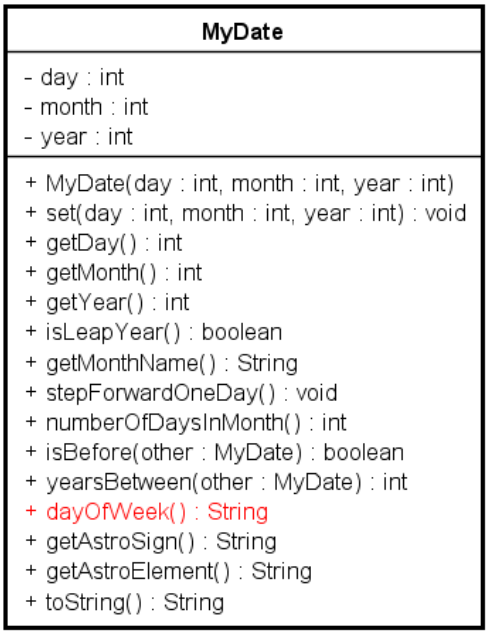
Exercise: MyDate, version 4



Create a new Module and name it `MyDate_v4` – and copy files from `MyDate_v3`.

Modify class `MyDate` adding a method `dayOfWeek` that returns a String with the name of the day (Monday, Tuesday, Wednesday, etc.)

The equation calculating the day of the week is slightly complicated, but if you read the details carefully and perhaps break it up into smaller parts, then it is not impossible to calculate. The equation looks like:

$$h = \left(q + \frac{13(m+1)}{5} + k + \frac{k}{4} + \frac{j}{4} + 5j \right) \% 7$$

- q is the day of the month (1 to 31)
- m is the month, but in a special format:
  March=3, April=4, ..., November=11, December=12, January=13, February=14
- k is the year of the century (you can find that as y%100)
  where y=year, if month is March to December and y = year-1, if month is January or February
- j is the century (you can find that as integer division of y/100)
  where y=year, if month is March to December and y = year-1, if month is January or February
- h is the day of the week that we are looking for, but the result will be in a slightly special format:
  0=Saturday, 1=Sunday, 2=Monday, 3=Tuesday, 4=Wednesday, 5=Thursday, 6=Friday

Now you can try out this new method in your test class, to find the day of the week for any date in any year. Test with today's date and find out which day of the week you were born.