

-students:ArrayList<Student>

+getStudents():ArrayList<Student>

+setStudents(ArrayList<Student>):void

+createStudent(int,String,String,ArrayList<String>):void

+StudentExpert()

parser:JSONParser

+readCourseJson():ArrayList<Course>

+readInstructorJson(InstructorExpert):void

+readStudentJson(int,StudentExpert):void

+InputReader()

Section -sectionId:int -students:ArrayList<Student> -date: Date -course: Course -instructor: Instructor + Section(int,ArrayList<Student>,Date,Course,Instructor) +getCourse():Course +getDate():Date +getInstructor():Instructor +getSectionId():int +getStudents():ArrayList<Student> +setCourse(Course):void +setDate(Date):void +setInstructor(Instructor):void +setSectionId(int):void +setStudents(ArrayList<Students>):void

Simulation
-studentExpert:StudentExpert
-inputReader: InputReader
-instructorExpert:InstructorExpert
+Simulation()
+start():void

```
- courseID: String
                                                                                                                                                                              - name: String
                                                                                                                                                                              - capacity: int
                                                                                                                                                                              - classroom: String
                                                                                                                                                                              - credit: int
                                                                                                                                                                              - semester: Semester
                                                                                                                                                                              - requiredCredit: int
                                                                                                                                                                              - students: ArrayList<Student>
                                                                                                                                                                              - ects: int
                                                                                                                                                                              - curve: int
                                                                                                                                                                              - prerequisites: ArrayList<Course>
                                                                                                                                                                              - sectionList: ArrayList<Section>
                                                                                                                                                                             + Course(String, String, int, String, int, int, int, int)
                                                                                                                                                                              + getCapacity(): int
                                                                                                                                                                              + getClassroom(): String
                                                                                                                                                                              + getCourseld(): String
                                                                                                                                                                              + getCredit(): int
                                                                                                                                                                              + getCruve(): int
                                                                                                                                                                              + getEcts(): int
                                                                                                                                                                              + getName(): String
                                                                                                                                                                              + getPrerequisites(): ArrayList<Course>
                                                                                                                                                                              + getRequiredCredit(): int
                                                                                                                                                                              + getSectionList(): ArratList<Section>
                                                                                                                                                                              + getSemester(): Semester
                                                                                                                                                                              + getStudents(): ArrayList<Student>
                                                                                                                                                                              + setCapacity(int): void
                                                                                                                                                                              + setClassroom(String): void
                                                                                                                                                                              + setCourseld(String): void
                                                                                                                                                                              + setCredit(int): void
                                                                                                                                                                              + setCurve(int): void
                                                                                                                                                                              + setEcts(int): void
                                                                                                                                                                              + setName(String): void
                                                                                                                                                                              + setPrerequisites(ArrayList<Course>): void
                                                                                                                                                                              + setRequiredCredit(int): void
                                                                                                                                                                              + setSectionList(ArrayList<Course>): void
                                                                                                                                                                              + setSemester(semester): void
                                                                                                                                                                              + setStudents(ArrayList<Student>): void
                                                                                                        ElectiveCourse
                                                                                                                                                                                                                                                                             MandatoryCourse
                                                                                                                                                                                              LabCourse
                                                                                   + ElectiveCourse(String, String, int, String, int, int, int, int)
                                                                                                                                                                            + LabCourse(String, String, int, String, int, int, int, int)
                                                                                                                                                                                                                                                            - labList: ArrayList<LabCourse>
                                                                                                                                                                                                                                                            + MandatoryCourse(String, String, int, String, int, int, int, int)
                                                                                                                                                                                                                                                          + getLabList(): ArrayList<LabCourse>:
                                                                                                                                                                                                                                                            + setLabList(ArrayList<LabCourse>): void
                   NonTechnicalElective
                                                                                                     UniversityElective
                                                                                                                                                                              TechnicalElective
                                                                                                                                                                                                                                                               FacultyTechnicalElective
                                                                                                                                                                                                                                             + FacultyTechnicalElective(String, String, int, String, int, int, int, int)
+ NonTechnicalElective(String, String, int, String, int, int, int, int)
                                                                                     + UniversityElective(String, String, int, String, int, int, int, int)
                                                                                                                                                           minimumCredit: int
                                                                                                                                                          + TechnicalElective(String, String, int, String, int, int, int, int, int)
                                                                                                                                                         + getMinimumCredit(): int
                                                                                                                                                         + setMinimumCredit(int): void
                                     Curriculum
                                                                                                      Semester
                        -courseList:ArrayList<Course>
                                                                                      -semesterId:int
                        +Curriculum(ArrayList<Course>)
                                                                                      -courseList:ArrayList<Course>
                                                                                                                                                                                                                                                                                         Grade
                                                                                                                                                                                                                      - student: Student
                        getCourseList():ArrayList<Course>
                                                                                     +Semester(int,ArrayList<Course>
                                                                                                                                                                                                                                                                         - course: Course
                                                                                                                                                                                                                       - course: Course
                        setCourseList(ArrayList<Course>):void
                                                                                      +getCourseList(): ArrayList<Course>
                                                                                                                                                                                                                                                                         - letterGrade: char
                                                                                      +getSemesterId():int
                                                                                                                                                                                                                        + Approver(Student, Course)
                                                                                                                                                                                                                                                                         - grade: int
                                                                                      +setCourseList(ArrayList<Course>):void
                                                                                                                                                                                                                      + approveCourse(): boolean
                                                                                                                                                                                                                                                                         + Grade(Course, char, int)
                                                                                                                                                                                                                       + capacityChecker(): boolean
                                                                                      +setSemesterId(int):void
                                                                                                                                                                                                                                                                         + getCourse(): Course
                                                                                                                                                                                                                       + getCourse(): Course
                                                                                                                                                                                                                                                                         + getGrade(): int
                                                                                                                                                                                                                      + getStudent(): Student
                                                                                                                                                                                                                                                                         + getLetterGrade(): char
                                                                                                                                                                                                                       + prerequisiteChecker(): boolean
                                                                                                                                                                                                                       + setCourse(Course): void
                                                                                                                                                                                                                                                                         + setCourse(Course): void
                                                                                                                                                                                                                      +setStudent(Student): void
                                                                                                                                                                                                                                                                         + setGrade(int): void
                                      InstructorExpert
                                                                                                                                                                                                                                                                         + setLetterGrade(char): void
                    -instructors:ArrayList<Instructor>
                    +InstructorExpert()
                    +createInstructor(int,String,String,ArrayList<String>:void
                     +getInstructors():ArrayList<Instructor>
                                                                                                                                                              Error
                     +setInstructors(ArrayList<Instructor>):void
                                                                                                                                                  - student: Student
                                                                                                                                                 + Error(Student)
                                                                                                                                                 + getStudent(): Student
                                                                                                                                                 + raiseError(): void
                                                                                                                                                 + setStudent(Student):void
                                                                                                                                                                                                                           NotInGraduationSemester
                                                                                                                                                                                                                                                                                                            UncompletedCreitError
             QuotaError
                                                                             TwoTechnicalElectiveError
                                                                                                                                                                                                           - course: Course
                                                                                                                                                                                                                                                                                          - course: Course
   -course: Course
                                                           - course: Course
                                                                                                                                                                                                           + NotInGraduationSemester(Student, Course)
                                                                                                                                                                                                                                                                                          + UncompletedCreditError(Student, Course)
    + QuotaError(Student, Course)
                                                           + TwoTechnicalElectiveError(Student, Course)
                                                                                                                                                                                                           + getCourse(): Course
                                                                                                                                                                                                                                                                                         + getCourse(): Course
                                                          + getCourse(): Course
    + getCourse(): Course
                                                                                                                                                                                                           + raiseError(): void
                                                                                                                                                                                                                                                                                         + raiseError(): void
    + raiseError(): void
                                                           + raiseError(): void
                                                                                                                                                                                                           + setCourse(Course): void
                                                                                                                                                                                                                                                                                          + setCourse(Course): void
  setCourse(Course): void
                                                           + setCourse(Course): void
```

Test

+ Database()

+ Test()

+ main(String[]): void

Course