

Problem: Ordering a hotel online before a trip.

Identify Objects and Behaviors:

Thing (Object) / Entity:

Information (Data) / (State)

Services (Behaviors) / Actions

Things:

Consumer:

Data: name, phoneNumber, emailAddress

Behaviors: searchOnInternet, findDesirableWebsite, findNoPages, findDesirableHotel, findNoHotels, bookingHotel, cantBookHotel

Internet:

Data: HotelsCombined, Trivago, Booking, Priceline, Expedia...
(Collection of Websites)

Behaviors: searchForHotelBookingSites

HotelBookingSite:

Data: URL, Hotel[] hotels, BankAccount

Behaviors: searchHotels, compare, placeTheOrder

Hotel:

Data: name, address, room, price

Behavior:

CreditCard:

Data: Type, Number, Name, Company, ExpireDate, SecurityCode

Behavior:

Sequence of invoking behaviors in Objects:

OrderHotelOnline:

Consumer luqing,
Internet internet,
HotelBookingSite Booking,
Hotel desirableHotel,
CreditCard creditCard,
BookingConfirmation response

if internet.isAvailable

luqing.searchOnInternet -> internet, question: Collection of HotelBookingSites

```

pageNumber = 1;
Loop
    if luqing.findNoPages
        break
    end
    luqing.findDesirableWebsite -> internet, question, pageNumber : website
    Booking = website
    if Booking is not empty
        break
    else
        pageNumber++
    end
End
if Booking is not empty or Booking != null
    Booking.searchHotels -> destination, date, people, rooms : Collection of Hotels
    hotelIndex = 0;
    Loop
        if luqing.findNoHotels
            break
        end
        luqing.findDesirableHotel -> destination, date, people, rooms, hotelIndex :
hotel
            desirableHotel = hotel
            if desirableHotel is not empty
                break
            else
                hotelIndex++
            end
        End
        luqing.bookingHotel -> desirableHotel, creditCard, Booking :
BookingConfirmation
        response = BookingConfirmation
    else
        luqing.cantBookHotel
    else
        luqing.browseInternetAfterAWhileBack

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