Lab lecture exercises – 21 October 2016

- Assume again the Date class from week 2, https://canvas.bham.ac.uk/courses/ 21955/files/3260009/. It allows to create dates that do not make sense such as Date nonsense = new Date(35, "Monday", 2016).
 - (a) Write a method public static boolean admissible(int day, String month, int year) that returns true if and only if the year is greater than 0, the month is one of the twelve Strings "January", ..., "December", and the day is a number between (inclusively) 1 and the maximal number of days in the particular month. Particularly difficult is the month February, which may have 28 or 29 days, depending on whether the year is a leap year. For all years (greater than or equal to 1), a leap year is a year that is divisible by 4, exceptions are years that are divisible by 100 but not divisible by 400.
 - (b) Use the method admissible from above to change the constructor and the setters so that the arguments are only accepted if they are admissible, otherwise an exception is to be thrown.
- 2. Assume you have data given as on Ex2.data in the lab4.zip archive, that is, each line consists of exactly three Strings (first, the kind of data entry, second, either an empty String or a String with a link, and third, a description). Read in the data and store them in an appropriate ArrayList. Use this to create an html page that looks like the README.html file in the archive of Wednesday's lecture of Week 4.
- 3. When you type cal 2016 in the command line in Linux it will give you an overview of the year as displayed to the right. Write a method public static String cal(int year, int firstDay) which produces with the input cal(2016, 5) exactly this String. The 5 in the example is to indicate that the year starts with a Friday (Su, Mo, Tu, We, Th, Fr, Sa corresponding to 0, 1, 2, 3, 4, 5, 6, respectively) Note that the indentations have to exactly match, that is, for instance for the month October in the example the Fridays 7, 14, 21, and 28 have to be aligned to the right.

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