- cgpa: float completedCredit: int - advisor: Advisor semester: Semester · hashMapGrade: Map<Course, Grade> selectedSessions: CourseSession nonTakenCourses: List<Course> schedule: Schedule transcript: Transcript studentID: String entryYear: int activeCourses: List<Course> - pastCourses: List<Course> selectedCourses: ArrayList<Course> failedCourses: List<Course> - getTranscript(): Transcript - getGpa(): float setActiveCourses(List<Course>): void - setNonTakenCourses(List<Course>): void - setAdvisor(Advisor): void setPastCourses(List<Course>): void - setCompletedCredit(int): void + toString(): String getCompletedCredit(): int getFailedCourses(): List<Course> + getSemester(): Semester - addCourseToSelectedCours setFailedCourses(List<Course>): void getSelectedSessions(): CourseSession getCgpa(): float getStudentID(): String setGpa(float): void calculateGpa(): void setStudentID(String): void setSchedule(Schedule): void - getSelectedCourses(): ArrayList<Course> setSemester(Semester): void getEntryYear(): int setEntryYear(int): void calculateCumulativeGpa(): void getHashMapGrade(): Map<Course, Grade> setTranscript(Transcript): void setSelectedCourses(ArrayList<Course>): vo setHashMapGrade(Map<Course, Grade>): v getPastCourses(): List<Course> setCgpa(float): void getNonTakenCourses(): List<Course> - printActiveCourses(): void getAdvisor(): Advisor setSelectedSessions(CourseSession): void - getActiveCourses(): List<Course> getSchedule(): Schedule

Student

gpa: float

## - advisor: Advisor studentObject: Student · courseController: CourseController - randomNumberGenerator: Random + selectCourse(Course): void + getRandomGenerator(): Random + startRegistration(): void - setRandomGenerator(Random): void + selectCourseToActiveCourse(): void + setStudent(Student): void + getCourseController(): CourseController + selectRandomElective(Course): Course + assignNextSemester(Student, Semester): + getStudent(): Student + getAdvisor(): Advisor + setCourseController(CourseController): voi + setAdvisor(Advisor): void

RegisterSystem

Person

setEmails(List<String>): void

surname: String

emails: List<String>

name: String

setId(int): void

+ toString(): String

getId(): int

getSurname(): String

- setName(String): void

getName(): String

setSurname(String): void

+ getEmails(): List<String>

CourseSession

semesterNoGenerate(): int

getSemesterName(): String

compareTo(Semester): int

setSemesterName(): void

**Schedule** 

+ createSchedule(List<Course>): voi

+ toString(): String

status: boolean

semesterName: String

· isStatus(): boolean

setStatus(boolean): void

getSemesterNo(): int

· id: int

## Transcript hashMapTranscript: Map<String, Object> - cumulativeGrade: int - grade: int - credit: int - cumulativeCredit: int student: Student + getGrade(): int + addGPA(): void + getCumulativeGrade(): int + setCumulativeGrade(int): void setGrade(int): void + getStudent(): Student + addCourse(Course): void + getCredit(): int + getCumulativeCredit(): int + setStudent(Student): void + createSemester(): Map<String, Object> + getHashMapTranscript(): Map<String, Object> + setHashMapTranscript(Map<String, Object>): vd + AppendSemester(Semester): void setCredit(int): void - setCumulativeCredit(int): void inputCreator

## **Advisor** Name : String student : Student course : Course client : List<Student> givenCourses : List<Courses> hmAdvisor : Map <String,Advisor> Approve(Course): Boolean - FTECheck(Student) : void MinCreditCheck(Student): void name() : String TECheck(Student) :void +addClient(Student) : void - addGivenCourse(Course) : void +getClient() : List<Student> +getCourse() :Course +getElectiveCourseCheck(): boolean +getGivenCourses(): List<Course> +getStudent() : Student +graduationProjectCheck(Student): void +prerequsiteCheck():boolean +quotaCheck() : boolean +selectNonTakenCourse(Course): Course +setClient(List<Student>): void +setCourse(Course) : void +setGivenCourses(List<Course>): void +setName(String) : void +setStudent(Student) : void StudentController advisors: List<Advisor>

## scheduleList: List<Schedule> - course: Course HMstudent: Map<Integer, Student> sessionId: int + setHMstudent(Map<Integer, Student>): void getSessionId(): int + createStudent(int, String, String, List<String>, Semester): + getScheduleList(): List<Schedule> - getStudent(int, String, String, List<String>, Semester): Stu + setCourse(Course): void + getAdvisors(): List<Advisor> + toString(): String + getHMstudent(): Map<Integer, Student> + setSessionId(int): void + printStudents(): void + getCourse(): Course + setAdvisors(List<Advisor>): void + setScheduleList(List<Schedule>): CourseSes CourseController - NT\_UCourses: List<ElectiveCourse> semesterNo: int semesterName: String defineSemesterName(int): String

	141_000discs. Eist Elective Codiscs
	- technicalCourses: List <electivecourse></electivecourse>
	- mandatoryCourses: List <course></course>
	- HMsemester: Map <integer, semester=""></integer,>
-	- facultyTechnicalCourses: List <electivecourse></electivecourse>
ŀ	- courses: List <course></course>
	+ addTechnicalCourse(ElectiveCourse): void
-	+ addPrerequisiteCourse(Course, Course): void
	+ getNT_UCourses(): List <electivecourse></electivecourse>
-	+ setHMsemester(Map <integer, semester="">): void</integer,>
	+ searchCourse(String): Course
	+ getHMsemester(): Map <integer, semester=""></integer,>
-	+ setFacultyTechnicalCourses(List <electivecourse>): void</electivecourse>
	+ printMandatoryCourses(): void
-	+ createSession(int, Course, List <schedule>): Session</schedule>
-	+ setTechnicalCourses(List <electivecourse>): void</electivecourse>
-	+ createMandatoryCourse(String, String, int, int, String, int): Co
-	+ getCourses(): List <course></course>
	+ setCourses(List <course>): void</course>
-	+ createElectiveCourse(String, String, String, int, int): Elective
-	+ printTechnicalElectiveCourses(): void
-	+ removeStudentsFromCourses(): void
	+ printFacultyTechnicalCourses(): void
-	+ addFacultyTechnicalCourse(ElectiveCourse): void
-	+ addSession(Session): void
-	+ printNT_UCourses(): void
-	+ getMandatoryCourses(): List <course></course>
-	+ addNTUCourse(ElectiveCourse): void
	+ createSemester(): void
	+ getFacultyTechnicalCourses(): List <electivecourse></electivecourse>
	+ setMandatoryCourses(List <course>): void</course>
	+ setNT_UCourses(List <electivecourse>): void</electivecourse>
	+ getTechnicalCourses(): List <electivecourse></electivecourse>
-	+ addMandatoryCourse(Course): void
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