1.Order a hotel online before a trip

Objects and Behaviours:

Consumer
Data:Name, Address,Phone, Creditcard
Behavior: searchOnline,pay,compare,cancel,bookRoom

Internet
Data:booking.com, trivago,Qunar:Group of Websites
Behavior: searchForWebsites

Website:
Data: URL,Product[] products,BankAccount
Behavior: search, sort,display,compare,response

Hotel
Data: name,price,date,address
Behavior:isRoomAvailable, response

Creditcard
Data:Number,name,company,expiry,securityCode
Behavior:

Sequence of invoking behaviours on Objects:

```
Consumer  Alice
Internet internet
Website  Qunar
Creditcard mycard

If  Internet.isAvailable
    Alice.searchOnline -> internet: Collection of ElectronicWebsit
    pageNumber =1;
    LOOP
        if Alice.findsNoPage
            break
        end
        Alice.findDesirablePage -> internet,pageNumber:website
        Qunar=website
    END
    If Qunar.isAvailable
        Qunar.searchForHotel -> priceRange,name,address:Collection of Hotels
     end
     Alice.bookRoom-> mycard, Qunar:response confirmation
     Else
       Alice.canntBookRoom
 Else
   Alice.failToUseInternet
```

2.Design an app for calling taxis(e.g Uber)
Objects and Behaviours:

Customer
Data: name,address,iphone, Creditcard
Behavior:editDestination,callForTaxi,cancelOrder,pay

TaxiApp
Data:Driver,Customer,TravelTools,bankAccount

Behavior:displayMap,receiveOrder,searchForCars,sendMessage,receiveMessage,sendOrderToDriver,guideDriverToDestination,makeCallsToDriver,makeCallsToCustomer,grade,closeTransaction,confirm,waitTime,

TravelTools
Data:carType,carId,Insurance,Service
Behavior:

Driver:
Data:name,id,Insurance,address,iphone,creditCard
Behavior:

CreditCard:
Data:Number,name,company,expiry,securityCode
Behivor:authorizeByBank

Sequence of invoking behaviours on Objects:
Customer John
TaxiApp uber
Driver driver
CreditCard creditCard

```
If John's iPhone is ok And TaxiApp on his phone can work
   John.callForTaxi -> uber:  search for driver and provide driverInfo
   If John.cancelOrder
      uber.sendMessageToDriver and closeTrasanction
   else
        uber.guideDriverToDestination(John's current position)
          if uber.waitTime>10
             uber.closeTransaction
          else
           uber.confirm and uber.guideDriverToDestination(john's destination)-> creditCard,
else
   john.canntCallTaxi
```

3.Design a job searching and posting platform

Objects and Behaviours:

JobSeeker
Data:name,address,iphone,email
Behavior:editResume,searchJobs,getName,getAdd,getIphone,getEmail,loginToWebPlatform

webPlatform
Data:URL,Job[] jobs,JobSeeker,Company
Behavior:findJobs, companyReviews,compare,findResume,postJobs,authorize,uplode

Company
Data:name,address,phone,
Behavior:edit,releaseJobs,getName,getAdd,getPhone,loginToWebPlatform

Sequence of invoking behaviours on Objects:

```
JobSeeker peter
webPlatform website
Company company

If website.isAvailable
  If peter.loginToWebPlatform -> website: authorize
        peter.searchJobs -> website: collection jobs
         pageNumber=1;
         LOOP
             if peter.findsNoPages
                    break
             end
              if peter.findDesirableJob
                  peter.applicateJob
              else
                   pageNumber=pageNumber+1
              end
          END
   else if company.loginToWebPlatform -> website:authorize
          company.releaseJobs -> website:postJobs
   end
else
   website.isUnAvailable
```

4.Order food in a restaurant

Objects and Behaviours:

Customer

Data:name,address,iphone,BankAccount

Behavior:searchFood,orderFood,compare,cancelOrder,pay,grade

Restaurant

Data:name,address,iphone,BankAccount

Behavior:

OrderService

Data:Product[] products

Behavior:search,sort,display,compare,placeTheOrder,return ,closeTransanction

CreditCard

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

Behavior:

Sequence of invoking behaviours on Objects:

```
Customer peter
Restaurant chinaDish
OrderService orderServiceSys
CreditCard card

If OrderService.isAvaliable
           peter.searchFood  -> orderServiceSys : Collect of dishes
           pageNumber = 1;
           LOOP
                      if peter.findsNoPages
                                 break
                      else if peter.findDesirableFood
```

```
                    peter.orderFood -> orderServiceSys,card
                end
                if peter.wantsTocancelOrder
                    peter.cancelOrder -> orderServiceSys
                end
        END
else
        peter.cantOrder
end
```

5.Design a course registration platform
Objects and Behaviours:

User
  Data: name,id,address,iphone,email
  Behavior:login, logout, search,sort,cancel

CouseRegisterSystem
  Data: courseName,courseID,Date,Address,Status,authorize
  Behavior:loginSystem, logoutSystem,add, delete, compare,sort,searchCouse, displaceInfo,showStatus, confirm

Student
  Data: StuName,StuID,iphone,address,email
  Behavior:search,login,logout,sort,cancel

Teacher
  Data:TName,TID,iphone,address,email
  Behavior:login,logout,search,sort,add,delete

Class
  Data: className,classNo,status
  Behavior:checkStatus

Sequence of invoking behaviours on Objects:

```
Student stu
Teacher teacher
CouseRegisterSys system
Class class

If system.isAvailable
   If stu.login is ok  -> system :authorize
   else
     stu.loginError
   end
    stu.seachForClass  -> system: collect classes
    LOOP
        if stu.findNoClass
             break
        end
        if stu.findDesirableClass And class.status is Available
           stu.chooseClass  -> system
        else
             pageNumber=pageNumber+1
        end
        if stu.wantToCancel
            stu.cancel  -> system
        end
     END
else
     stu.cantChooseClass
```