

Problem : Order a hotel online before a trip

Identify Objects and Behaviors:

Thing(Object)/Entity:

Information(Data)/(State):

Services(Behaviors)/Actions

Thing:

OnlineBookService:

Data: hotels(list of hotel)

Behaviors: searchHotels(), book(), cancel(), update()

Hotel:

Data: Name, location, rooms(list of room)

Behaviors: orderRoom(), releaseRoom(),

hasAvailableRoom()

Trip:

Data: From, Destination, beginTime, endTime

Behaviors:

traveller:

Data: Name, id,

Behaviors:

Sequence of invoking behaviors on objects:

Traveller traveller,

OnlineBookService bookService,

Trip trip,

Hotel hotel

if(trip.isReady()) {

bookService.searchHotels -> trip.from, trip.beginTime,
trip.destination, trip.endTime: Collection of qualified hotels(ordered
by match score);

Loop hotel collection:

if hotel.hasAvailableRoom():

bookService.book()-> traveller.name,

room.id, timeRange

hotel.orderRoom(room.id)

break

end

if (trip.needUpdate()) {

bookService.getRoomByTravellerName() ->

traveller.name: booked room

bookService.cancel(booked room)

hotel.releaseRoom(booked room)

}

}