounts<sup>1</sup>, and/or enter a promotion code for special discount. The final amount after discount from the EB points and/or promotion code should be made known to the user before the credit card details are entered. The system will then display the Booking ID and notify the customer that payment verification is in progress. Within the next 10 minutes, the system will verify whether the credit card details are valid, and email the customer the booking confirmation and the hotel voucher in PDF format once the purchase is successful. The system would also send a copy of the booking confirmation to the hotel administrative staff for their reference.

Anytime before the check in date, customers can manage their bookings by using the "Manage My Booking" button in the email or by logging into his/her Easy Booking account. On the "My Booking" page, customers can select one or more of the following options: Resend Voucher, Change Date, Cancel Booking, Add/Remove Special Requests. When the customer clicks on the "Resend Voucher" button, the system will email the hotel voucher to his/her email address. For bookings where cancellation is allowed, the system will allow users to select the "Change Date" or "Cancel Booking" option. After selecting the "Change Date" option, users can change their check-in date. The system will determine whether there is a need for additional payment, in which the customer would have to pay using his/her credit card to secure the change in date. If the user select "Cancel Booking", the system will refund the payment back to the user and

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<sup>1</sup> This is only applicable for logged in users. 100 EB points can be converted to a discount of \$1.

set the room back as available for booking. The user can also choose to Add/Remove Special Requests if he/she wishes to make changes to the special requests.

2 weeks before the check-in date, Easy Booking will send reminders to their customers to remind them about their booking. For customers who have made their booking through the [www.easybooking.biz](http://www.easybooking.biz) website, the system will send the reminder through email while customers who have made their booking through the EasyBook mobile app will receive push notifications instead.

When the customer arrives at the hotel, the hotel staff will perform the necessary check in process on their own hotel management system. After which, they need to log into the Easy Booking Business portal to confirm arrival for the booking associated with this customer. In the event when customers do not check in the hotel by the end of the day and have not informed the hotel regarding any late check in, the hotel staff would need to log into the Easy Booking Business portal to confirm No-Show status for booking. A no-show will be treated as a cancellation and no-refund will be given (as per hotel policy).

Apart from updating the booking status, Easy Booking also allows hotels to perform other tasks using the Easy Booking Business portal. Hotels can add listings for each room type and indicate the number of rooms available for each room type. To track the availability of each room, hotel staff can update the availability schedule for each room. As this is a very tedious process and hotels often have their own hotel management system (HMS) for scheduling, Easy Booking also provides an API for these HMSs to integrate with Easy Booking. Hotels can also generate a report of the list of booking made for specified period.

1 month after the check-out date (for customers who successfully check-in), Easy Booking will award the customers EB points for successfully using their service to book hotels<sup>2</sup>. In addition, it will email their customers to request for reviews regarding their hotel stay. Customers can rate the hotel based on the following attributes: Value for Money, Location, Staff Service, Hotel Cleanliness, Room Comfort, and Food/Dining. The system will calculate the rating as a combination of these attributes and update the overall rating of the hotel accordingly. Other than rating, customers can also provide a free-text review to describe their stay. To encourage customers to leave reviews for hotels, Easy Booking will reward their customers additional EB points for their effort.

Easy Booking also maintains a call center to answer any enquiries and to manage booking. The hotel/customer can call Easy Booking and an Easy Booking admin staff will log into the Easy Booking Administrator portal and manage the booking. The Easy Booking Administrator portal also allows Easy Booking admin staffs to post special promotion packages.

1. Develop the use case diagram.
2. Produce the fully-developed use case description for the **Add a booking** use case. Note that when writing down the flow of events, think how a system would have to go about processing the use case. You should make your own assumptions (if it is not described in the passage) to ensure that the flow makes sense. State any assumptions after each table (if necessary). Do not forget to indicate what database record(s) is/are created/updated/deleted.

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<sup>2</sup> Members are offered 1 EB point for every dollar spent using the Easy Booking service.