Problem 1: Ordering a hotel online before a trip

Objects and Behaviors:

Consumer:

Data: Name, Address, Phone, Identification, Sex

Behaviors: search, reviews, compare, cancel, book

Internet

Date: Google, Airbnb ,Xiechen ,website ,Group of Websites

Behaviors: searchForElectronicWebsites searchForExistingHotel

Electronic Website

Data: URL,HotelInformation,BankAccount

Behaviors: search, sort, display, compare ,placeTheOrder

Hotels

Data: Price, RoomType, Location, LivingPeriod, CheckinDate, NumberofPeople

CreditCard

Data: Number, name, company, expiry, security code

Behavior:

CreditCardCompany

Behavior: authorizeTransaction

Sequence of invoking behaviors on Objects:

Consumer rekon,

Internet internet,

ElectronicWebsite airbnb,

Hotel notliH,

CreditCard card,

CreditCardCompany mastercard,

BookingConfirmation response

If Internet.isAvailable

rekon.searchInInternet -> internet, question : Collection of ElectronicWebsite

//rekon.findDesirableWebsiteInFirstPage -> Collection of Websites : website

pageNumber = 1;

Loop

if rekon.findsNoPages

break

end

rekon.findDesirableWebsiteInAPage -> internet, question, page Number :

website

airbnb = website;

If airbnb is not empty

break

else

pageNumber = pageNumber + 1

end

End

airbnb = website

If airbnb is not empty or airbnb!=null

airbnb.searchExistinghotel -> Price, RoomType, Location, LivingPeriod, CheckinDate, NumberofPeople

notliH = hotel

rekon.bookhotel ->notliH, Name, Address, Phone, Identification, Sex ,creditCard, , Airbnb :

BookingConfirmation

response = bookingConfirmation

Else

rekon.cantBookHotelinformation

Else

rekon.browseInternetAfterAWhileBack

Problem 2: Design an app for calling taxis (e.g. Uber);

Objects and Behaviors:

InternetCarcallingService

Data : customersname, customersphoneNumber,driverphonenumber,drivername, loginToAPPService

Behavior: connect, reciveConfirmation, sendRequset, authorize

Caller

Data: pickUpLocation, name, money,destination,phonenumber

Behavior: makeOrder,cacelOrder

Driver

Data: phonenumber, name,cartype

Behavior: receiveOrder, answer, cancelOrder,callCaller,confirmation,send

loggedInToAppService,pickup

Sequence of Flow - Invoke Objects with Behaviors

Caller xayah

Driver vayne;

InternetCarcallingService lyft;

xayah.loginToAppService -> lyft : authorize

if( authorize is true )

xayah.connect -> lyft,

xayah sendRequset

vayne.loginToAppService -> lyft : authorize

vayne : connected

vayne receiveOrder

if receiveOreder is true

Loop

xayah.send -> pickUpLocation, name, money,destination

vayne.respond -> confirmation

if confirmation is true

if xayah want to talk to vayne

lyft send vayne.phonenumber to xayah

if vayne want to talk to xayah

lyft.send xayah.phonenumber to xayah

end

end

end

else

vayne.pickup 🡪 xayah

else

end

end

Assignment 3:Design a job searching and posting platform.

Identify Objects and Behaviors:

Thing (Object)/Entity:

Information (Data)/(State):

Services (Behaviors)/Actions

Things :

Finder:

Data: Name, Address, Phone,Ability,expectedminSalary,resume

Behaviors : send, search, reviews, compare, accept, reject,contact,jobrequest

Internet

Data : Amazon, BestBuy, Alibaba, Google, website2,

: Group of Websites (Collection of Websites)

Behaviors : searchForElectronicWebsites

ElectronicWebsite

Data : URL, jobs,empolyerinformation

Behaviors : search, sort, display, compare ,sendInfo

Emploer

Data : expectedAbility,mostaffordSalary,jobpost

Behaviors:compare,sendoffer,reject

Sequence of invoking behaviors on Objects:

job searching and posting platform.:

finder poter,

employer joker,

Internet internet

ElectronicWebsite LinkedIn

If Internet.isAvailable

poter.searchInInternet -> internet, question : Collection of ElectronicWebsite

//poter.findDesirableWebsiteInFirstPage -> Collection of Websites : website

pageNumber = 1;

Loop

if poter.findsNoPages

break

end

poter.findDesirableWebsiteInAPage -> internet, question, page Number :

website

linkedIn = website;

If linkedIN is not empty

break

else

pageNumber = pageNumber + 1

end

End

Iinkedin = website

Joker.send expectedAbility,mostaffordSalary,jobpost

If linkedin is not empty or linkedin!=null

linkedin.searchForEmployer -> expectedAbility,mostaffordSalary,jobpost

if poter’s ability >= joker.expectedAbility and joker’s mostaffordSalary >= poter’s expectedminSalary and joker.jobpost = poter.jobrequset

then poter.send poter.resume to joker.

If joker.sendoffer

Then poter.accept

Else

Poter.cantFind jobrequest

Else

Poter. browseInternetAfterAWhileBack

Problem 4: find a restaurant online

Identify Objects and Behaviors:

Thing (Object)/Entity:

Information (Data)/(State):

Services (Behaviors)/Actions

Things :

Consumer:

Data: Name, Address, Phone

Behaviors :go, search, reviews, compare, return

Internet

Data : Yelp, Seamless, website2,

: Group of Websites (Collection of Websites)

Behaviors : searchForElectronicWebsites

ElectronicWebsite

Data : URL, Product[] products, BankAccount

Behaviors : search, sort, display, compare

Restaurant

Data : Price, Type, menu, size, opening time, room

Behavior:

Sequence of invoking behaviors on Objects:

find a restaurant online:

Consumer dante,

Internet internet,

ElectronicWebsite Yelp,

Restaurant ABC,

If Internet.isAvailable

dante.searchInInternet -> internet, question : Collection of ElectronicWebsite

//dante.findDesirableWebsiteInFirstPage -> Collection of Websites : website

pageNumber = 1;

Loop

if dante.findsNoPages

break

end

dante.findDesirableWebsiteInAPage -> internet, question, page Number :

website

Yelp = website;

If Yelp is not empty

break

else

pageNumber = pageNumber + 1

end

End

Yelp = website

If Yelp is not empty or Yelp!=null

Yelp.searchForRestaurant -> Price, Type, menu, size, opening time, room : Collection of Restaurant

ABC = laptop

dante.go ->ABC:

Else

dante.cantgoRestaurant

Else

dante.browseInternetAfterAWhileBack