**Worksheet 11 – Date and Time**

1. Create a method that takes in a year, month and day and returns a LocalDate object with that information. The caller of the method (the main method) should first ask the user for the required information, call the method, and afterwards display the date in the following example format: 20/10/2016
2. Write a program which asks the user for a number of seconds (between 0 and 86400). From this number calculate how many hours, minutes and seconds there are, and use the LocalTime and the DateTimeFormatter classes to display the result in the following example format:  
   2 hrs, 30 mins, 40 secs
3. Ask the user to enter 2 dates (by entering the day, month and year of each). Convert both to LocalDate objects (ideally you use the method you created in question 1)). Afterwards, tell the user which date comes first and which comes second, or that they are equal.
4. The class java.time .Year has a static method to check if the given year is a leap year:

public static boolean isLeap(long year);

which returns true if the given year is a leap year, and false otherwise. You can use it as follows (assuming date1 is a DateTime object):

boolean leap = Year.isLeap(date1.getYear());

Write a program which asks the user to input a year. Afterwards, as a result display the number of days in the year (365 or 366).

1. Write a program which asks the user for his date of birth and create a LocalDate object from this data. Afterwards, create a LocalDate object with the current date. Use these two LocalDate objects to calculate and output the user’s age.
2. Write a program which asks the user to input the sentence “*she sells sea shells on the sea shore*”. Afterwards the program should check whether the sentence was entered correctly, and if it is correct (case-insensitive), it should show the time it took the user to enter the sentence.

Note that the following code can help you:

long startTime = System.currentTimeMillis();

// ... do something here...

long estimatedTime = System.currentTimeMillis() - startTime;