Assignment1

Name: Ruwei Yu

1: Design a course management system.

- Institution.
  - Data: name, years.
  - Behaviors: getAllcourse, signCanvas, assignProfessor.
- Canvas
  - Behaviors: addCourse.
- Professor
  - Data: name, ID, courseTeaching
  - Behaviors: login, addSyllabus, addAssignments, postAnnouncements.

Institution NU;

Professor x;

Canvas: canvas

If NU is not using canvas

NU.signCanvas(name,years);//signing with canvas with the school'name and years of length.

canvas.addCourse(NU.getAllcourse());//add all the courses to canvas which the school provides.

NU.assignProfessor(x.name, x.courseTeaching); //the school assign the courses that the professor will be teaching.

x.login(name,ID); // login to the canvas platform.

x.addSyllabus();

x.addAssignments();

x.postAnnouncements();

else

use another course management system.

2: Design a pet adoption platform.

- Adopter
  - Data: name, platformID, preference.
  - Behaviors: search, adopt, receive.
- Platform
  - pet

    - Behaviors: checkout, send, cancel, getAllpet.
- Delivery company
    - Behaviors: ship.
- Pet
    - Data: breed, color, age.
    - Behaviors: getVaccine.

Adopter: jack;

Platform: x;

Delivery company: USP;

Pet: y = jack.search(breed, color, age, preference, x.getAllpet());

Jack.login(name, platformID);

If y is available

    y.getVaccine();

    jack.adopt(y);

    x.checkOut(jack.name, jack.address);

    if jack changed mind

        x.cancel (y);

    else

        x.send(y,UPS);

        UPS.ship(y);

        Jack.receive(y);

Else

    Pet y is not found;

3. Design an app to book airline ticket.

- BookingApp
    - Data: filight
    - Behavior: checkout, refund, reschedule.
- Customer
    - Data: name, time.
    - Behaviors: search, purchase,cancel,change.
- Flight

    - Data: time, price.

Customer alex;

BookingApp: y;

Flight a = alex.search(y.flight,time,).

If a is not sold out

  Alex.purchase(a);

  y.checkout(a);

  if alex changes schedule

    alex.change(a);

    y.reschedule(a);

  if alex is not traveling anymore

    alex.cancel(a);

    y.refund(a);

else

a is sold out;

4. Design a course registration platform.

- Student:
    - Data: name, year, ID,courseNeed.
    - Behavior: search, login.
- Platform:
    - Data: courseList
    - Behavior: register, drop.
- Course
    - Data: courseList

Student: adam;

Platform: w;

Adam.login(name,year,ID);

Course z = adam.search(adam. courseNeed, w.courseList);

If z is available

w.register(z);

if adam made mistake

w.drop(z);

else

z is not available for this platform;

5. Order food in a food delivery app.(Like Uber Eats)

- Driver
  - Data: name, rating
  - Behavior: getIncar, pickFood, arrived, deliver.
- Customer
  - Data: foodpreference,name, password.
  - Behavior: login, search, purchase.
- Uber
  - Data: restaurantsList.
  - Behavior: getDriver, noticeRestaurant, noticeArrival.
- Restaurant:
  - Data: food.

Customer: y;

Uber: z.

x.login(x.name,x.password);

Restaurant w = x.search(z.restaurantList, foodpreference);

y.purchase();

z. noticeRestaurant(w);

Driver x=z.getDriver();

x.getIncar();

x. pickFood();

x. arrived();

x.deliver();