

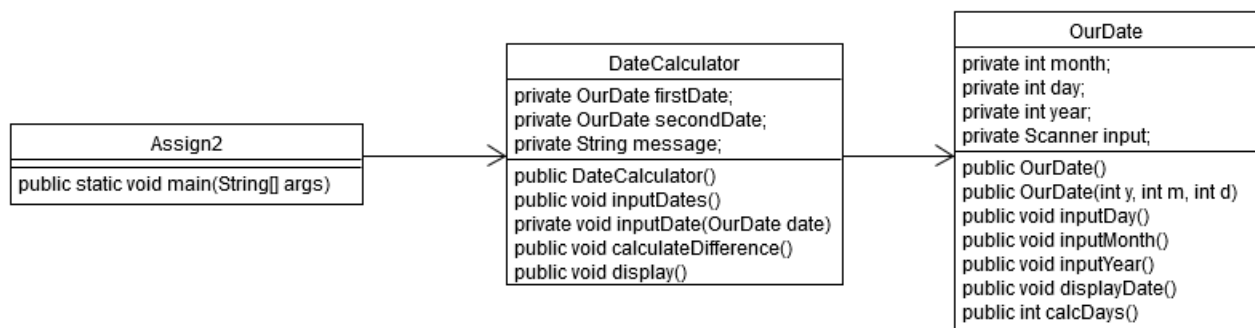
CST8110 - Introduction to Programming Assignment #2 – Classes and if statements

DUE: Friday March 16th at 23:59 SHARP – see submission instructions below. Late submissions receive a grade of 0.

Problem Description:

Generate for the following problem:

- Test plan AND
 - Write and test the program code in Java.
- This problem will produce a date calculator.
 - The program **must** ask for two dates.
 - The program **must** calculate the date difference, and give the following (in order of priority):
 - If there is no difference, display the dates are the same
 - If the difference is less than a week (7 days), display the difference in days
 - If the difference is less than a month (30 days), display the difference in weeks
 - If the difference is less than a year (360 days), display the difference in months
 - otherwise, display the difference in years
 - The program **must** indicate if the first date is earlier, later or the same as the second date, and by how much
 - The difference **must** not display negative values
 - The program **must** display single unit if the value is 1 (e.g. “1 month” not “1 months”)
 - The program **must** calculate and display the appropriate message (including proper date format)
 - You can assume every month has 30 days.
 - You can use the OurDate class that you created in Lab 3 as a starting point.
 - Your code also does NOT (YET) need to worry if the user inputs an invalid value for the input (example: invalid month). We will implement this in a future assignment.
 - The output of your code **must** match the samples **EXACTLY**.
 - You can (and should) change the tagline (mine’s a little dated)
 - Your code **must** have the following structure:



Sample Output 1: (Blue indicate user entered, black is displayed by the program)

Date Calculator - it's all relative

Enter first date
Enter a year: 2018
Enter a month: 4
Enter a day: 20

Enter second date
Enter a year: 2018
Enter a month: 1
Enter a day: 15

2018/4/20 is 3 months later than 2018/1/15

Sample Output 2: (Boundary case)

Date Calculator - it's all relative

Enter first date
Enter a year: 2017
Enter a month: 12
Enter a day: 30

Enter second date
Enter a year: 2018
Enter a month: 1
Enter a day: 1

2017/12/30 is 1 day earlier than 2018/1/1

Sample Output 3: (because assume every month has 30 days)

Date Calculator - it's all relative

Enter first date
Enter a year: 2017
Enter a month: 12
Enter a day: 31

Enter second date
Enter a year: 2018
Enter a month: 1
Enter a day: 1

2017/12/31 is the same as 2018/1/1

Submission Requirements:

- You **must** create a .zip file that contains **ONLY** the following:
 - Your program code – named “Assign2.java”, DateCalculator.java”, and “OurDate.java” - (with your name, section, lab teacher listed in comments in the header of each java file)
 - The test plan named “Assign2.doc” - (also with your name, section, lab teacher listed at the top)
- The .zip file **must** have the following name:
 - Your last name, your first name, the word “Assign” and the assign number.
Example RosenblumHowardAssign2.zip
- Submit the .zip file through the Assignment feature which has been enabled in the CST8110 Blackboard course. This should be directly under the Assignment description.
- Marks will be given for correct submission (i.e. marks will be deducted for incorrect submission!)