# Course Listings

## Part 1 Description

Create two classes, Course and Department, in order to create course listings.

Course should store a name and a section number, a **constructor** that takes a String for the name and an integer for the section number, a **toString** method that returns a String containing the name and section number (ex: "CS416 1"), and **getName** and **getSection** methods to access the name and section number fields.

Department should store a name and an ArrayList of Courses that is the course listing. It must have a **constructor** that takes a String (the department name), an **add** method that takes a Course and adds it to the listing, a **remove** method that takes a Course and removes it from the listing, a **getListing** method that returns the ArrayList of Courses, and a **toString** method that returns a String with the department name on one line, and each course name and section number from the listing, each on their own line. For example:

| Computer Science  CS416 1  CS416 2  CS520 1  CS403 1  CS403 2 |
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**Reminder: You are allowed to have open the** [**Java API**](https://docs.oracle.com/en/java/javase/17/docs/api/index.html) **to help you look up any built-in Java class or method specification details you may choose to use. These may or may not be relevant to this question.**

# Freezable Interface

## Part 2 Description

Write a class Counter that implements the Freezable interface. The purpose of the interface is to be able to make an object "freeze" and not be allowed to change its values, and then to "unfreeze" and allow changes again.

Counter should store an integer for the current count and an integer for the amount to increment by (it may need other variables, as well.) You will need to write a constructor that takes both the starting count value and the increment amount. It should have a getCount method that returns the current count and an increment method which increases the count by the increment amount. When it is frozen, the getCount method should still work, but the increment method should not change any values until the counter is unfrozen. For example:

| Counter c = new Counter( 20, 2 );  c.getCount(); // returns 20  c.increment();  c.getCount(); // returns 22  c.freeze();  c.increment();  c.getCount(); // returns 22  c.unfreeze();  c.increment();  c.getCount(); // returns 24 |
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## Part 2 Starter Code

**Do not change Freezable.java**

| public interface Freezable{  public void freeze();  public void unfreeze();  } |
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