

1. Order a hotel online before a trip.  
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/**  
 * neu-sep18 Assignment1  
 * 1. Order a hotel online before a trip.  
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 */
```

Problem : Order a hotel online before a trip.

Customers :

Data: UserName, Passcode, FirstName, LastName, Birthday, IDType, IDNumber, Address, PhoneNumber, Email

Behaviors : SignIn, SignOut, Search, Reviews, Compare, Return, SubmitOrder, Cancel, Payments, ViewOrders, Setting

Hotels:

Data: Name, Address, PhoneNumber, Email, Pictures, Facilities, Rooms, Rules, Reviews, StarRating

Behaviors: ModifyHotelInfo, AddRoomInfo, ModifyRoomInfo, DeleteRoomInfo, Cancel, ReceiveMoney, Refund, ReplyReviews, Compare

Rooms:

Data:Size, Bed, Price, Pictures, Review, Meals

Connections:

Data: IpAddressData, DomainData, LocalIpAddressData

Behaviors: EstablishConnection,

Website:

Data : URL, Name, IPAddress, PhoneNumber, Hotels, Customers

Behaviors : Register, DeleteUserInfo, SignIn, SignOut, SearchForHotels, BookForHotels, Payments, EmailForNotify, Advertisement, Maps, Recommendation, Orders, SendOrderToHotel

CreditCard

Data : Number, Name, Company, ValidThru, SecurityCode

DebitCard

Data: Number, Name, Company, ValidThru, SecurityCode

Paypal

Data: UserName, Passcode

CardCompany

Data: Interface, AccountData

Behavior: ReceiveTransaction, AuthorizeTransaction, SendTransactionResult

Sequence of invoking behaviors on Objects:

Order a hotel online before a trip:

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Customers customer;  
Connections connection;  
Website bookingWebsite;  
Hotels hiltonHotel;  
CreditCard visaCreditCard;  
DebitCard visaDebitCard;  
Paypal paypal;  
CardCompany visaCompany;
```

if connection is established

customer.Search.Google -> connection, hotels : collectionOfWebsite

Initialize pageNumber = 1

Loop collectionOfWebsite:

if customer.findTheWebsite

bookingWebsite = findTheWebsite

break

if collectionOfWebsite.hasNextPage

pageNumber = pageNumber + 1

else if collectionOfWebsite.hasNextPage

break

customer.SignIn -> bookingWebsite : signInConfirmation

if signInConfirmation equals success

sign in as a customer

else

sign in as a guest customer

customer.search.forHotels -> location, starRating, name, price, bookingWebsite :

hotelResults

Initialize pageNumber = 1

Loop in hotelResults:

if customer.findTheHotel

hiltonHotel = findTheHotel

break

if hotelResults.hasNextPage

pageNumber = pageNumber + 1

else if hotelResults.hasNextPage

break

```

    if this is a guest and has sign up
        customer.SignIn -> customer.UserName, customer.Passcode, bookingWebsite :
signResult
    else if this is a guest and has not sign up
        customer.Register -> customer.FirstName, customer.LastName,
customer.Idtype, customer.IdNumber, customer.PhoneNumber, customer.Email,
bookingWebsite : signResult

    if signResult equals fail
        customer.tryAgainLater

    customer.submitOrder -> hiltonHotel, customer, bookingWebsite :
orderInfoConfirmation

    if orderInfoConfirmation equals success
        /* send payments info to the website */
        customer.payments -> visaCreditCard, customer.Address, bookingWebsite:
paymentsInfoConfirmation
        if paymentsInfoConfirmation equals success
            /* website send payments info to card company */
            bookingWebsite.payments.sendToCardCompany -> visaCreditCard,
customer.Address, customer.FirstName, customer.LastName, CardCompany :
paymentsConfirmation
            if paymentsConfirmation equals success
                bookingWebsite.SendOrderToHotel -> order, Hotel : orderResult
                if orderResult equals success
                    return success to customer
                else
                    bookingWebsite.tryAgainLater
            else
                change another payment method
        else
            change another payment method
    else
        customer.tryAgainLater
else if connection is null
    customer.tryAgainLater

customer.SignOut -> customer, bookingWebsite : response

```