

Problem 1: Design a course registration platform

Objects and Behaviors:

InternetService:

Data: IsConnected

Behaviors: Connect, Reconnect

Student:

Data: Name, StudentId, listOfCourses

Behaviors: LogIntoThePlatform, SearchCourse, CheckAvailability, Enrol, Pay, findAlternative

Platform Website:

Data: URL, Courses

Behaviors: Search, Display, Register, showRegisteredCourses

Course:

Data: Name, Date, Lecturer, Description, RemainingSeats, Credits

Behaviors:

Lecturer:

Data: Name, Email, OfficeHour

Behaviors: replyEmail, agreeToRegister

Bank

Data:

Behaviors: authorizedTransaction

Sequence of Invoking behaviors on objects

CourseRegistrationPlatform

Student Xin;

if Internet.isConnected:

 Xin.LogInToThePlatform -> userName, pin: login

 loop for Course: course in Xin.listOfCourses:

 Xin.SearchCourse(course.name) —> course: remainingSeats, lecturer..etc

 if course.remainingSeats > 1:

 Xin.enroll

 else

 Xin.contactLecturer(course.lectruer.Email)

 if lecturer.replyEmail and lecturer.agreeToRegister:

 Xin.enrol

 else:

 Xin.findAlternative —> course: add course to listOfCourses

 Xin.enrol

 Xin.pay

 bank.authorizeTransaction

 Platform.showRegisteredCoursee

else:

 Internet.Reconnct

end

Plactform Website:
Data