



**Gazi University**  
**Engineering Faculty**  
**Computer Engineering Department**  
**2022 Fall Semester**  
**CENG213 Object Oriented Programming Course Term Project**

General information:

Within the scope of Ceng213 Object Oriented Programming (OOP) course, you are expected to design a department system as a term project.

Below is general information about the system to be designed.

- There are lecturers, staff, students, courses and areas in the department.
- Each lecturer in the department must have an identification number, name\_surname information. There is also a list of courses(max 10 course if number of course excess max number system give warning as “This lecturer Access to max course number”). taught by each lecturer.
- There are some staff for the execution of the works in the department. These staff can be secretary, technical staff, cleaning staff. It is obligatory for all staff to have an identification number, task information and working hours.
- Each student registered in the department has id number, name\_surname information, year, information about the courses s/he took and the grades of these courses. Undergraduate and graduate students can be registered to the department. There is also information about the degree (master or doctoral) of graduate students.
- When each student registers through the system, it is obligatory to enter name\_surname, id number and year information.
- It should be possible to assign courses to students over the system, to check whether they have taken a course or not, and to assign grades to the course they have taken. GPA should also be accessible.
- Student information cannot be edited. Only information can be accessed.
- Each lesson in the department; course code, name, credit, course location, lecturer information, and ID information of the students taking the course.
- When creating a course through the system, it should be created together with the course code, name, and credit information.
- It should not be possible to add to the student list through the course.
- Each course has an instructor. This lecturer should be able to be appointed and replaced by secretary.
- Courses in the department can be in the category of undergraduate or graduate courses.
- There should be areas such as lecturer offices, assistant staff offices, classrooms where lessons are given, social (canteen, garden, etc.) areas in the department.
- Only the head of the department (who is also a lecturer in the department) can give the graduate certificate. In order to be able to issue a graduate certificate, undergraduate students must take at least 40 courses and have a general grade point average of 2.0.

Master's students must have taken at least 7 courses and a general GPA of 2.5. In order for doctoral students to graduate, they must have taken at least 8 courses and have a general GPA of 3.0.

- While adding a course to the student, the student's ID information should be added to the relevant course.
- Notes for a course can be entered by the lecturer giving the course.
- You are expected to write the necessary exceptions (a student who takes the course does not have a grade, a student takes a non-existent course, etc.).
- The rest of the attributes and methods of the classes are entirely up to you.

#### Extras:

- In addition to the general information, you need to define an extra class. The class you define should be meaningful and should also be used for the overall system.
- 2 different attributes and 2 different methods (each attribute and method must be original and meaningful) for each class (except extra class) created according to the general information section. These added attributes and methods should be used in at least 1 other class in a meaningful way.
- *Important:* get-set and warning methods will not be counted as extra methods.

#### Restrictions:

- Code sharing between groups is strictly prohibited. Submitted documents will be passed through plagiarism programs (Turnitin, MOSS, etc.). In case of detection of cheating, all group members considered as cheating will receive 0 as a lab grade and legal action will be initiated.
  - Sharing should remain within the scope of exchange of ideas.
- Each group can ask 30 questions in total. If a question will be asked by mail, all groupmates must be added to the cc. If you are going to ask questions face to face, all groupmates must be together. Otherwise, the questions will not be answered.
  - Questions answered in the lab are not within this restriction.

#### Delivery:

Please check the class regularly. You are responsible for all announcements and updates.

Until 15 December 2022 at 23:55, your project codes should be uploaded to classroom.