4. Order food in a restaurant.
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/**
 * neu-sep18 Assignment1
 * 4. Order food in a restaurant.
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Problem : Order food in a restaurant.

   Customer :
     Data: Name, Address, PhoneNumber, Email, FoodPreference
     Behaviors : FindRestaurant, Enter, CheckWorkHour, SearchForMenu, ViewFoodInfo, ViewMenuInfo, ChooseFood, FindTable, Order, Leave, Payments, Eat, Drink, CallWaiter

   Restaurant:
     Data: Name, Address, PhoneNumber, Email, Pictures, Food, Server, Menu, WorkHour
     Behaviors: Service, EditMenuInfo, ReviewOrder, MakeFood, Check, Recommendation, ServeFood, CleanUp

   Food:
     Data: Pictures, Name, Price, Ingredient

   Menu:
     Data: Food

   CreditCard
     Data : Number, Name, Company, ValidThru, SecurityCode

   CardCompany
     Data: Interface, AccountData
     Behavior: ReceiveTransaction, AuthorizeTransaction, SendTransactionResult

Sequence of invoking behaviors on Objects:

Order food in a restaurant.

   Customer customer
   Restaurant restaurant
   Food food
   Menu menu
   CreditCard visaCard

CardCompany visaCompany

customer.findRestaurant -> location : restaurantList
Initialize pageNumber = 1
   Loop in restaurantList:
      if customer findTheRestaurant
         restaurant = findTheRestaurant
         break
      if restaurantList.hasNextPage
         pageNumber = pageNumber +1
      else if restaurantList.notHasNextPage
         break
customer.Enter -> restaurant
customer.CheckWorkHour -> restaurant.WorkHour : workHourResult
if workHourResult is not in work time
     customer.Leave
     customer.FindRestaurantAgain
customer.CallWaiter
restaurant.Service -> customer
customer.FindTable
restaurant.Service -> customer, menu
customer.ViewMenuInfo
customer.ViewFoodInfo
restaurant.Recommendation -> food, customer.FoodPreference, customer
customer.ChooseFood
customer.Order
restaurant.ReviewOrder
restaurant.MakeFood
restaurant.ServeFood
customer.Eat
customer.CallWaiter -> napkin, water
restaurant.Service
customer.Drink
if customer has finished
     customer.Payments -> visaCard, name, address, amount, restaurant :
paymentsResult
     if paymentsResult send success
         restaurant.Check -> visaCard, name, address, amount, visaCompany :
checkResult
         if checkResult equals success
            payment is finished
         else
            customer need to change the payment method
     else if restaurant do not support visa
         customer need to change the payment method
else
     customer.Eat

customer.Drink

customer.Leave
restaurant.CleanUp