CENG218 Labwork 1

Implement the following classes:

```
        Student
+ Student(int, string)
+ print(): void
# id: int
# name: string
```

```
           GradStudent
+ GradStudent(int, string, bool)
+ withThesis(): bool
- thesis: bool
```

```
       Course
+ Course(string)
# code: string
```

```
         UndergradCourse
+ UndergradCourse(string)
+ enroll(Student): void
+ listStudents(): void
- students: <Student List>
```

```
          GradCourse
+ GradCourse(string)
+ enroll(GradStudent): void
+ listStudents(): void
- students: <GradStudent List>
```
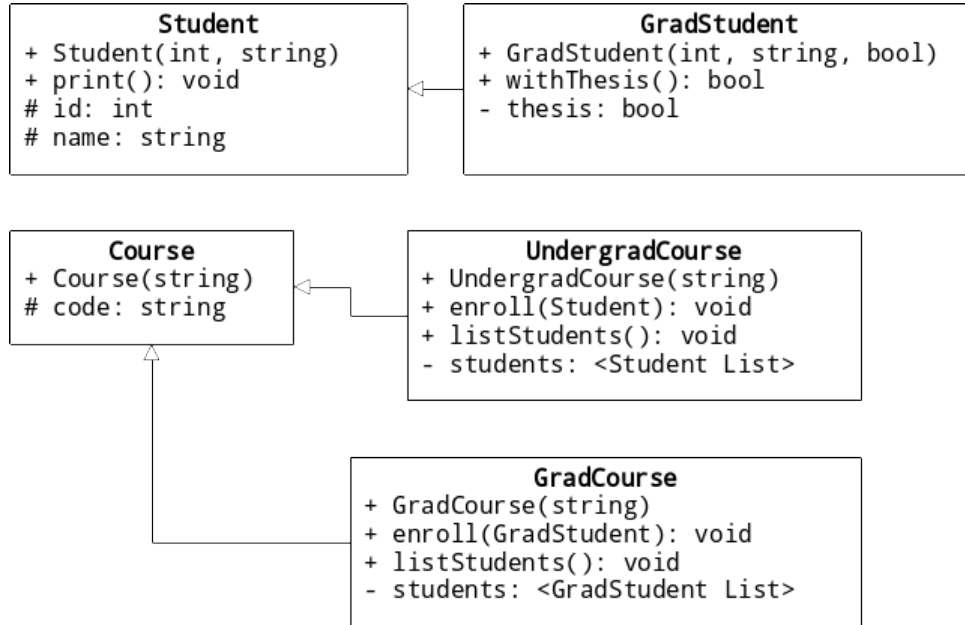
Write a menu driven student registration and course enrollment program using C++. Available courses are CENG105 and CENG111 for undergraduate students, CENG501, CENG502 and CENG599 courses for graduate students. All registered students must be enrolled to their respective courses. Depending on the value of **GradStudent**'s *thesis* variable, enrollment to CENG599 course is optional for graduate students.

Note: You are free to implement the lists in UndergradCourse and GradCourse classes in any way you like (static arrays, dynamic arrays, vectors, etc).

Below is a sample run for the program. User inputs are underlined.

```
Welcome to registration system!
1. Register new undergraduate student
2. Register new graduate student
3. Display student lists
4. Exit
Your choice: 1
Enter student ID and name: 101 Ege

... Your choice: 1
Enter student ID and name: 102 Doğa

... Your choice: 2
Enter student ID and name: 201 Zeynep
Enroll Zeynep to thesis? no

... Your choice: 2
Enter student ID and name: 202 Yunus
Enroll Yunus to thesis? yes
```

```
... Your choice: 3
CENG105:
1 101 - Ege
2 102 - Doğa
CENG111:
1 101 - Ege
2 102 - Doğa
CENG501:
1 201 - Zeynep
2 202 - Yunus (with thesis)
CENG502:
1 201 - Zeynep
2 202 - Yunus (with thesis)
CENG599:
1 202 - Yunus (with thesis)

... Your choice: 4
Bye!
```