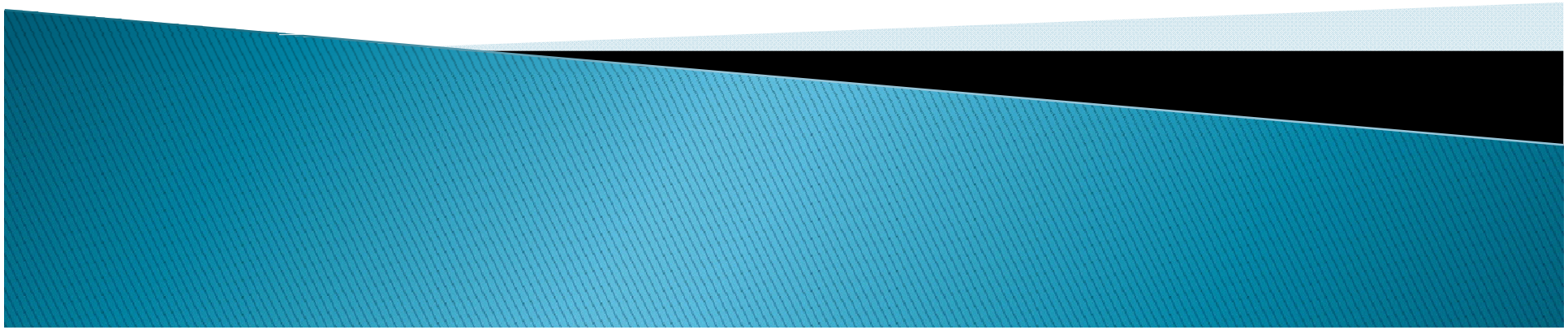
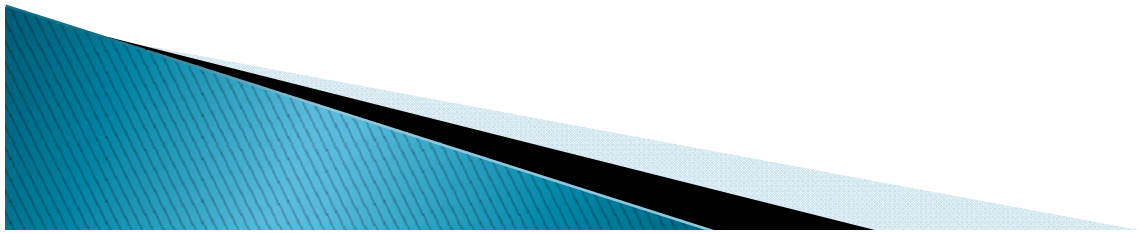
Software engineering

2010- Schedule design



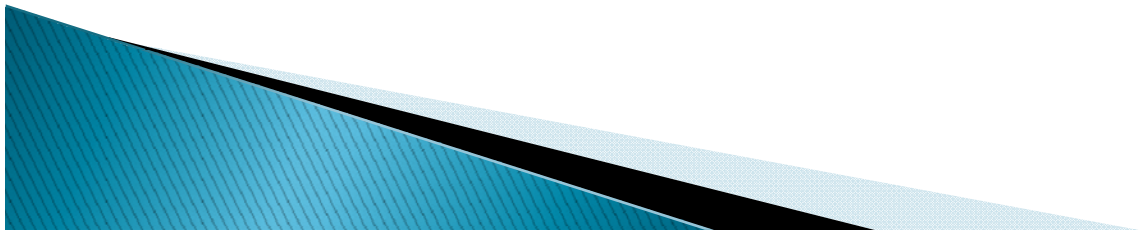
Summary

- Requirements
- Use case identification
- Use case construction
- Class construction
- Class Diagram



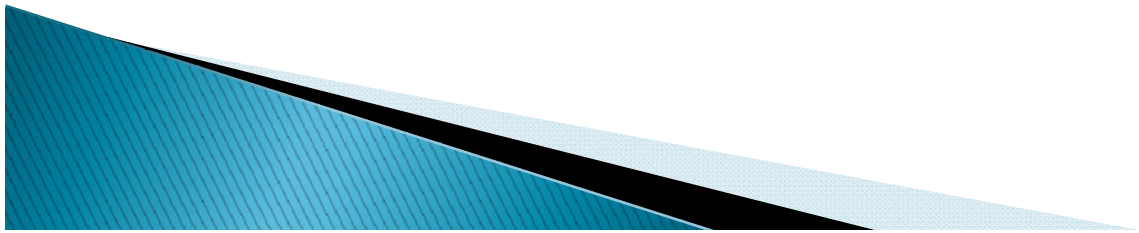
Requirements for schedule

- Consultation
  - Students
  - Professors
- Informations
  - Courses hours
  - Subject of course
  - Time of course
- Security for user
  - Id
  - Pass



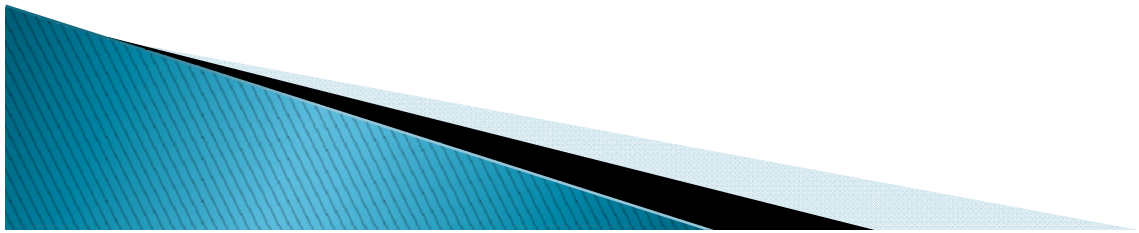
Use case identification

- Actors
  - Students
  - Professors
- System
  - Data base of university

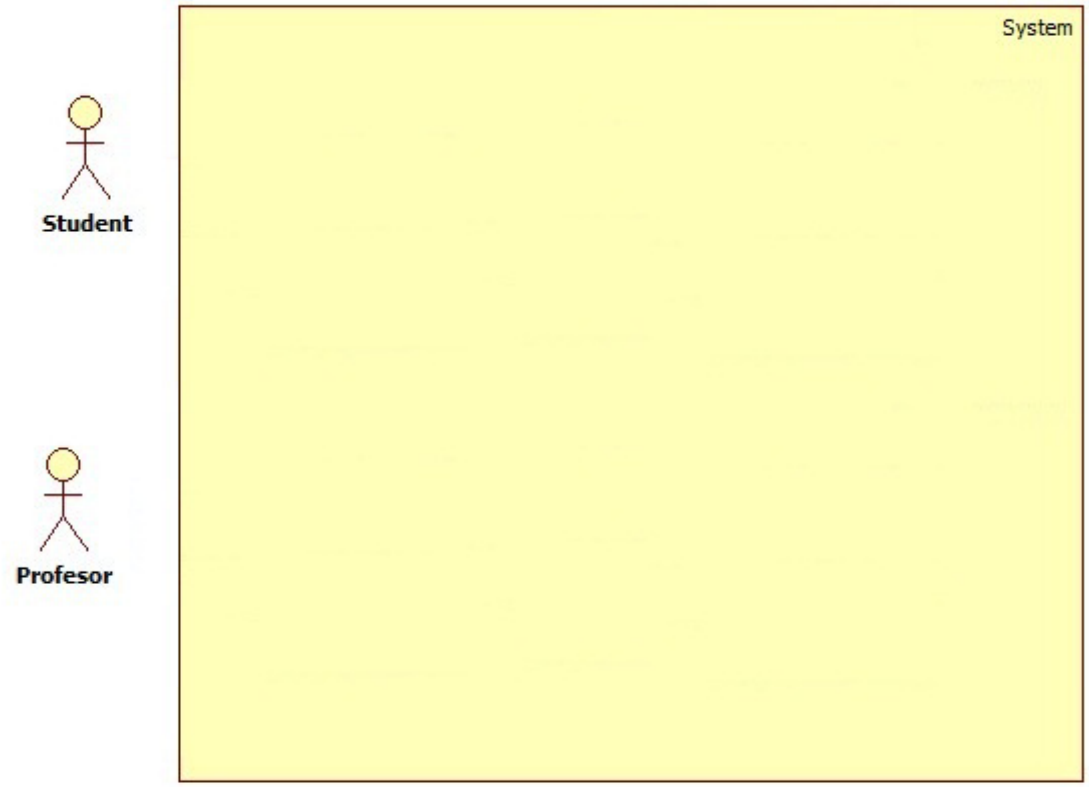


Use case identification

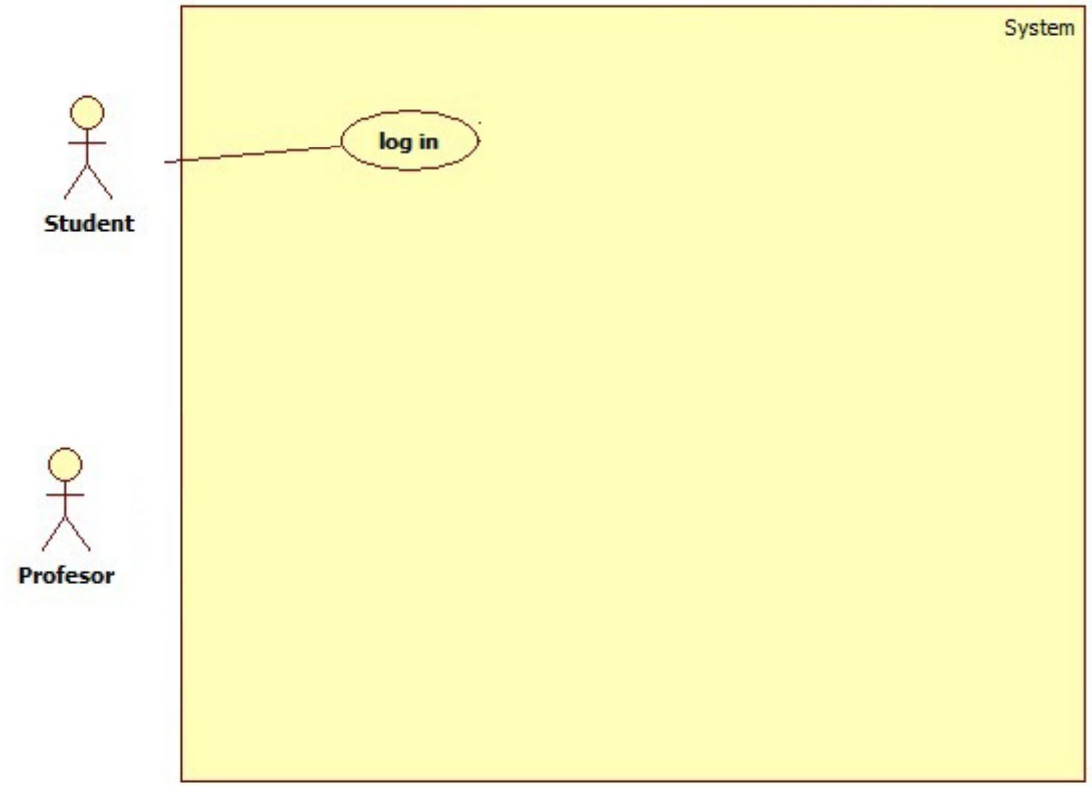
- Action
  - Each one
    - Log in/Create an account
    - Register/delete a class
    - Check class
  - Ony professor
    - Create/delete class
    - Check students



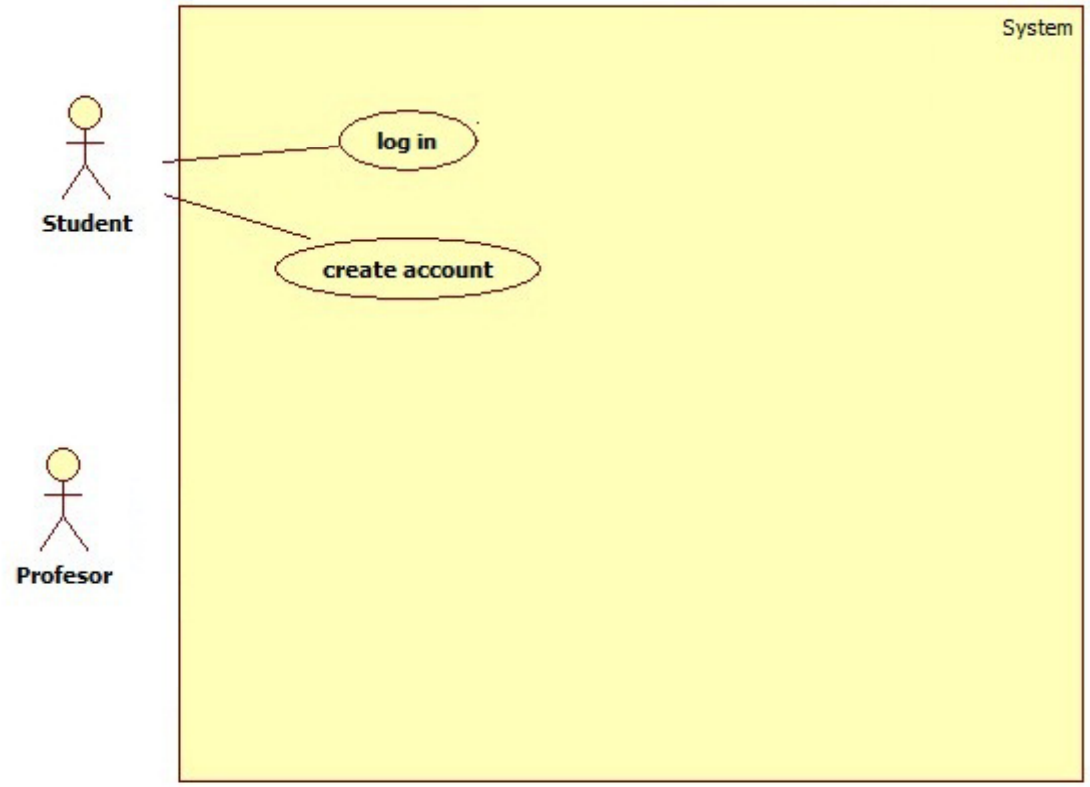
Use case construction



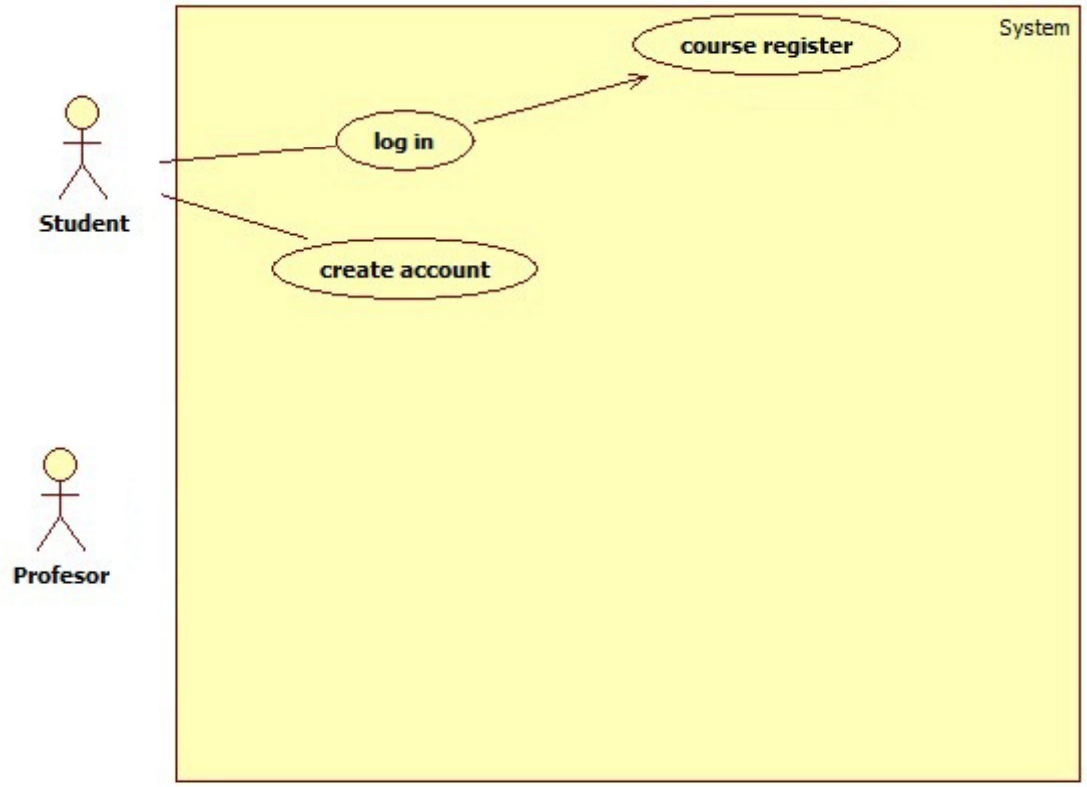
Use case construction



Use case construction



Use case construction



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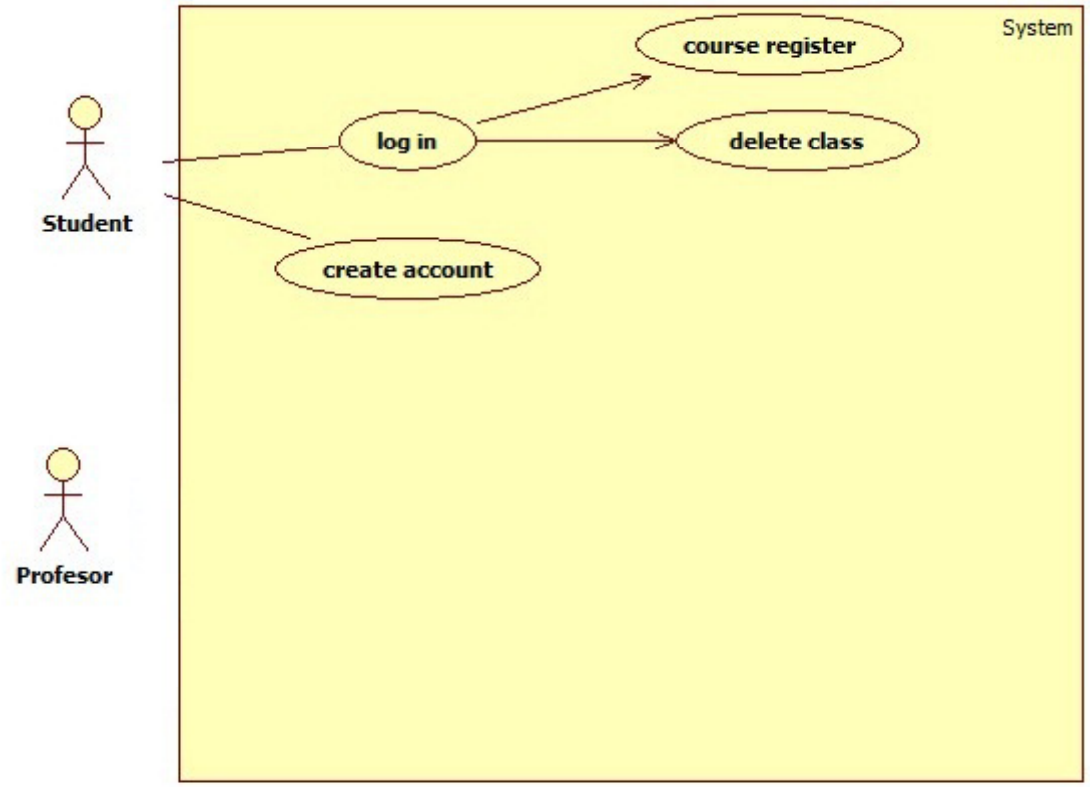
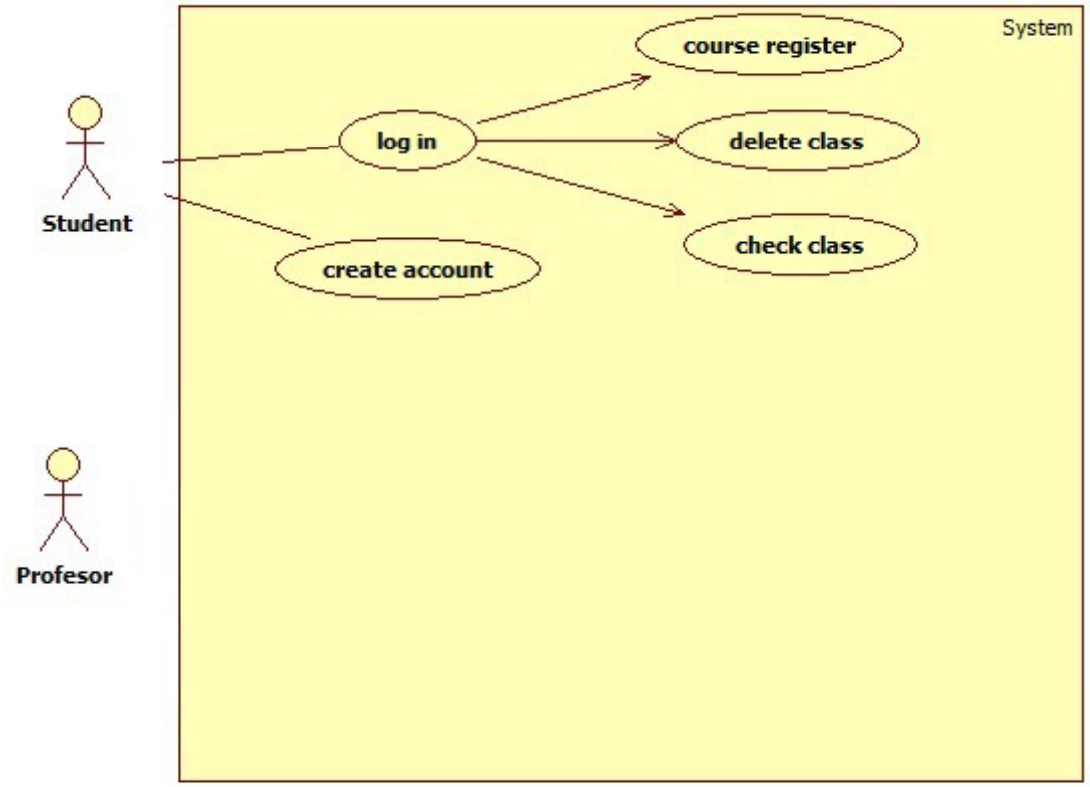


Use case construction



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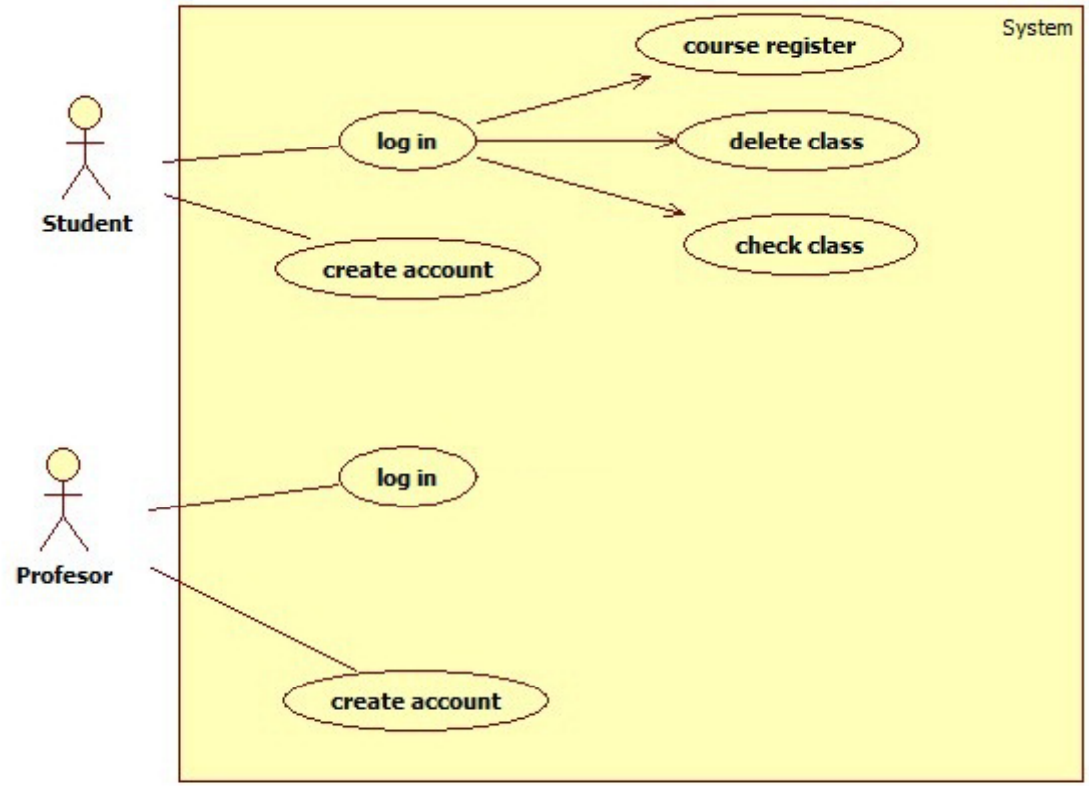
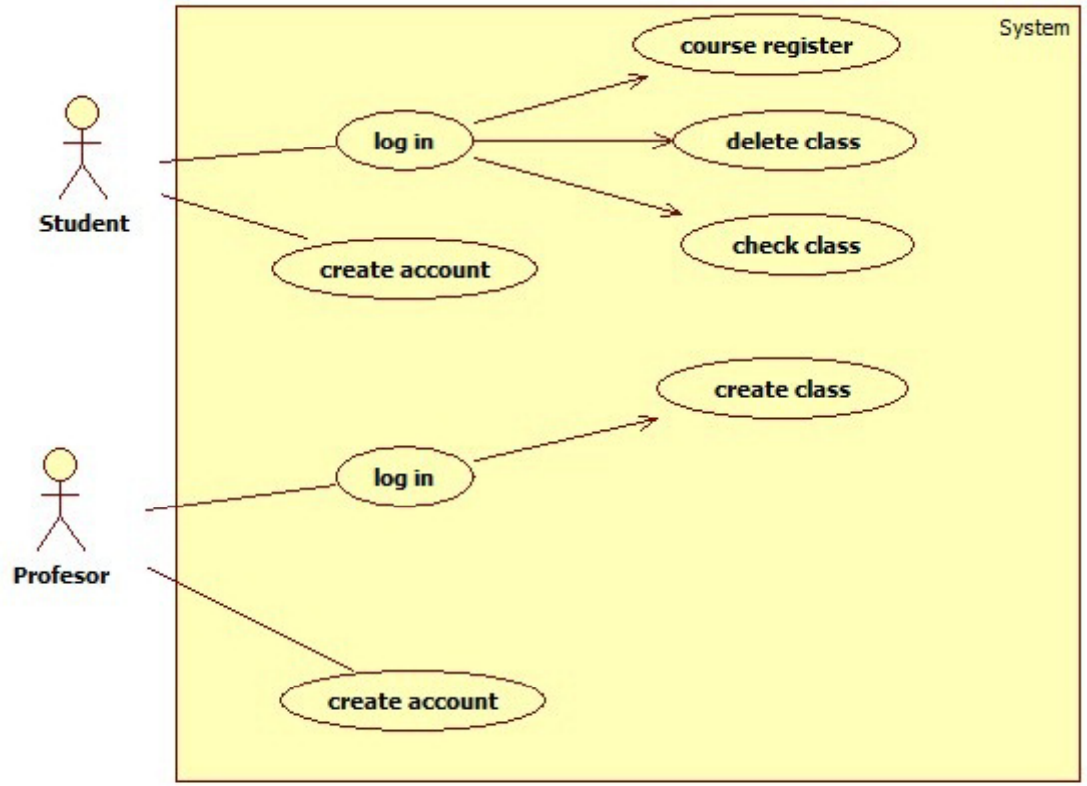
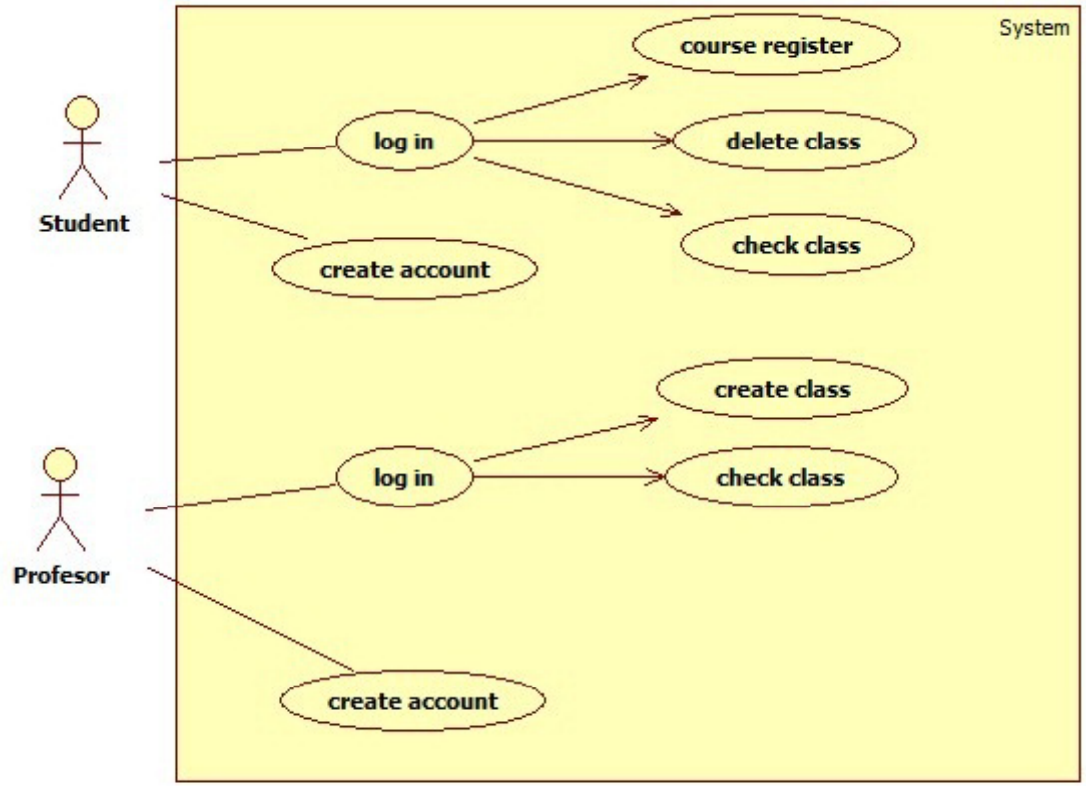


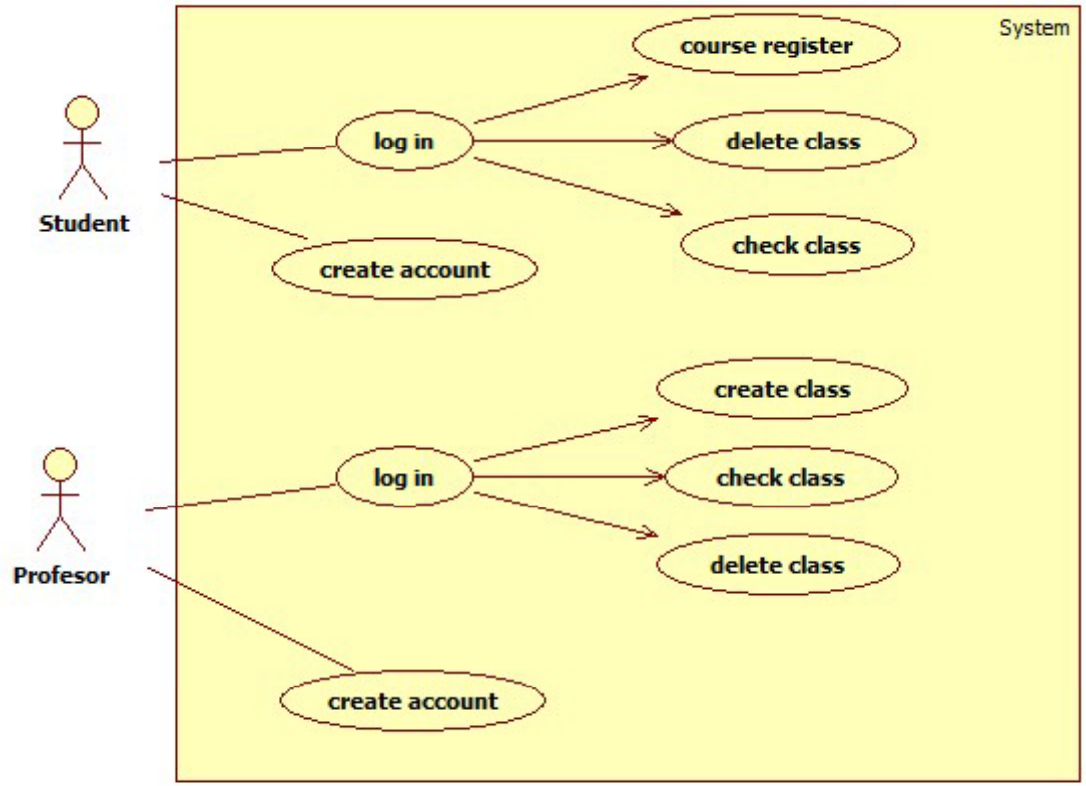
Use case construction



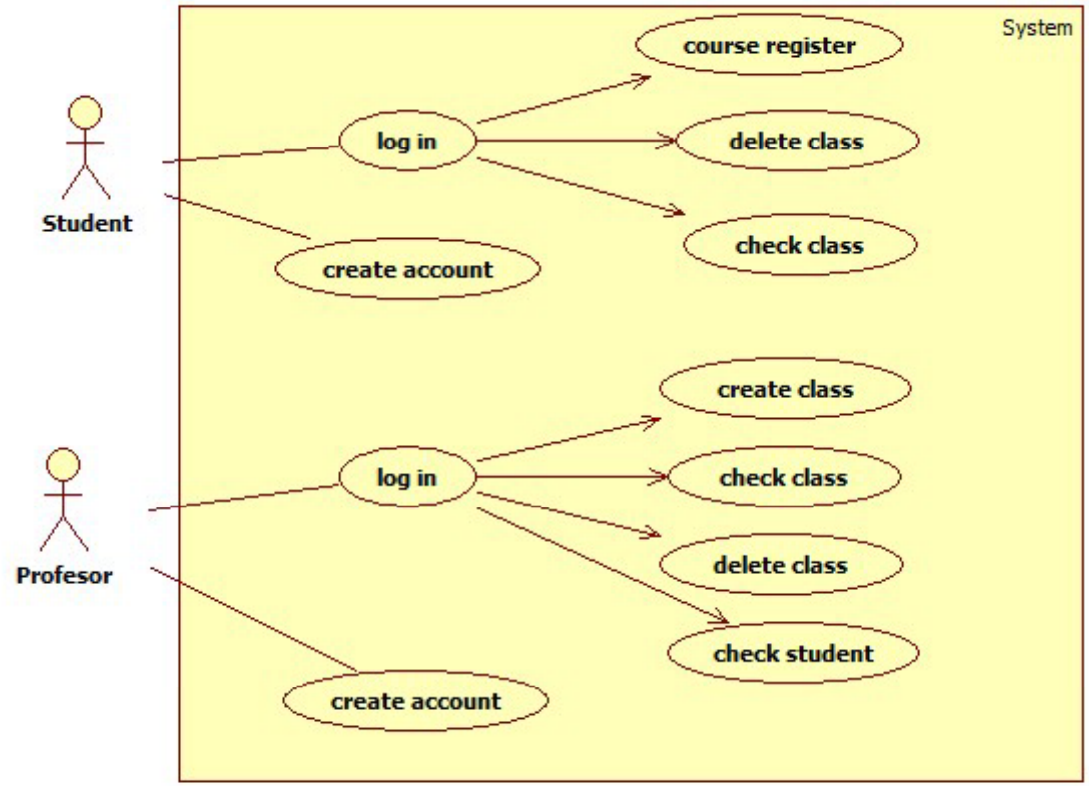
Use case construction



Use case construction

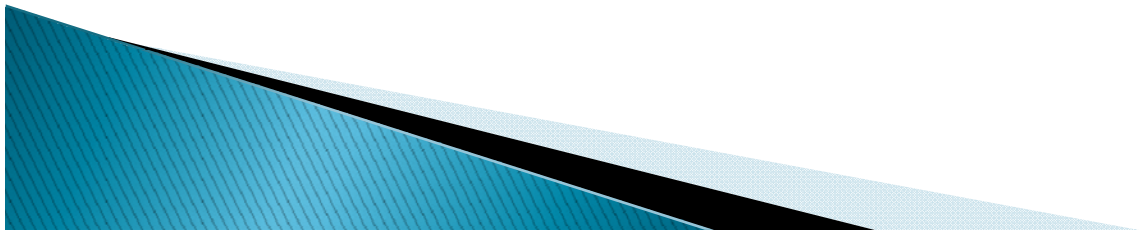


Use case construction

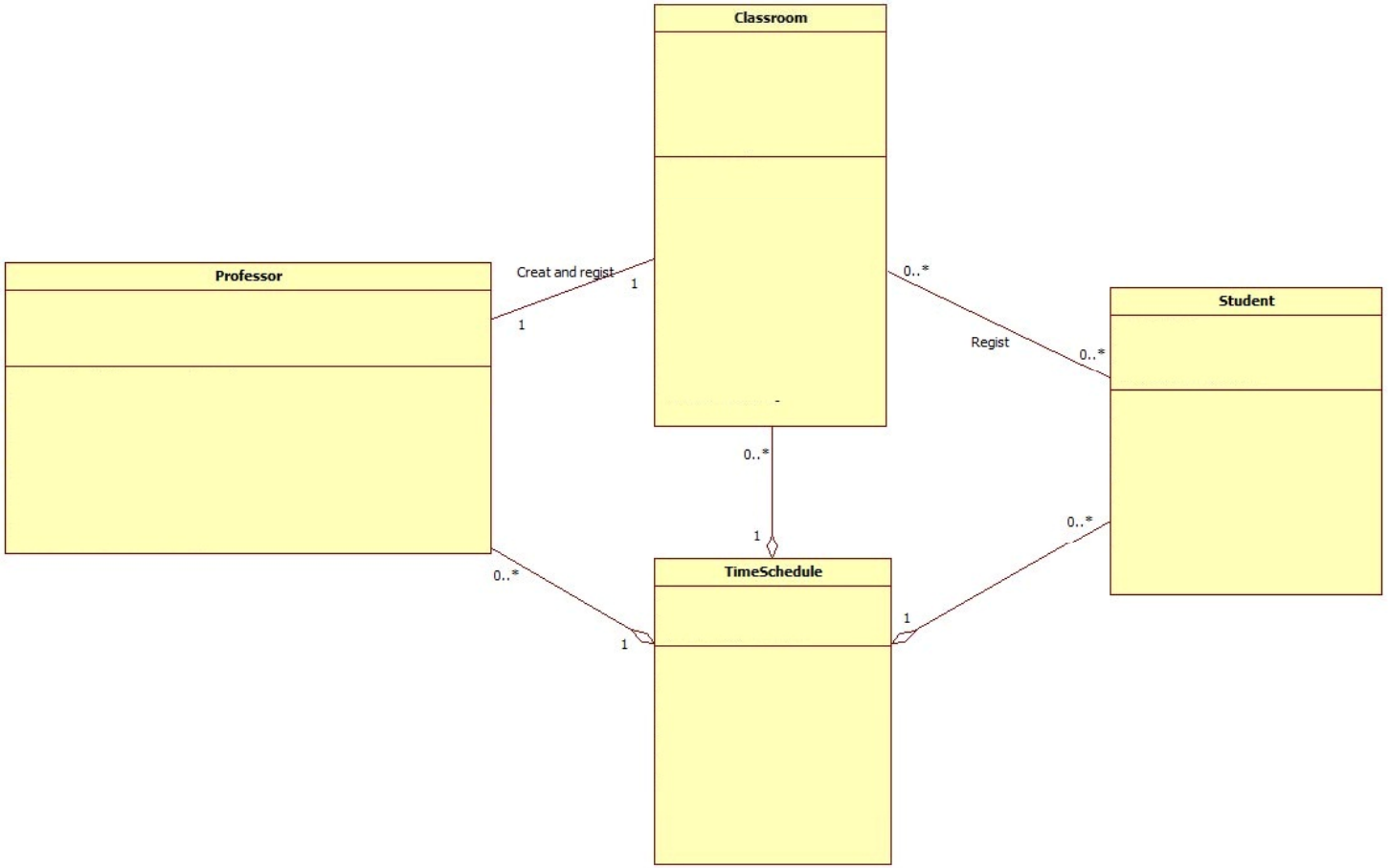


Class diagramme

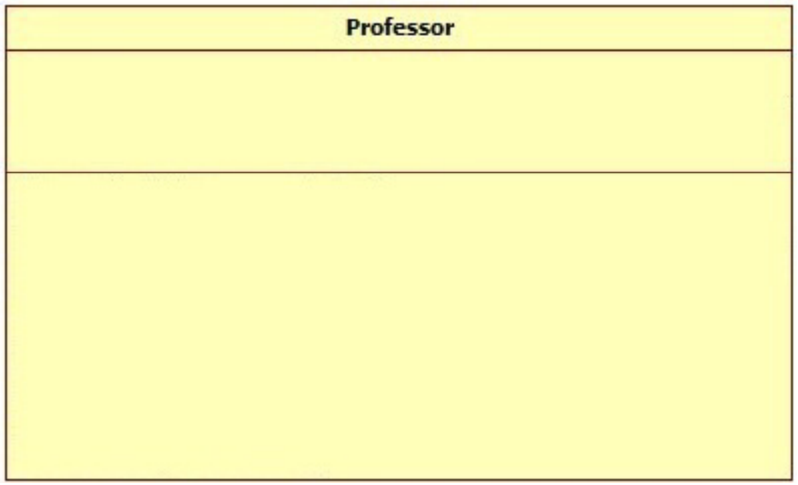
- Class name
- Attributes
- Functions



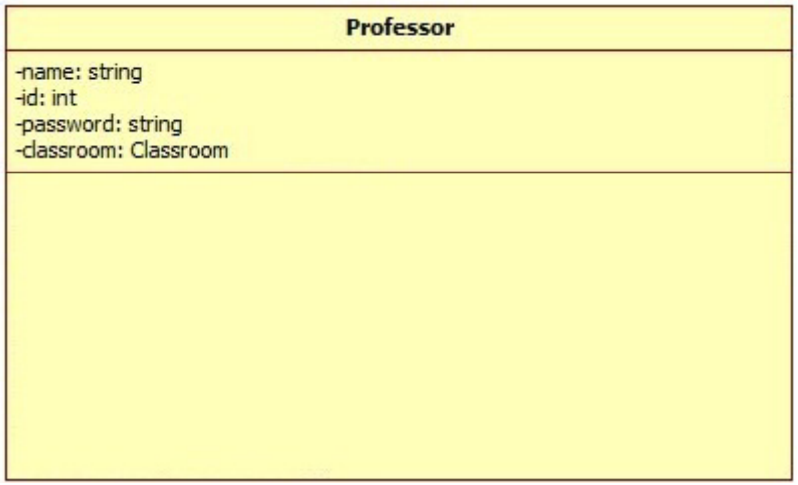
Class name


Classroom
Professor
Creat and regist
1
1
0..*
Regist
0..*
Student
0..*
1
TimeSchedule
0..*
1
1
0..*

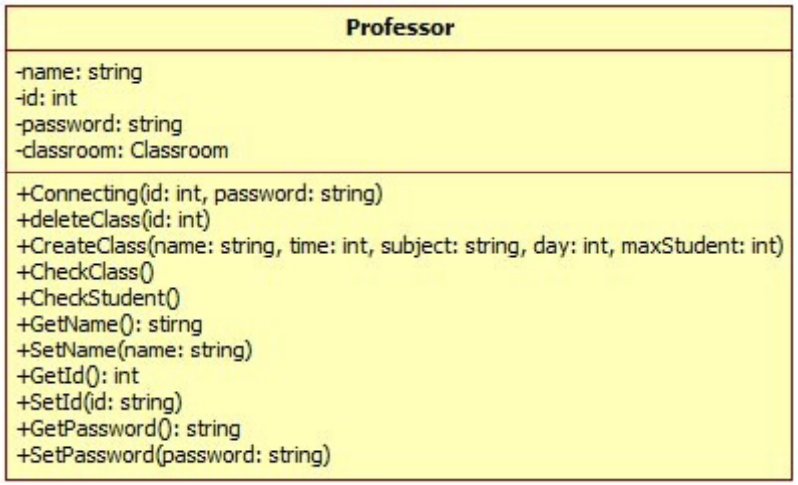
Class professor



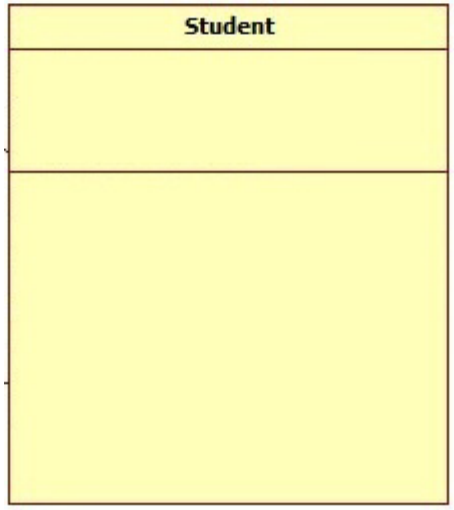
Attributes


Professor
-name: string
-id: int
-password: string
-classroom: Classroom

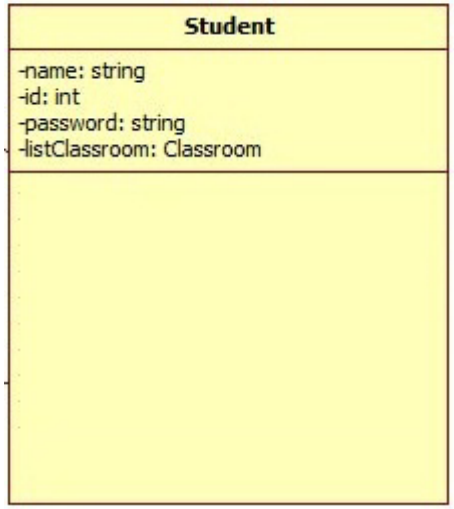
Functions


Professor
-name: string
-id: int
-password: string
-classroom: Classroom
+Connecting(id: int, password: string)
+deleteClass(id: int)
+CreateClass(name: string, time: int, subject: string, day: int, maxStudent: int)
+CheckClass()
+CheckStudent()
+GetName(): stirng
+SetName(name: string)
+GetId(): int
+SetId(id: string)
+GetPassword(): string
+SetPassword(password: string)

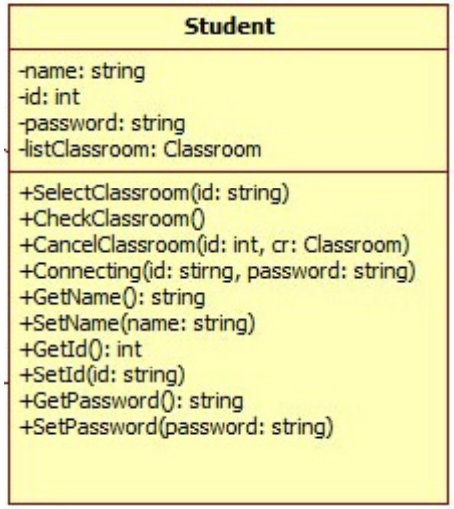
Class student



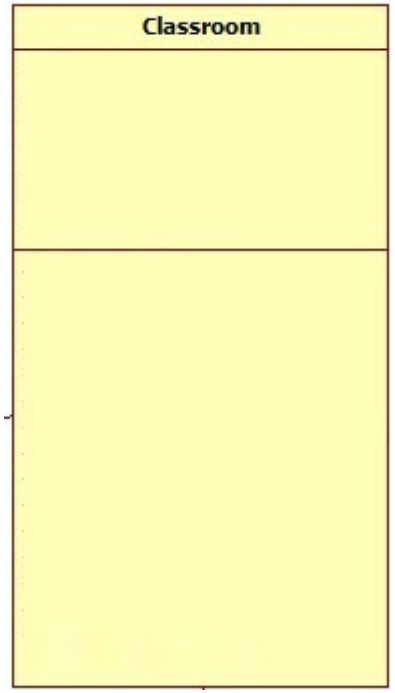
Attributes


Student
-name: string
-id: int
-password: string
-listClassroom: Classroom

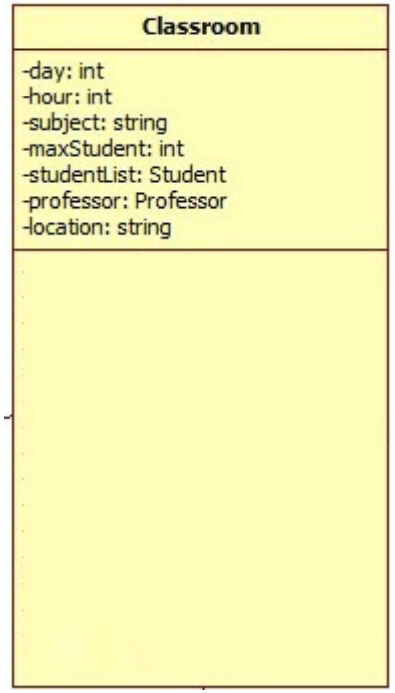
Functions


Student
-name: string
-id: int
-password: string
-listClassroom: Classroom
+SelectClassroom(id: string)
+CheckClassroom()
+CancelClassroom(id: int, cr: Classroom)
+Connecting(id: stirng, password: string)
+GetName(): string
+SetName(name: string)
+GetId(): int
+SetId(id: string)
+GetPassword(): string
+SetPassword(password: string)

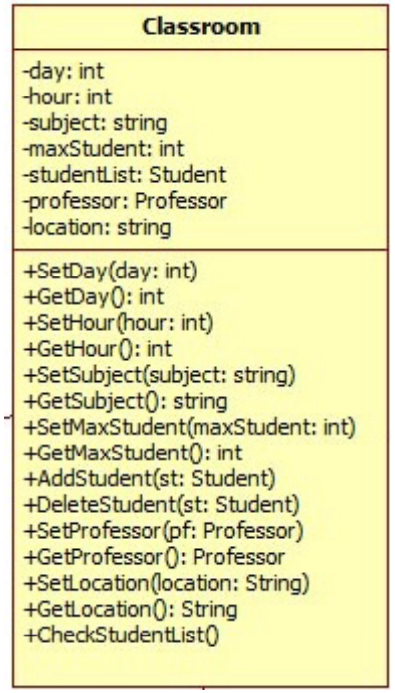
Class classroom



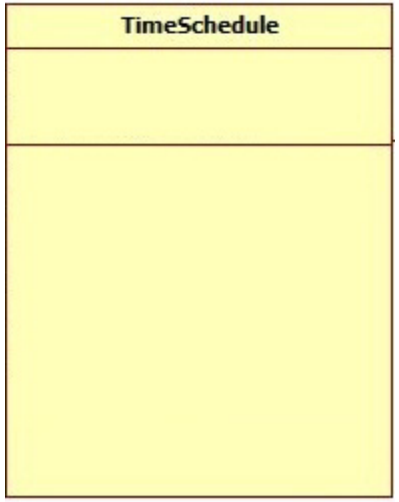
Attributes


Classroom
-day: int
-hour: int
-subject: string
-maxStudent: int
-studentList: Student
-professor: Professor
-location: string

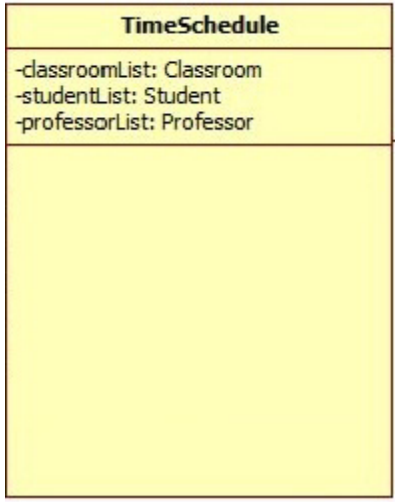
Functions


Classroom
-day: int
-hour: int
-subject: string
-maxStudent: int
-studentList: Student
-professor: Professor
-location: string
+SetDay(day: int)
+GetDay(): int
+SetHour(hour: int)
+GetHour(): int
+SetSubject(subject: string)
+GetSubject(): string
+SetMaxStudent(maxStudent: int)
+GetMaxStudent(): int
+AddStudent(st: Student)
+DeleteStudent(st: Student)
+SetProfessor(pf: Professor)
+GetProfessor(): Professor
+SetLocation(location: String)
+GetLocation(): String
+CheckStudentList()

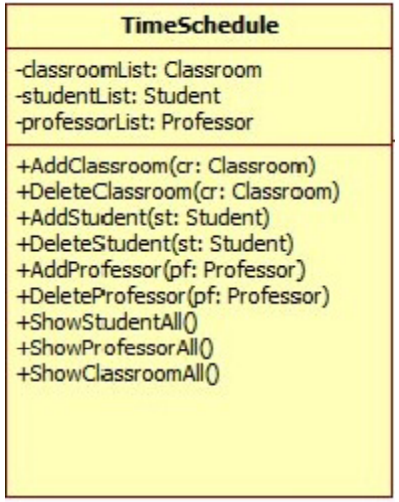
Class timeSchedule



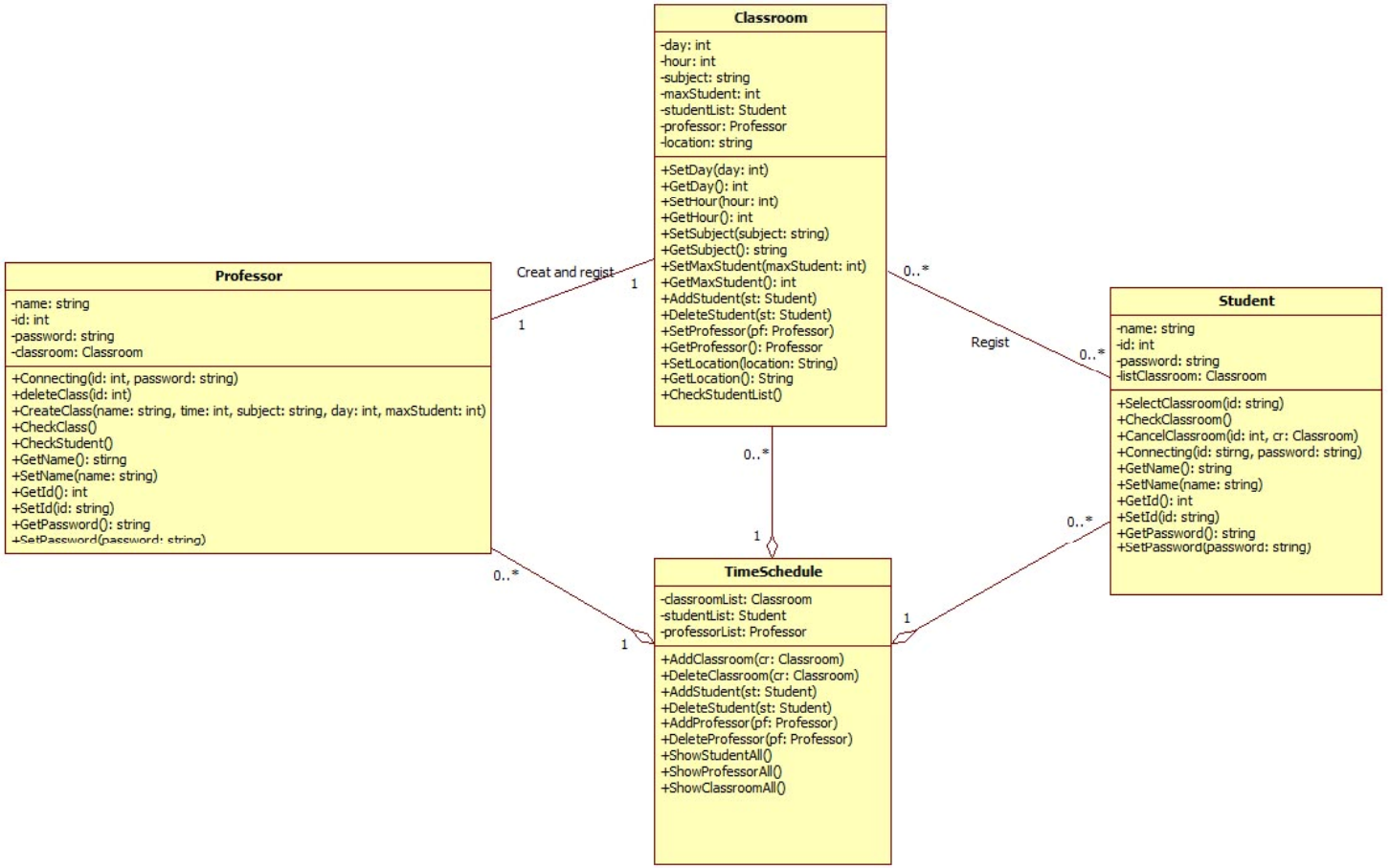
Attributes


TimeSchedule
-classroomList: Classroom
-studentList: Student
-professorList: Professor

Functions


TimeSchedule
-classroomList: Classroom
-studentList: Student
-professorList: Professor
+AddClassroom(cr: Classroom)
+DeleteClassroom(cr: Classroom)
+AddStudent(st: Student)
+DeleteStudent(st: Student)
+AddProfessor(pf: Professor)
+DeleteProfessor(pf: Professor)
+ShowStudentAll()
+ShowProfessorAll()
+ShowClassroomAll()

Class diagram



Thanks you for listening