

***10.14** (*The MyDate class*) Design a class named `MyDate`. The class contains:

- The data fields `year`, `month`, and `day` that represent a date. `month` is 0-based i.e., 0 is for January.
- A no-arg constructor that creates a `MyDate` object for the current date.
- A constructor that constructs a `MyDate` object with a specified elapsed time since midnight, January 1, 1970, in milliseconds.
- A constructor that constructs a `MyDate` object with the specified year, month, and day.
- Three getter methods for the data fields `year`, `month`, and `day`, respectively.
- A method named `setDate(long elapsedTime)` that sets a new date for the object using the elapsed time.

Draw the UML diagram for the class then implement the class. Write a test program that creates two `MyDate` objects (using `new MyDate()` and `new MyDate(34355555133101L)`) and displays their year, month, and day.

HINT: The first two constructors will extract the year, month, and day from the elapsed time. For example, if the elapsed time is 561555550000 milliseconds, the year is 1987, the month is 9, and the day is 18. You may use the `GregorianCalendar` class discussed in **Programming Exercise 9.5** to simplify coding.